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# CHAPTER 1

## ANSWERS TO QUESTIONS

1. Internal expansion involves a normal increase in business resulting from increased demand for products and services, achieved without acquisition of preexisting firms.  Some companies expand internally by undertaking new product research to expand their total market, or by attempting to obtain a greater share of a given market through advertising and other promotional activities. Marketing can also be expanded into new geographical areas.

   External expansion is the bringing together of two or more firms under common control by acquisition.  Referred to as business combinations, these combined operations may be integrated, or each firm may be left to operate intact.

2. Four advantages of business combinations as compared to internal expansion are:

   (1) Management is provided with an established operating unit with its own experienced personnel, regular suppliers, productive facilities and distribution channels.
   (2) Expanding by combination does not create new competition.
   (3) Permits rapid diversification into new markets.
   (4) Income tax benefits.

3. The primary legal constraint on business combinations is that of possible antitrust suits.  The United States government is opposed to the concentration of economic power that may result from business combinations and has enacted two federal statutes, the Sherman Act and the Clayton Act to deal with antitrust problems.

4. (1) A horizontal combination involves companies within the same industry that have previously been competitors.
   (2) Vertical combinations involve a company and its suppliers and/or customers.
   (3) Conglomerate combinations involve companies in unrelated industries having little production or market similarities.

5. A statutory merger results when one company acquires all of the net assets of one or more other companies through an exchange of stock, payment of cash or property, or the issue of debt instruments.  The acquiring company remains as the only legal entity, and the acquired company ceases to exist or remains as a separate division of the acquiring company.

   A statutory consolidation results when a new corporation is formed to acquire two or more corporations, through an exchange of voting stock, with the acquired corporations ceasing to exist as separate legal entities.

   A stock acquisition occurs when one corporation issues stock or debt or pays cash for all or part of the voting stock of another company.  The stock may be acquired through market purchases or through direct purchase from or exchange with individual stockholders of the investee or subsidiary company.

6. A tender offer is an open offer to purchase up to a stated number of shares of a given corporation at a stipulated price per share.  The offering price is generally set above the current market price of the shares to offer an additional incentive to the prospective sellers.

7. A stock exchange ratio is generally expressed as the number of shares of the acquiring company that are to be exchanged for each share of the acquired company.

8. Defensive tactics include:
   (1) Poison pill – when stock rights are issued to existing stockholders that enable them to purchase additional shares at a price below market value, but exercisable only in the event of a potential takeover. This tactic is effective in some cases.
   (2) Greenmail – when the shares held by a would-be acquiring firm are purchased at an amount substantially in excess of their fair value. The shares are then usually held in treasury. This tactic is generally ineffective.
   (3) White knight or white squire – when a third firm more acceptable to the target company management is encouraged to acquire or merge with the target firm.
   (4) Pac-man defense – when the target firm attempts an unfriendly takeover of the would-be acquiring company.
   (5) Selling the crown jewels – when the target firms sells valuable assets to others to make the firm less attractive to an acquirer.

9. In an asset acquisition, the firm must acquire 100% of the assets of the other firm, while in a stock acquisition, a firm may gain control by purchasing 50% or more of the voting stock. Also, in a stock acquisition, formal negotiations with the target's management can sometimes be avoided. Further, in a stock acquisition, there might be advantages in keeping the firms as separate legal entities such as for tax purposes.

10. Does the merger increase or decrease expected earnings performance of the acquiring institution?
    From a financial and shareholder perspective, the price paid for a firm is hard to justify if earnings per share declines. When this happens, the acquisition is considered *dilutive*. Conversely, if the earnings per share increases as a result of the acquisition, it is referred to as an *accretive* acquisition.

11. Under the parent company concept, the writeup or writedown of the net assets of the subsidiary in the consolidated financial statements is restricted to the amount by which the cost of the investment is more or less than the book value of the net assets acquired. Noncontrolling interest in net assets is unaffected by such writeups or writedowns.
    The economic unit concept supports the writeup or writedown of the net assets of the subsidiary by an amount equal to the entire difference between the fair value and the book value of the net assets on the date of acquisition. In this case, noncontrolling interest in consolidated net assets is adjusted for its share of the writeup or writedown of the net assets of the subsidiary.

12. a) Under the parent company concept, noncontrolling interest is considered a liability of the consolidated entity whereas under the economic unit concept, noncontrolling interest is considered a separate equity interest in consolidated net assets.

    b) The parent company concept supports partial elimination of intercompany profit whereas the economic unit concept supports 100 percent elimination of intercompany profit.

    c) The parent company concept supports valuation of subsidiary net assets in the consolidated financial statements at book value plus an amount equal to the parent company's percentage interest in the difference between fair value and book value. The economic unit concept supports valuation of subsidiary net assets in the consolidated financial statements at their fair value on the date of acquisition without regard to the parent company's percentage ownership interest.

    d) Under the parent company concept, consolidated net income measures the interest of the shareholders of the parent company in the operating results of the consolidated entity. Under the economic unit concept, consolidated net income measures the operating results of the consolidated entity which is then allocated between the controlling and noncontrolling interests.

13. The implied fair value based on the price may not be relevant or reliable since the price paid is a negotiated price which may be impacted by considerations other than or in addition to the fair value of the net assets of the acquired company. There may be practical difficulties in determining the fair value of the consideration given and in allocating the total implied fair value to specific assets and liabilities.

    In the case of a less than wholly owned company, valuation of net assets at implied fair value violates the cost principle of conventional accounting and results in the reporting of subsidiary assets and liabilities using a different valuation procedure than that used to report the assets and liabilities of the parent company.

14. The economic entity is more consistent with the principles addressed in the FASB's conceptual framework. It is an integral part of the FASB's conceptual framework and is named specifically in SFAC No. 5 as one of the basic assumptions in accounting. The economic entity assumption views economic activity as being related to a particular unit of accountability, and the standard indicates that a parent and its subsidiaries represent one economic entity even though they may include several legal entities.

15. The FASB's conceptual framework provides the guidance for new standards. The quality of comparability was very much at stake in FASB's decision in 2001 to eliminate the pooling of interests method for business combinations. This method was also argued to violate the historical cost principle as it essentially ignored the value of the consideration (stock) issued for the acquisition of another company.

    The issue of consistency plays a role in the recent proposal to shift from the parent concept to the economic entity concept, as the former method valued a portion (the noncontrolling interest) of a given asset at prior book values and another portion (the controlling interest) of that same asset at exchange-date market value.

16. Comprehensive income is a broader concept, and it includes some gains and losses explicitly stated by FASB to bypass earnings. The examples of such gains that bypass earnings are some changes in market values of investments, some foreign currency translation adjustments and certain gains and losses, related to minimum pension liability.

    In the absence of gains or losses designated to bypass earnings, earnings and comprehensive income are the same.

**ANSWERS TO BUSINESS ETHICS CASE**

1. The third item will lead to the reduction of net income of the acquired company before acquisition, and will increase the reported net income of the combined company subsequent to acquisition. The accelerated payment of liabilities should not have an effect on net income in current or future years, nor should the delaying of the collection of revenues (assuming those revenues have already been recorded).

2. The first two items will decrease cash from operations prior to acquisition and will increase cash from operations subsequent to acquisition. The third item will not affect cash from operations.

3. As the manager of the acquired company I would want to make it clear that my future performance (if I stay on with the consolidated company) should not be evaluated based upon a future decline that is perceived rather than real. Further, I would express a concern that shareholders and other users might view such accounting maneuvers as sketchy.

4.
   a) Earnings manipulation may be regarded as unethical behavior regardless of which side of the acquirer/acquiree equation you're on. The benefits that you stand to reap may differ, and thus your potential liability may vary. But the ethics are essentially the same. Ultimately the company may be one unified whole as well, and the users that are affected by any kind of distorted information may view any participant in an unsavory light.

   b) See answer to (a).

## ANSWERS TO EXERCISES

### Exercise 1-1

**Part A** Normal earnings for similar firms = ($15,000,000 - $8,800,000) x 15% = $930,000

Expected earnings of target:

| | | |
|---|---|---|
| Pretax income of Condominiums, Inc., 2008 | $1,200,000 | |
| Subtract: Additional depreciation on building ($960,000 × 30%) | (288,000) | |
| Target's adjusted earnings, 2008 | | 912,000 |
| | | |
| Pretax income of Condominiums, Inc., 2009 | $1,500,000 | |
| Subtract: Additional depreciation on building | (288,000) | |
| Target's adjusted earnings, 2009 | | 1,212,000 |
| | | |
| Pretax income of Condominiums, Inc., 2010 | $950,000 | |
| Add: Extraordinary loss | 300,000 | |
| Subtract: Additional depreciation on building | (288,000) | |
| Target's adjusted earnings, 2010 | | 962,000 |
| Target's three year total adjusted earnings | | 3,086,000 |
| Target's three year average adjusted earnings ($3,086,000 ÷ 3) | | 1,028,667 |

Excess earnings of target = $1,028,667 - $930,000 = $98,667 per year

Present value of excess earnings (perpetuity) at 25%: $\frac{\$98{,}667}{25\%}$ = $394,668 (Estimated Goodwill)

Implied offering price = $15,000,000 – $8,800,000 + $394,668 = $6,594,668.

**Part B** Excess earnings of target (same as in Part A) = $98,667

Present value of excess earnings (ordinary annuity) for three years at 15%:
$98,667 × 2.28323 = $225,279

Implied offering price = $15,000,000 – $8,800,000 + $225,279 = $6,425,279.

Note: The sales commissions and depreciation on equipment are expected to continue at the same rate, and thus do not necessitate adjustments.

## Exercise 1-2

| | | |
|---|---|---|
| **Part A** | Cumulative 5 years net cash earnings | $850,000 |
| | Add nonrecurring losses | 48,000 |
| | Subtract extraordinary gains | (67,000) |
| | Five-years adjusted cash earnings | $831,000 |
| | Average annual adjusted cash earnings $\left(\frac{\$831{,}000}{5}\right)$ | $166,200 |

(a) Estimated purchase price = present value of ordinary annuity of $166,200 (n=5, rate= 15%)
$166,200 × 3.35216 = $557,129

| | | |
|---|---|---|
| (b) Less: Market value of identifiable assets of Beta | $750,000 | |
| Less: Liabilities of Beta | 320,000 | |
| Market value of net identifiable assets | | 430,000 |
| Implied value of goodwill of Beta | | $127,129 |

| | | |
|---|---|---|
| **Part B** | Actual purchase price | $625,000 |
| | Market value of identifiable net assets | 430,000 |
| | Goodwill purchased | $195,000 |

## Exercise 1-3

### Part A

Normal earnings for similar firms (based on tangible assets only) = $1,000,000 x 12% = $120,000

Excess earnings = $150,000 – $120,000 = $30,000

(1) Goodwill based on five years excess earnings undiscounted.
Goodwill = ($30,000)(5 years) = $150,000

(2) Goodwill based on five years discounted excess earnings
Goodwill = ($30,000)(3.6048) = $108,144
(present value of an annuity factor for n=5, I=12% is 3.6048)

(3) Goodwill based on a perpetuity
Goodwill = ($30,000)/.20 = $150,000

### Part B

The second alternative is the strongest theoretically if five years is a reasonable representation of the excess earnings duration. It considers the time value of money and assigns a finite life. Alternative three also considers the time value of money but fails to assess a duration period for the excess earnings. Alternative one fails to account for the time value of money. Interestingly, alternatives one and three yield the same goodwill estimation and it might be noted that the assumption of an infinite life is not as absurd as it might sound since the present value becomes quite small beyond some horizon.

### Part C

Goodwill = [Cost less (fair value of assets less the fair value of liabilities)],

Or, Cost less fair value of net assets
Goodwill = ($800,000 – ($1,000,000 - $400,000)) = $200,000

# CHAPTER 2

Note: The letter A indicated for a question, exercise, or problem means that the question, exercise, or problem relates to a chapter appendix.

## ANSWERS TO QUESTIONS

1. At the acquisition date, the information available (and through the end of the measurement period) is used to estimate the expected total consideration at fair value. If the subsequent stock issue valuation differs from this assessment, the *Exposure Draft (SFAS 1204-001)* expected to replace *FASB Statement No. 141R* specifies that equity should not be adjusted. The reason is that the valuation was determined at the date of the exchange, and thus the impact on the firm's equity was measured at that point based on the best information available then.

2. Pro forma financial statements (sometimes referred to as "as if" statements) are financial statements that are prepared to show the effect of planned or contemplated transactions.

3. For purposes of the goodwill impairment test, all goodwill must be assigned to a reporting unit. Goodwill impairment for each reporting unit should be tested in a two-step process. In the first step, the fair value of a reporting unit is compared to its carrying amount (goodwill included) at the date of the periodic review. The fair value of the unit may be based on quoted market prices, prices of comparable businesses, or a present value or other valuation technique. If the fair value at the review date is less than the carrying amount, then the second step is necessary. In the second step, the carrying value of the goodwill is compared to its implied fair value. (The calculation of the implied fair value of goodwill used in the impairment test is similar to the method illustrated throughout this chapter for valuing the goodwill at the date of the combination.)

4. The expected increase was due to the elimination of goodwill amortization expense. However, the impairment loss under the new rules was potentially larger than a periodic amortization charge, and this is in fact what materialized within the first year after adoption (a large impairment loss). If there was any initial stock price impact from elimination of goodwill amortization, it was only a short-term or momentum effect. Another issue is how the stock market responds to the goodwill impairment charge. Some users claim that this charge is a non-cash charge and should be disregarded by the market. However, others argue that the charge is an admission that the price paid was too high, and might result in a stock price decline (unless the market had already adjusted for this overpayment prior to the actual writedown).

## ANSWERS TO BUSINESS ETHICS CASE

a and b. The board has responsibility to look into anything that might suggest malfeasance or inappropriate conduct. Such incidents might suggest broader problems with integrity, honesty, and judgment. In other words, can you trust any reports from the CEO? If the CEO is not fired, does this send a message to other employees that ethical lapses are okay? Employees might feel that top executives are treated differently.

## ANSWERS TO EXERCISES

### Exercise 2-1

| | | | |
|---|---|---|---|
| **Part A** | Receivables | 228,000 | |
| | Inventory | 396,000 | |
| | Plant and Equipment | 540,000 | |
| | Land | 660,000 | |
| | Goodwill ($2,154,000 - $1,824,000) | 330,000 | |
| | Liabilities | | 594,000 |
| | Cash | | 1,560,000 |
| **Part B** | Receivables | 228,000 | |
| | Inventory | 396,000 | |
| | Plant and Equipment | 540,000 | |
| | Land | 660,000 | |
| | Liabilities | | 594,000 |
| | Cash | | 990,000 |
| | Gain on Business Combination ($1,230,000 - $990,000) | | 240,000 |

## Exercise 2-2

| | |
|---|---|
| Cash | $680,000 |
| Receivables | 720,000 |
| Inventories | 2,240,000 |
| Plant and Equipment (net) ($3,840,000 + $720,000) | 4,560,000 |
| Goodwill | 120,000 |
| Total Assets | $8,320,000 |
| | |
| Liabilities | 1,520,000 |
| Common Stock, $16 par ($3,440,000 + (.50 × $800,000)) | 3,840,000 |
| Other Contributed Capital ($400,000 + $800,000) | 1,200,000 |
| Retained Earnings | 1,760,000 |
| Total Equities | $8,320,000 |

Entries on Petrello Company's books would be:

| | | |
|---|---|---|
| Cash | 200,000 | |
| Receivables | 240,000 | |
| Inventory | 240,000 | |
| Plant and Equipment | 720,000 | |
| Goodwill * | 120,000 | |
| Liabilities | | 320,000 |
| Common Stock (25,000 × $16) | | 400,000 |
| Other Contributed Capital ($48 - $16) × 25,000 | | 800,000 |

* ($48 × 25,000) – [($1,480,000 – ($800,000 – $720,000) – $320,000]
= $1,200,000 – [$1,480,000 – $80,000 – $320,000] = $1,200,000 – $1,080,000 = $120,000

## Exercise 2-3

| | | |
|---|---|---|
| Accounts Receivable | 231,000 | |
| Inventory | 330,000 | |
| Land | 550,000 | |
| Buildings and Equipment | 1,144,000 | |
| Goodwill | 848,000 | |
| Allowance for Uncollectible Accounts ($231,000 - $198,000) | | 33,000 |
| Current Liabilities | | 275,000 |
| Bonds Payable | | 450,000 |
| Premium on Bonds Payable ($495,000 - $450,000) | | 45,000 |
| Preferred Stock (15,000 × $100) | | 1,500,000 |
| Common Stock (30,000 × $10) | | 300,000 |
| Other Contributed Capital ($25 - $10) × 30,000 | | 450,000 |
| Cash | | 50,000 |

| | |
|---|---|
| Cost paid ($1,500,000 + $750,000 + $50,000) = | $2,300,000 |
| Fair value of net assets (198,000 + 330,000 + 550,000 + 1,144,000 – 275,000 – 495,000) = | 1,452,000 |
| Goodwill = | $848,000 |

## Exercise 2-4

| | | |
|---|---|---|
| Cash | 96,000 | |
| Receivables | 55,200 | |
| Inventory | 126,000 | |
| Land | 198,000 | |
| Plant and Equipment | 466,800 | |
| Goodwill* | 137,450 | |
| Accounts Payable | | 44,400 |
| Bonds Payable | | 480,000 |
| Premium on Bonds Payable** | | 45,050 |
| Cash | | 510,000 |

| | | |
|---|---|---|
| ** Present value of maturity value, 12 periods @ 4%: | 0.6246 × $480,000 = | $299,808 |
| Present value of interest annuity, 12 periods @ 4%: | 9.38507 × $24,000 = | 225,242 |
| Total present value | | 525,050 |
| Par value | | 480,000 |
| Premium on bonds payable | | $ 45,050 |

| | | |
|---|---|---|
| *Cash paid | | $510,000 |
| Less: Book value of net assets acquired ($897,600 – $44,400 – $480,000) | | (373,200) |
| Excess of cash paid over book value | | 136,800 |
| Increase in inventory to fair value | (15,600) | |
| Increase in land to fair value | (28,800) | |
| Increase in bond to fair value | 45,050 | |
| Total increase in net assets to fair value | | 650 |
| Goodwill | | $137,450 |

## Exercise 2-5

| | | |
|---|---|---|
| Current Assets | 960,000 | |
| Plant and Equipment | 1,440,000 | |
| Goodwill | 336,000 | |
| Liabilities | | 216,000 |
| Cash | | 2,160,000 |
| Liability for Contingent Consideration | | 360,000 |

## Exercise 2-6

The amount of the contingency is $500,000 (10,000 shares at $50 per share)

| | | | |
|---|---|---|---|
| **Part A** | Goodwill | 500,000 | |
| | Paid-in-Capital for Contingent Consideration | | 500,000 |
| **Part B** | Paid-in-Capital for Contingent Consideration | 500,000 | |
| | Common Stock ($10 par) | | 100,000 |
| | Paid-In-Capital in Excess of Par | | 400,000 |

Platz Company does not adjust the original amount recorded as equity.

## Exercise 2-7

| | | |
|---|---|---|
| 1. (c) | Cost (8,000 shares @ $30) | $240,000 |
| | Fair value of net assets acquired | 228,800 |
| | Excess of cost over fair value (goodwill) | $ 11,200 |
| 2. (c) | Cost (8,000 shares @ $30) | $240,000 |
| | Fair value of net assets acquired ($90,000 + $242,000 – $56,000) | 276,000 |
| | Excess of fair value over cost (gain) | $ 36,000 |

## Exercise 2-8

| | | |
|---|---|---|
| Current Assets | 362,000 | |
| Long-term Assets ($1,890,000 + $20,000) + ($98,000 + $5,000) | 2,013,000 | |
| Goodwill * | 395,000 | |
| Liabilities | | 119,000 |
| Long-term Debt | | 491,000 |
| Common Stock (144,000 × $5) | | 720,000 |
| Other Contributed Capital (144,000 × ($15 - $5)) | | 1,440,000 |

* (144,000 × $15) – [$362,000 + $2,013,000 – ($119,000 + $491,000)] = $395,000

Total shares issued $\left(\frac{\$700{,}000}{\$5} + \frac{\$20{,}000}{\$5}\right)$ = 144,000

Fair value of stock issued (144,000 × $15) = $2,160,000

**Exercise 2-9**

**Case A**

| | |
|---|---|
| Cost (Purchase Price) | $130,000 |
| Less: Fair Value of Net Assets | 120,000 |
| Goodwill | $ 10,000 |

**Case B**

| | |
|---|---|
| Cost (Purchase Price) | $110,000 |
| Less: Fair Value of Net Assets | 90,000 |
| Goodwill | $ 20,000 |

**Case C**

| | |
|---|---|
| Cost (Purchase Price) | $15,000 |
| Less: Fair Value of Net Assets | 20,000 |
| Gain | ($ 5,000) |

| | Assets | | | Liabilities | Retained Earnings (Gain) |
|---|---|---|---|---|---|
| | Goodwill | Current Assets | Long-Lived Assets | | |
| Case A | $10,000 | $20,000 | $130,000 | $30,000 | 0 |
| Case B | 20,000 | 30,000 | 80,000 | 20,000 | 0 |
| Case C | 0 | 20,000 | 40,000 | 40,000 | 5,000 |

**Exercise 2-10**

**Part A.**

| | | | |
|---|---|---|---|
| 2011: **Step 1**: | Fair value of the reporting unit | | $400,000 |
| | Carrying value of unit: | | |
| | Carrying value of identifiable net assets | $330,000 | |
| | Carrying value of goodwill ($450,000 - $375,000) | 75,000 | |
| | | | 405,000 |
| | Excess of carrying value over fair value | | $ 5,000 |

The excess of carrying value over fair value means that step 2 is required.

| | | |
|---|---|---|
| **Step 2:** | Fair value of the reporting unit | $400,000 |
| | Fair value of identifiable net assets | 340,000 |
| | Implied value of goodwill | 60,000 |
| | Recorded value of goodwill ($450,000 - $375,000) | 75,000 |
| | Impairment loss | $ 15,000 |

| | | | |
|---|---|---|---|
| 2012: **Step 1**: | Fair value of the reporting unit | | $400,000 |
| | Carrying value of unit: | | |
| | Carrying value of identifiable net assets | $320,000 | |
| | Carrying value of goodwill ($75,000 - $15,000) | 60,000 | |
| | | | 380,000 |
| | Excess of fair value over carrying value | | $ 20,000 |

The excess of fair value over carrying value means that step 2 is **not** required.

| | | | |
|---|---|---|---|
| 2013: **Step 1**: | Fair value of the reporting unit | | $350,000 |
| | Carrying value of unit: | | |
| | Carrying value of identifiable net assets | $300,000 | |
| | Carrying value of goodwill ($75,000 - $15,000) | 60,000 | |
| | | | 360,000 |
| | Excess of carrying value over fair value | | $ 10,000 |

The excess of carrying value over fair value means that step 2 is required.

| | | |
|---|---|---|
| **Step 2**: | Fair value of the reporting unit | $350,000 |
| | Fair value of identifiable net assets | 325,000 |
| | Implied value of goodwill | 25,000 |
| | Recorded value of goodwill ($75,000 - $15,000) | 60,000 |
| | Impairment loss | $ 35,000 |

**Part B.**

| | | | |
|---|---|---|---|
| 2011: | Impairment Loss—Goodwill | 15,000 | |
| | Goodwill | | 15,000 |
| 2012: | No entry | | |
| 2013: | Impairment Loss—Goodwill | 35,000 | |
| | Goodwill | | 35,000 |

**Part C.**

*SFAS No. 142* specifies the presentation of goodwill in the balance sheet and income statement (if impairment occurs) as follows:

- The aggregate amount of goodwill should be a separate line item in the balance sheet.
- The aggregate amount of losses from goodwill impairment should be shown as a separate line item in the operating section of the income statement unless some of the impairment is associated with a discontinued operation (in which case it is shown net-of-tax in the discontinued operation section).

**Part D.**

In a period in which an impairment loss occurs, *SFAS No. 142* mandates the following disclosures in the notes:

(1) A description of the facts and circumstances leading to the impairment;
(2) The amount of the impairment loss and the method of determining the fair value of the reporting unit;
(3) The nature and amounts of any adjustments made to impairment estimates from earlier periods, if significant.

**Exercise 2-11**

a. Fair Value of Identifiable Net Assets

| | |
|---|---|
| Book values $500,000 – $100,000 = | $400,000 |
| Write up of Inventory and Equipment: | |
| ($20,000 + $30,000) = | 50,000 |
| Purchase price above which goodwill would result | $450,000 |

b. Equipment would not be written down, regardless of the purchase price, unless it was reviewed and determined to be overvalued originally.
c. A gain would be shown if the purchase price was below $450,000.
d. Anything below $450,000 is technically considered a bargain.
e. Goodwill would be $50,000 at a purchase price of $500,000 or ($450,000 + $50,000).

## Exercise 2-12A

| | | |
|---|---|---|
| Cash | 20,000 | |
| Accounts Receivable | 112,000 | |
| Inventory | 134,000 | |
| Land | 55,000 | |
| Plant Assets | 463,000 | |
| Discount on Bonds Payable | 20,000 | |
| Goodwill* | 127,200 | |
| Allowance for Uncollectible Accounts | | 10,000 |
| Accounts Payable | | 54,000 |
| Bonds Payable | | 200,000 |
| Deferred Income Tax Liability | | 67,200 |
| Cash | | 600,000 |

| | |
|---|---|
| Cost of acquisition | $600,000 |
| Book value of net assets acquired ($80,000 + $132,000 + $160,000) | 372,000 |
| Difference between cost and book value | 228,000 |
| Allocated to: | |
| Increase inventory, land, and plant assets to fair value ($52,000 + $25,000 + $71,000) | (148,000) |
| Decrease bonds payable to fair value | (20,000) |
| Establish deferred income tax liability ($168,000 × 40%) | 67,200 |
| Balance assigned to goodwill | $127,200 |

## ANSWERS TO PROBLEMS

## Problem 2-1

| | | |
|---|---|---|
| Current Assets | 85,000 | |
| Plant and Equipment | 150,000 | |
| Goodwill* | 100,000 | |
| Liabilities | | 35,000 |
| Common Stock [(20,000 shares @ $10/share)] | | 200,000 |
| Other Contributed Capital [(20,000 × ($15 – $10))] | | 100,000 |

| | | |
|---|---|---|
| Acquisition Costs Expense | 20,000 | |
| Cash | | 20,000 |
| | | |
| Other Contributed Capital | 6,000 | |
| Cash | | 6,000 |

To record the direct acquisition costs and stock issue costs

* Goodwill = Excess of Consideration of $335,000 (stock valued at $300,000 plus debt assumed of $35,000) over Fair Value of Identifiable Assets of $235,000 (total assets of $225,000 plus PPE fair value adjustment of $10,000)

**Problem 2-2**

Acme Company
Balance Sheet
October 1, 2011
(000)

**Part A.**

| | |
|---|---|
| Assets (except goodwill) ($3,900 + $9,000 + $1,300) | $14,200 |
| Goodwill (1) | 1,160 |
| Total Assets | $15,360 |
| | |
| Liabilities ($2,030 + $2,200 + $260) | $4,490 |
| Common Stock (180 × $20) + $2,000 | 5,600 |
| Other Contributed Capital (180 × ($50 – $20)) | 5,400 |
| Retained Earnings | (130) |
| Total Liabilities and Equity | $15,360 |

| | | |
|---|---|---|
| (1) Cost (180 × $50) | | $9,000 |
| Fair value of net assets acquired: | | |
| Fair value of assets of Baltic and Colt | $10,300 | |
| Less liabilities assumed | 2,460 | 7,840 |
| Goodwill | | $1,160 |

**Problem 2-2 (continued)**

**Part B.**

**Baltic**

| | | | |
|---|---|---|---|
| 2012: | **Step1**: Fair value of the reporting unit | | $6,500,000 |
| | Carrying value of unit: | | |
| | Carrying value of identifiable net assets | 6,340,000 | |
| | Carrying value of goodwill | 200,000* | |
| | Total carrying value | | 6,540,000 |

*[(140,000 x $50) – ($9,000,000 – $2,200,000)]

The excess of carrying value over fair value means that step 2 is required.

| | |
|---|---|
| **Step 2:** Fair value of the reporting unit | $6,500,000 |
| Fair value of identifiable net assets | 6,350,000 |
| Implied value of goodwill | 150,000 |
| Recorded value of goodwill | 200,000 |
| Impairment loss | $ 50,000 |

(because $150,000 < $200,000)

**Colt**

| | | | |
|---|---|---|---|
| 2012: | **Step1**: Fair value of the reporting unit | | $1,900,000 |
| | Carrying value of unit: | | |
| | Carrying value of identifiable net assets | $1,200,000 | |
| | Carrying value of goodwill | 960,000* | |
| | Total carrying value | | 2,160,000 |

*[(40,000 x $50) – ($1,300,000 – $260,000)]

The excess of carrying value over fair value means that step 2 is required.

| | |
|---|---|
| **Step 2:** Fair value of the reporting unit | $1,900,000 |
| Fair value of identifiable net assets | 1,000,000 |
| Implied value of goodwill | 900,000 |
| Recorded value of goodwill | 960,000 |
| Impairment loss | $ 60,000 |

(because $900,000 < $960,000)

Total impairment loss is $110,000.

Journal entry:

| | | |
|---|---|---|
| Impairment Loss | $110,000 | |
| Goodwill | | $110,000 |

**Problem 2-3**

| | | |
|---|---|---|
| Present value of maturity value, 20 periods @ 6%: | 0.3118 × $600,000 = | $187,080 |
| Present value of interest annuity, 20 periods @ 6%: | 11.46992 × $30,000 = | 344,098 |
| Total Present value | | 531,178 |
| Par value | | 600,000 |
| Discount on bonds payable | | $68,822 |

| | | |
|---|---|---|
| Cash | 114,000 | |
| Accounts Receivable | 135,000 | |
| Inventory | 310,000 | |
| Land | 315,000 | |
| Buildings | 54,900 | |
| Equipment | 39,450 | |
| Bond Discount ($40,000 + $68,822) | 108,822 | |
| Current Liabilities | | 95,300 |
| Bonds Payable ($300,000 + $600,000) | | 900,000 |
| Gain on Purchase of Business | | 81,872 |

Computation of Excess of Net Assets Received Over Cost

| | |
|---|---|
| Cost (Purchase Price) ($531,178 plus liabilities assumed of $95,300 and $260,000) | $886,478 |
| Less: Total fair value of assets received | $968,350 |
| Excess of fair value of net assets over cost | ($ 81,872) |

**Problem 2-4**

**Part A** January 1, 2011

| | | |
|---|---|---|
| Accounts Receivable | 72,000 | |
| Inventory | 99,000 | |
| Land | 162,000 | |
| Buildings | 450,000 | |
| Equipment | 288,000 | |
| Goodwill* | 54,000 | |
| Allowance for Uncollectible Accounts | | 7,000 |
| Accounts Payable | | 83,000 |
| Note Payable | | 180,000 |
| Cash | | 720,000 |
| Liability for Contingent Consideration | | 135,000 |

*Computation of Goodwill

| | |
|---|---|
| Cash paid ($720,000 + $135,000) | $855,000 |
| Total fair value of net assets acquired ($1,064,000 - $263,000) | 801,000 |
| Goodwill | $ 54,000 |

**Problem 2-4 (continued)**

**Part B** January 2, 2013

| | | |
|---|---|---|
| Liability for Contingent Consideration | 135,000 | |
| Cash | | 135,000 |

**Part C** January 2, 2013

| | | |
|---|---|---|
| Liability for Contingent Consideration | 135,000 | |
| Income from Change in Estimate | | 135,000 |

**Problem 2-5**

Pepper Company
Pro Forma Balance Sheet
Giving Effect to Proposed Issue of Common Stock and Note Payable for
All of the Common Stock of Salt Company under Purchase Accounting
December 31, 2010

| | Audited<br>Balance Sheet | Adjustments | Pro Forma<br>Balance Sheet |
|---|---|---|---|
| Cash | $180,000 | 405,000 | $585,000 |
| Receivables | 230,000 | (60,000)<br>117,000 | 287,000 |
| Inventories | 231,400 | 134,000 | 365,400 |
| Plant Assets | 1,236,500 | 905,000 (1) | 2,141,500 |
| Goodwill | | 181,500 | 181,500 |
| Total Assets | $1,877,900 | | $3,560,400 |
| | | | |
| Accounts Payable | $255,900 | (60,000)<br>180,000 | $375,900 |
| Notes Payable, 8% | 0 | 300,000 | 300,000 |
| Mortgage Payable | 180,000 | 152,500 | 332,500 |
| Common Stock, $20 par | 900,000 | 600,000 | 1,500,000 |
| Additional Paid-in Capital | 270,000 | 510,000 (2) | 780,000 |
| Retained Earnings | 272,000 | | 272,000 |
| Total Liabilities and Equity | $1,877,900 | | $3,560,400 |

**Problem 2-5 (continued)**

| | |
|---|---|
| Change in Cash | |
| Cash from stock issue ($37 × 30,000) | $1,110,000 |
| Less: Cash paid for acquisition | (800,000) |
| Plus: Cash acquired in acquisition | 95,000 |
| Total change in cash | $ 405,000 |

| | |
|---|---|
| Goodwill: | |
| Cost of acquisition | $1,100,000 |
| Net assets acquired ($340,000 + $179,500 + $184,000) | 703,500 |
| Excess cost over net assets acquired | $396,500 |
| Assigned to plant assets | 215,000 |
| Goodwill | $ 181,500 |

(1) $690,000 + $215,000 (2) ($37 - $20) × 30,000

**Problem 2-6**

Ping Company
Pro Forma Income Statement for the Year 2011
Assuming a Merger of Ping Company and Spalding Company

| | | |
|---|---|---|
| Sales (1) | | $6,345,972 |
| Cost of goods sold: | | |
| Fixed Costs (2) | $824,706 | |
| Variable Costs (3) | 2,464,095 | 3,288,801 |
| Gross Margin | | 3,057,171 |
| | | |
| Selling Expenses (4) | $785,910 | |
| Other Expenses (5) | 319,310 | 1,105,220 |
| | | |
| Net Income | | $1,951,951 |

$$\frac{\$1{,}951{,}951 - (\$952{,}640 + \$499{,}900)}{0.20} = \frac{\$499{,}411}{0.20} = \$2{,}497{,}055$$

Since $2,497,055 is greater than $1,800,000 Ping should buy Spalding.

| | |
|---|---|
| (1) $3,510,100 + $2,365,800 = $5,875,900 × 1.2 × .9 = | $6,345,972 |
| (2) ($1,752,360 × .30) + ($1,423,800 × .30 × .70) = | $824,706 |
| (3) $\$1{,}752{,}360 \times .70 \times \dfrac{\$5{,}875{,}900 \times 1.2}{\$3{,}510{,}100} =$ | $2,464,095 |
| (4) ($632,500 + $292,100) × .85 = | $785,910 |
| (5) $172,600 × 1.85 = | $319,310 |

**Problem 2-7A**

| | | | |
|---|---|---|---|
| **Part A** | Receivables | 125,000 | |
| | Inventory | 195,000 | |
| | Land | 120,000 | |
| | Plant Assets | 567,000 | |
| | Patents | 200,000 | |
| | Deferred Tax Asset ($60,000 x 35%) | 21,000 | |
| | Goodwill* | 154,775 | |
| | Current Liabilities | | 89,500 |
| | Bonds Payable | | 300,000 |
| | Premium on Bonds Payable | | 60,000 |
| | Deferred Tax Liability | | 93,275 |
| | Common Stock (30,000 × $2) | | 60,000 |
| | Other Contributed Capital (30,000 × $26) | | 780,000 |

| | |
|---|---|
| Cost of acquisition (30,000 × $28) | $840,000 |
| Book value of net assets acquired ($120,000 + $164,000 + $267,000) | 551,000 |
| Difference between cost and book value | 289,000 |
| Allocated to: | |
| Increase inventory, land, plant assets, and patents to fair value | (266,500) |
| Deferred income tax liability (35% × $266,500) | 93,275 |
| Increase bonds payable to fair value | 60,000 |
| Deferred income tax asset (35% × $60,000) | (21,000) |
| Balance assigned to goodwill | $154,775 |

| | | | |
|---|---|---|---|
| **Part B** | Income Tax Expense (Balancing amount) | 148,006 | |
| | Deferred Tax Liability ($51,125 × 35%)* | 17,894 | |
| | Deferred Tax Asset ($6,000 × 35%) | | 2,100 |
| | Income Tax Payable ($468,000 × 35%) | | 163,800 |

| | | |
|---|---|---|
| * | Inventory: | $28,000 |
| | Plant Assets, $\frac{\$100,000}{10}$ | 10,000 |
| | Patents, $\frac{\$105,000}{8}$ | 13,125 |
| | Total | $51,125 |

# CHAPTER 3

Note: The letter A or B indicated for a question, exercise, or problem means that the question, exercise, or problem relates to a chapter appendix.

## ANSWERS TO QUESTIONS

1. (1) Stock acquisition is greatly simplified by avoiding the lengthy negotiations required in an exchange of stock for stock in a complete takeover.
   (2) Effective control can be accomplished with more than 50% but less than all of the voting stock of a subsidiary; thus the necessary investment is smaller.
   (3) An individual affiliate's legal existence provides a measure of protection of the parent's assets from attachment by creditors of the subsidiary.

2. The purpose of consolidated financial statements is to present, primarily for the benefit of the shareholders and creditors of the parent company, the results of operations and the financial position of a parent company and its subsidiaries essentially as if the group were a single company with one or more branches or divisions. The presumption is that these consolidated statements are more meaningful than separate statements and necessary for fair presentation. Emphasis then is on substance rather than legal form, and the legal aspects of the separate entities are therefore ignored in light of economic aspects.

3. Each legal entity must prepare financial statements for use by those who look to the legal entity for analysis. Creditors of the subsidiary will use the separate statements in assessing the degree of protection related to their claims. Noncontrolling shareholders, too, use these individual statements in determining risk and the amounts available for dividends. Regulatory agencies are concerned with the net resources and results of operations of the individual legal entities.

4. (1) Control should exist in fact, through ownership of more than 50% of the voting stock of the subsidiary.
   (2) The intent of control should be permanent. If there are current plans to dispose of a subsidiary, then the entity should not be consolidated.
   (3) Majority owners must have control. Such would not be the case if the subsidiary were in bankruptcy or legal reorganization, or if the subsidiary were in a foreign country where political forces were such that control by majority owners was significantly curtailed.

5. Consolidated workpapers are used as a tool to facilitate the preparation of consolidated financial statements. Adjusting and eliminating entries are entered on the workpaper so that the resulting consolidated data reflect the operations and financial position of two or more companies under common control.

6. Noncontrolling interest represents the equity in a partially owned subsidiary by those shareholders who are not members in the affiliation and should be accounted and presented in equity, separately from the parents' shareholders equity. Alternative views have included: presenting the noncontrolling interest as a liability from the perspective of the controlling shareholders; presenting the noncontrolling interest between liabilities and shareholders' equity to acknowledge its hybrid status; presenting it as a contra-asset so that total assets reflect only the parent's share; and

presenting it as a component of owners' equity (the choice approved by FASB in its most recent exposure drafts).

7. The fair, or current, value of one or more specific subsidiary assets may exceed its recorded value, or specific liabilities may be overvalued. In either case, an acquiring company might be willing to pay more than book value. Also, goodwill might exist in the form of above normal earnings. Finally, the parent may be willing to pay a premium for the right to acquire control and the related economic advantages gained.

8. The determination of the percentage interest acquired, as well as the total equity acquired, is based on shares outstanding; thus, treasury shares must be excluded. The treasury stock account should be eliminated by offsetting it against subsidiary stockholder equity accounts. The accounts affected as well as the amounts involved will depend upon whether the cost or par method is used to account for the treasury stock.

9. None. The full amount of all intercompany receivables and payables is eliminated without regard to the percentage of control held by the parent.

10A. The decision in *SFAS No. 109* and *SFAS No. 141R* [topics 740 and 805] is primarily a display issue and would only affect the calculation of consolidated net income if there were changes in expected future tax rates that resulted in an adjustment to the balance of deferred tax assets or deferred tax liabilities. Prior to *SFAS No. 109* and *SFAS No. 141R*, purchased assets and liabilities were displayed at their net of tax amounts and related figures for amortization and depreciation were based on the net of tax amounts. With the adoption of *SFAS No. 109* and *SFAS No. 141R*, assets and liabilities are displayed at fair values and the tax consequences for differences between their assigned values and their tax bases are displayed separately as deferred tax assets or deferred tax liabilities. Although the amounts shown for depreciation, amortization and income tax expense are different under *SFAS No. 109* and *SFAS No. 141R*, absent a change in expected future tax rates, the amount of consolidated net income will be the same.

## ANSWERS TO BUSINESS ETHICS CASE

Part 1

Even though the suggested changes by the CFO lie within GAAP, the proposed changes will unfairly increase the EPS of the company, misleading the common investors and other users. It is evident that the CFO is doing it for his or her personal gain rather than for the transparency of financial reporting. Thus, manipulating the reserve in this case comes under the heading of unethical behavior. Taking a stand in such a situation is a difficult and challenging test for an employee who reports to the CFO.

Part 2

The tax laws permit individuals to minimize taxes by means that are within the law like using tax deductions, changing one's tax status through incorporation, or setting up a charitable trust or foundation. In the given case the losses reported were phony and the whole scheme was fabricated to illegally benefit certain individuals; hence there appears to be a criminal intent in the scheme. Although there is no reason to pay more tax than necessary, the lack of risk in these types of shelters makes participation in such schemes of questionable ethics, at the best.

## ANSWERS TO EXERCISES

### Exercise 3-1

| | | |
|---|---|---|
| a. Common Stock – Saltez | 160,000 | |
| Other Contributed Capital - Saltez | 92,000 | |
| Retained Earnings - Saltez | 43,000 | |
| Property,Plant, and Equipment | 56,000 | |
| Investment in Saltez | | 351,000 |

| | | |
|---|---|---|
| b. Common Stock – Saltez | 190,000 | |
| Other Contributed Capital – Saltez | 75,000 | |
| Property, Plant, and Equipment | 21,778 | |
| ($232,000/0.9-[$190,000+$75,000-$29,000]) | | |
| Retained Earnings – Saltez | | 29,000 |
| Investment in Saltez | | 232,000 |
| Noncontrolling Interest | | 25,778 |

| | | |
|---|---|---|
| c. Common Stock – Saltez | 180,000 | |
| Other Contributed Capital – Saltez | 40,000 | |
| Retained Earnings – Saltez | | 4,000 |
| Investment in Saltez | | 159,000 |
| Gain on Purchase of Business – Prancer ** | | 13,800 |
| Noncontrolling Interest (.2) ($198,750) + $3,450* | | 43,200 |

** The ordinary gain to Prancer is $159,000 – (.80)($216,000) = $13,800
* Noncontrolling interest reflects the noncontrolling share of implied value (.20 x $198,750, or $39,750), plus the NCI portion of the bargain (.20 x $17,250)

NOTE: We know this is a bargain acquisition in part c because the investment cost of $159,000 implies a total value of $198,750. Since this value is less than the book value of equity of $216,000 [$180,000+$40,000-$4,000], the difference is a bargain of $17,250. This bargain is allocated between the parent (this portion is reflected as a gain) and the NCI.

### Exercise 3-2

| | | | |
|---|---|---|---|
| **Part A** | Investment in Save (40,000 × $17.50) | 700,000 | |
| | Common Stock | | 400,000 |
| | Other Contributed Capital ($700,000 – $20,000 – $400,000) | | 280,000 |
| | Cash | | 20,000 |

| | | | |
|---|---|---|---|
| **Part B** | Common Stock – Save | 320,000 | |
| | Other Contributed Capital – Save | 175,000 | |
| | Retained Earnings –Save | 205,000 | |
| | Investment in Save | | 700,000 |

## Exercise 3-3

| | | | |
|---|---|---|---|
| **Part A** | Investment in Sun Company | 192,000 | |
| | Cash | | 192,000 |

**Part B**

PRUNCE COMPANY AND SUBSIDIARY
Consolidated Balance Sheet
January 2, 2011

| | | |
|---|---|---|
| Assets | | |
| Cash ($260,000 + $64,000 – $192,000) | | $132,000 |
| Accounts Receivable | | 165,000 |
| Inventory | | 171,000 |
| Plant and Equipment (net) | | 484,000 |
| Land ($63,000 + $32,000 + $28,333*) | | 123,333 |
| Total Assets | | $1,075,333 |
| | | |
| Liabilities and Stockholders' Equity | | |
| Accounts Payable | | $151,000 |
| Mortgage Payable | | 111,000 |
| Total Liabilities | | 262,000 |
| Noncontrolling Interest ($192,000/0.9 × 0.1) | $21,333 | |
| Common Stock | 400,000 | |
| Other Contributed Capital | 208,000 | |
| Retained Earnings | 184,000 | |
| Total Stockholders' Equity | | 813,333 |
| Total Liabilities and Stockholders' Equity | | $1,075,333 |

* [$192,000/0.9 – ($70,000 + $20,000 + $95,000)] = $28,333

## Exercise 3-4

| | | | |
|---|---|---|---|
| **Part A** | Investment in Swartz Company ($60 × 1,500) | 90,000 | |
| | Common Stock ($20 × 1,500) | | 30,000 |
| | Other Contributed Capital ($40 × 1,500) | | 60,000 |
| | | | |
| | Other Contributed Capital | 1,700 | |
| | Cash | | 1,700 |

**Part B** Computation and Allocation of Difference

| | Parent Share | Non-Controlling Share | Entire Value |
|---|---|---|---|
| Purchase price and implied value | **$90,000** | **0** | 90,000 |
| Less: Book value of equity acquired | 83,000* | 0 | **83,000** |
| Difference between implied and book value | 7,000 | 0 | **7,000** |
| Goodwill | (7,000) | (0) | **(7,000)** |
| Balance | - 0 - | - 0 - | - 0 - |

* $40,000 + $24,000 + $19,000 = $83,000

**Exercise 3-4 (continued)**

**Part C**

Peach Company and Subsidiary
Consolidated Balance Sheet
January 1, 2010

| | | |
|---|---|---|
| Assets | | |
| Cash ($73,000 + $13,000 - $1,700) | | $ 84,300 |
| Accounts Receivable | | 114,000 |
| Inventory | | 83,000 |
| Plant and Equipment | | 138,000 |
| Land | | 48,000 |
| Goodwill* | | 7,000 |
| Total Assets | | $ 474,300 |
| | | |
| Liabilities and Stockholders' Equity | | |
| Accounts Payable | | $84,000 |
| Notes Payable | | 103,000 |
| Total Liabilities | | $187,000 |
| | | |
| Common Stock ($100,000 + $30,000) | $130,000 | |
| Other Contributed Capital ($60,000 + $60,000 - $1,700) | 118,300 | |
| Retained Earnings | 39,000 | |
| Total Stockholders' Equity | | 287,300 |
| Total Liabilities and Stockholders' Equity | | $ 474,300 |

* Cost of investment less fair value acquired equals goodwill or ($90,000 – $83,000 = $7,000). Recall that the book value of net assets equals the fair value of net assets in this problem.

**Exercise 3-5**

**(1)**

| | | |
|---|---|---|
| Common Stock–Spruce | 900,000 | |
| Other Contributed Capital–Spruce | 440,000 | |
| Retained Earnings–Spruce | 150,000 | |
| Land [$1,400,000/.90 – ($900,000 + $440,000 + $150,000 - $100,000)] | 165,556 | |
| Investment in Spruce Company | | 1,400,000 |
| Treasury Stock | | 100,000 |
| Noncontrolling Interest ($1,400,000/.90 × .10) | | 155,556 |

**(2)**

| | | |
|---|---|---|
| Common Stock–Spruce | 900,000 | |
| Other Contributed Capital–Spruce | 440,000 | |
| Retained Earnings–Spruce | 150,000 | |
| Land | 10,000 | |
| Investment in Spruce Company | | 1,160,000 |
| Treasury Stock | | 100,000 |
| Gain on Purchase of Business - Pool * | | 100,000 |
| Noncontrolling Interest [($1,050,000 + $990,000 + $180,000 - $820,000) x .10] | | 140,000 |

* [$1,160,000 – ($1,050,000 + $990,000 + $180,000 – $820,000) x .90] = $100,000

## Exercise 3-6

**Part A** $$\frac{\$37,412 \text{ Noncontrolling Interest}}{\$249,412 \text{ Implied Value*}} = 15\% \text{ Noncontrolling Interest}$$

* Implied Value = Parent's value $212,000 + NCI $37,412 = $249,412

| | | |
|---|---|---|
| Common Stock-Shipley | 90,000 | |
| Other Contributed Capital-Shipley | 90,000 | |
| Retained Earnings-Shipley | 56,000 | |
| Land $249,412 - $236,000 | 13,412 | |
| Investment in Shipley Company | | 212,000 |
| Noncontrolling Interest | | 37,412 |

**Part B**

SHIPLEY COMPANY
Balance Sheet
December 31, 2010

| | |
|---|---|
| Cash | $ 15,900 |
| Accounts Receivable | 22,000 |
| Inventory | 34,600 |
| Plant and Equipment | 147,000 |
| Land ($220,412 - $13,412 - $120,000) | 87,000 |
| Total Assets | $ 306,500 |
| | |
| Accounts Payable | $ 70,500 |
| Common Stock | 90,000 |
| Other Contributed Capital | 90,000 |
| Retained Earnings | 56,000 |
| Total Equities | $ 306,500 |

## Exercise 3-7

**Part A.** Long-term receivable from subsidiary $500,000
Current assets: interest receivable from subsidiary $50,000

**Part B.** None

## Exercise 3-8

| | | |
|---|---|---|
| Investment in Shy Inc. [$2,500,000 + (15,000 × $40)] | 3,100,000 | |
| Cash | | 2,500,000 |
| Common Stock | | 30,000 |
| Other Contributed Capital ($40 - $2) × 15,000 | | 570,000 |

**Exercise 3-9**

| | | |
|---|---|---|
| Investment in Shy Inc. [$2,500,000 + (15,000 × $40)] | 3,100,000 | |
| Cash | | 2,500,000 |
| Common Stock | | 30,000 |
| Other Contributed Capital ($40 - $2) × 15,000 | | 570,000 |

| | | |
|---|---|---|
| Acquisition Expense | 97,000 | |
| Deferred Acquisition Charges | | 90,000 |
| Acquisition Costs Payable | | 7,000 |

**Exercise 3-10A**

Note: This solution assumes a difference between the basis of acquired assets for accounting and tax purposes for this stock acquisition.

| | | | |
|---|---|---|---|
| **Part A** | Investment in Seely Company | 570,000 | |
| | Common Stock*** | | 95,000 |
| | Additional Paid-in-Capital | | 475,000 |

***Note: Depending on the wording of this exercise, the credit may be cash instead of common stock and additional paid-in-capital. If cash is paid, the credit to cash is $570,000.

| | | | |
|---|---|---|---|
| **Part B** | Common Stock - Seely | 80,000 | |
| | Other Contributed Capital – Seely | 132,000 | |
| | Retained Earnings - Seely | 160,000 | |
| | Difference between Implied and Book Value* | 228,000 | |
| | Investment in Seely Company | | 570,000 |
| | Noncontrolling Interest [($570,000/.95) x .05] | | 30,000 |

* [$570,000/.95 – ($80,000 + $132,000 + $160,000)]

| | | |
|---|---|---|
| Inventory | 52,000 | |
| Land | 25,000 | |
| Plant Assets | 71,000 | |
| Discount on Bonds Payable | 20,000 | |
| Goodwill** | 127,200 | |
| Deferred Income Tax Liability* | | 67,200 |
| Difference between Cost and Book Value | | 228,000 |

*(.40 × ($52,000 + $25,000 + $71,000 + $20,000))

**228,000 – [($52,000 + $25,000 + $71,000 + $20,000) x 60%]

## Exercise 3-11A

| | | |
|---|---|---|
| Investment in Starless Company | 700,000 | |
| Common Stock | | 50,000 |
| Other Contributed Capital (($70 – $5) × 10,000) | | 650,000 |

Because the combination is consummated as a stock acquisition, the entry on the books of the acquirer is no different than in the absence of deferred taxes. However, in the elimination entries, a deferred tax liability will be recognized and the amount of goodwill will be altered accordingly.

## ANSWERS TO PROBLEMS

### Problem 3-1

P COMPANY AND SUBSIDIARY
Consolidated Balance Sheet Workpaper
November 30, 2011

|  | P | S | Eliminations |  | Noncontrolling | Consolidated |
|---|---|---|---|---|---|---|
| **Part I** | Company | Company | Dr. | Cr. | Interest | Balance |
| Current Assets | 880,000 | 260,000 |  |  |  | 1,140,000 |
| Investment in S Company | 190,000 |  |  | (1) 190,000 |  |  |
| Difference between Implied and Book Value |  |  | (1) 71,111 | (2) 71,111 |  |  |
| Long-term Assets | 1,400,000 | 400,000 | (2) 71,111 |  |  | 1,871,111 |
| Other Assets | 90,000 | 40,000 |  |  |  | 130,000 |
| Total Assets | 2,560,000 | 700,000 |  |  |  | 3,141,111 |
|  |  |  |  |  |  |  |
| Current Liabilities | 640,000 | 270,000 |  |  |  | 910,000 |
| Long-term Liabilities | 850,000 | 290,000 |  |  |  | 1,140,000 |
| Common Stock: |  |  |  |  |  |  |
| P Company | 600,000 |  |  |  |  | 600,000 |
| S Company |  | 180,000 | (1) 180,000 |  |  |  |
| Retained Earnings |  |  |  |  |  |  |
| P Company | 470,000 |  |  |  |  | 470,000 |
| S Company |  | (40,000) |  | (1) 40,000 |  |  |
| Noncontrolling Interest |  |  |  | (2) 21,111 | 21,111 | 21,111 |
| Total Liabilities and Equity | 2,560,000 | 700,000 | 322,222 | 322,222 |  | 3,141,111 |

|  | P | S | Eliminations |  | Noncontrolling | Consolidated |
|---|---|---|---|---|---|---|
| **Part II** | Company | Company | Dr. | Cr. | Interest | Balance |
| Current Assets | 780,000 | 280,000 |  |  |  | 1,060,000 |
| Investment in S Company | 190,000 |  |  | (1) 190,000 |  |  |
| Difference between Implied & Book Value |  |  | (2) 8,889 | (1) 8,889 |  |  |
| Long-term Assets | 1,200,000 | 400,000 |  | (2) 8,889 |  | 1,591,111 |
| Other Assets | 70,000 | 70,000 |  |  |  | 140,000 |
| Total Assets | 2,240,000 | 750,000 |  |  |  | 2,791,111 |
|  |  |  |  |  |  |  |
| Current Liabilities | 700,000 | 260,000 |  |  |  | 960,000 |
| Long-term Liabilities | 920,000 | 270,000 |  |  |  | 1,190,000 |
| Common Stock: |  |  |  |  |  |  |
| P Company | 600,000 |  |  |  |  | 600,000 |
| S Company |  | 180,000 | (1) 180,000 |  |  |  |
| Retained Earnings |  |  |  |  |  |  |
| P Company | 20,000 |  |  |  |  | 20,000 |
| S Company |  | 40,000 | (1) 40,000 |  |  |  |
| Noncontrolling Interest |  |  |  | (1) 21,111 | 21,111 | 21,111 |
| Total Liabilities and Equity | 2,240,000 | 750,000 | 228,889 | 228,889 |  | 2,791,111 |

(1) To eliminate investment account and create noncontrolling interest account
(2) To allocate the difference between implied value and book value to long-term assets.

## Problem 3-1 (continued)

Computation and Allocation of Difference (Case 2)

| | Parent Share | Non-Controlling Share | Entire Value |
|---|---|---|---|
| Purchase price and implied value | **190,000** | **21,111** | 211,111* |
| Less: Book value of equity acquired | 198,000 | 22,000 | **220,000** |
| Difference between implied and book value | (8,000) | (889) | **(8,889)** |
| Decrease long-term assets to fair value | 8,000 | 889 | **8,889** |
| Balance | - 0 - | - 0 - | - 0 – |

* $190,000/.90

## Problem 3-2

**Part A** $100,000 Soho Total Par/$10 Par per share = 10,000 shares of Soho issued
8,000 shares acquired/10,000 total shares = 80%
Implied Value of Soho (100%) = $120,000/80% = $150,000.
Implied Value of Noncontrolling share = $150,000 x 20% = $30,000.

Computation and Allocation of Difference Schedule

| | Parent Share | Non-Controlling Share | Entire Value |
|---|---|---|---|
| Purchase price and implied value | **120,000** | **30,000** | 150,000* |
| Less: Book value of equity acquired: | | | |
| Common stock | 80,000 | 20,000 | **100,000** |
| Other contributed capital | 13,200 | 3,300 | **16,500** |
| Retained earnings | 18,800 | 4,700 | **23,500** |
| Total book value | 112,000 | 28,000 | 140,000 |
| Difference between implied and book value | 8,000 | 2,000 | **10,000** |
| Plant Assets | (8,000) | (2,000) | **(10,000)** |
| Balance | - 0 - | - 0 - | - 0 - |

*$120,000/.80

**Problem 3-2 (continued)** PERRY COMPANY AND SUBSIDIARY SOHO

**Part B** Consolidated Balance Sheet Workpaper

January 1, 2011

| | Perry Company | Soho Company | Eliminations | | Noncontrolling Interest | Consolidated Balance |
|---|---|---|---|---|---|---|
| | | | Debit | Credit | | |
| Cash | 39,000 | 19,000 | | | | 58,000 |
| Accounts Receivable | 53,000 | 31,000 | | | | 84,000 |
| Inventory | 42,000 | 25,000 | | | | 67,000 |
| Investment in Soho | 120,000 | | | (1) 120,000 | | |
| Difference between Implied and Book Value | | | (1) 10,000 | (2) 10,000 | | |
| Plant Assets | 160,000 | 110,500 | (2) 10,000 | | | 280,500 |
| Accumulated Depreciation | (52,000) | (19,500) | | | | (71,500) |
| Total | 362,000 | 166,000 | | | | 418,000 |
| | | | | | | |
| Current Liabilities | 18,500 | 26,000 | | | | 44,500 |
| Mortgage Note Payable | 40,000 | | | | | 40,000 |
| Common Stock: | | | | | | |
| Perry Company | 120,000 | | | | | 120,000 |
| Soho Company | | 100,000 | (1) 100,000 | | | |
| Other Contributed Capital | | | | | | |
| Perry Company | 135,000 | | | | | 135,000 |
| Soho Company | | 16,500 | (1) 16,500 | | | |
| Retained Earnings: | | | | | | |
| Perry Company | 48,500 | | | | | 48,500 |
| Soho Company | | 23,500 | (1) 23,500 | | | |
| Noncontrolling Interest | | | | (1) 30,000 | 30,000 | 30,000 |
| Total | 362,000 | 166,000 | 160,000 | 160,000 | | 418,000 |

(1) To eliminate investment account and create noncontrolling interest account.
(2) To allocate the difference between implied and book value to plant assets.

**Problem 3-3**

P COMPANY AND SUBSIDIARY
Consolidated Balance Sheet Workpaper
August 1, 2011

| | P | S | Eliminations | | Noncontrolling | Consolidated |
|---|---|---|---|---|---|---|
| | Company | Company | Dr. | Cr. | Interest | Balance |
| Cash | 165,500 | 106,000 | (b) 35,000 | | | 306,500 |
| Receivables | 366,000 | 126,000 | (a) 800 | (3) 800 | | 457,000 |
| | | | | (4) 35,000 | | |
| Inventory | 261,000 | 108,000 | | | | 369,000 |
| Investment in Bonds | 306,000 | | | (2) 40,000 | | 266,000 |
| Investment in S Company Stock | 586,500 | | | (1) 586,500 | | |
| Difference between Implied and Book Value | | | (5) 24,333 | (1) 24,333 | | |
| Plant and Equipment (net) | 573,000 | 320,000 | | (5) 24,333 | | 868,667 |
| Land | 200,000 | 300,000 | | | | 500,000 |
| Total Assets | 2,458,000 | 960,000 | | | | 2,767,167 |
| | | | | | | |
| Accounts Payable | 174,000 | 58,000 | | | | 232,000 |
| Accrued Expenses | 32,400 | 26,000 | (3) 800 | | | 57,600 |
| Bonds Payable, 8% | | 200,000 | (2) 40,000 | | | 160,000 |
| Common Stock: | | | | | | |
| P Company | 1,500,000 | | | | | 1,500,000 |
| S Company | | 460,000 | (1) 460,000 | | | |
| Other Contributed Capital: | | | | | | |
| P Company | 260,000 | | | | | 260,000 |
| S Company | | 60,000 | (1) 60,000 | | | |
| Retained Earnings | | | | | | |
| P Company | 491,600 | | | (a) 800 | | 492,400 |
| S Company | | 156,000 | (1) 156,000 | | | |
| Noncontrolling Interest | | | | (1) 65,167 | 65,167 | 65,167 |
| Total | 2,458,000 | 960,000 | | | | |
| Advances from P Company | | | (4) 35,000 | (b) 35,000 | | |
| Total Liabilities and Equity | | | 811,933 | 811,933 | | 2,767,167 |

(a) To establish reciprocity for interest receivable and payable and to recognize interest earned
(b) To establish reciprocity for intercompany advances
(1) To eliminate Investment in S Company and create noncontrolling interest account
(2) To eliminate intercompany bondholdings
(3) To eliminate intercompany interest receivable and payable
(4) To eliminate intercompany advances
(5) To allocate the difference between implied value and book value to plant and equipment

**Problem 3-3 (continued)**

Computation and Allocation of Difference

| | Parent Share | Non-Controlling Share | Entire Value |
|---|---|---|---|
| Purchase price and implied value | **586,500** | **65,167** | 651,667* |
| Less: Book value of equity acquired ($676,000 x .9) | 608,400 | 67,600 | **676,000** |
| Difference between implied and book value | (21,900) | (2,433) | **(24,333)** |
| Decrease PPE to fair value | 21,900 | 2,433 | **24,333** |
| Balance | - 0 - | - 0 - | - 0 - |

* $586,500/.90

**Problem 3-4**

## PHILLIPS COMPANY AND SUBSIDIARIES
Consolidated Balance Sheet Workpaper
January 2, 2011

| | Phillips Company | Sanchez Company | Thomas Company | Eliminations Dr. | Eliminations Cr. | Noncontrolling Interest | Consolidated Balance |
|---|---|---|---|---|---|---|---|
| Cash | 7,000 | 43,700 | 20,000 | | | | 70,700 |
| Account Receivable | 28,000 | 24,000 | 20,000 | | | | 72,000 |
| Note Receivable | | 10,000 | | | (1) 10,000 | | |
| Interest Receivable | | 300 | | | (2) 300 | | |
| Inventory | 120,000 | 96,000 | 43,000 | | | | 259,000 |
| Investment in Sanchez Company | 225,000 | | | | (3) 225,000 | | |
| Investment in Thomas Company | 168,000 | | | | (4) 168,000 | | |
| Equipment | 60,000 | 40,000 | 30,000 | | | | 130,000 |
| Land | 180,000 | 80,000 | 70,000 | (3) 7,250**<br>(4) 31,967*** | | | 369,217 |
| Total Assets | 788,000 | 294,000 | 183,000 | | | | 900,917 |
| Accounts Payable | 28,000 | 20,000 | 18,000 | | | | 66,000 |
| Note Payable | | | 10,000 | (1) 10,000 | | | |
| Accrued Interest Payable | | | | (2) 300 | (a) 300 | | |
| Common Stock: | | | | | | | |
| Phillips Company | 300,000 | | | | | | 300,000 |
| Sanchez Company | | 120,000 | | (3) 120,000 | | | |
| Thomas Company | | | 75,000 | (4) 75,000 | | | |
| Other Contributed Capital: | | | | | | | |
| Phillips Company | 300,000 | | | | | | 300,000 |
| Sanchez Company | | 90,000 | | (3) 90,000 | | | |
| Thomas Company | | | 40,000 | (4) 40,000 | | | |
| Retained Earnings | | | | | | | |
| Phillips Company | 160,000 | | | | | | 160,000 |
| Sanchez Company | | 64,000 | | (3) 64,000 | | | |
| Thomas Company | | | 40,000 | (a) 300<br>(4) 39,700* | | | |
| Noncontrolling Interest | | | | | (3)(4)74,917**** | 74,917 | 74,917 |
| Total Liabilities and Equity | 788,000 | 294,000 | 183,000 | 478,517 | 478,517 | | 900,917 |

* ($40,000 – $300); ** [$225,000/.80 – ($120,000 + $90,000 + $64,000)]; *** [$168,000/.90 – ($75,000 + $40,000 + $40,000 – $300)];
**** ($225,000/.80 x .20) + ($168,000/.90 x .10)

(a) To establish reciprocity for interest receivable and payable and to recognize interest earned
(1) To eliminate intercompany note receivable and payable
(2) To eliminate intercompany interest receivable and payable
(3) To eliminate the investment in Sanchez Company and create noncontrolling interest account of $56,250
(4) To eliminate the investment in Thomas Company and create noncontrolling interest account $18,667

## Problem 3-5

| | | |
|---|---|---:|
| **Part A** | Pat Company Cash balance, 12/31/2010 | $540,000 |
| | Less: Cash used in the acquisition of Solo | 236,000 |
| | Pat Company Cash balance after acquisition | $304,000 |
| | | |
| | Consolidated Cash balance, 1/1/2011 | $352,000 |
| | Less: Pat Company Cash balance after acquisition | 304,000 |
| | Difference | 48,000 |
| | Less: Cash transfer unrecorded by Solo | 10,000 |
| | Solo's cash balance, 1/1/2011 | $38,000 |

**Part B** The noncontrolling interest of $28,500 on the consolidated balance sheet is equal to 10% of the total stockholders' equity of Solo Company. Thus, total stockholders' equity of Solo Company is

$$\$285,000 = \left(\frac{\$28,500}{0.10}\right)$$

| | | |
|---|---|---:|
| **Part C** | Total stockholders' equity of solo from (B) above | $285,000 |
| | Add: Accounts payable of Solo Company $386,000 – $280,000 = $106,000 + $4,000 of intercompany payables eliminated in consolidation | 110,000 |
| | Add: Long-term liabilities of Solo Company, $605,500 - $520,000 | 85,500 |
| | Total assets of Solo Company 1/1/2011 | $480,500 |

**Problem 3-6**

PING COMPANY AND SUBSIDIARY
Consolidated Balance Sheet Workpaper
July 31, 2011

| | Ping Company | Santos Company | Eliminations Dr. | Eliminations Cr. | Noncontrolling Interest | Consolidated Balance |
|---|---|---|---|---|---|---|
| Cash | 320,000 | 150,000 | (a) 60,000 | | | 530,000 |
| Accounts Receivable | 600,000 | 300,000 | | (2) 20,000 | | 880,000 |
| Note Receivable | 100,000 | | | (5) 100,000 | | |
| Inventory | 1,840,000 | 400,000 | | | | 2,240,000 |
| Advance to Santos Company | 60,000 | | | (1) 60,000 | | |
| Investment in Santos Company | 2,010,000 | | | (3)2,010,000 | | |
| Difference between Implied & Book Value | | | (3) 40,333 * | (6) 40,333 | | |
| Plant and Equipment | 3,000,000 | 1,500,000 | | | | 4,500,000 |
| Land | 90,000 | 90,000 | (6) 40,333 | | | 220,333 |
| Total Assets | 8,020,000 | 2,440,000 | | | | 8,370,333 |
| Accounts Payable | 800,000 | 140,000 | (2) 20,000 | | | 920,000 |
| Notes Payable | 900,000 | 100,000 | (5) 100,000 | | | 900,000 |
| Common Stock: | | | | | | |
| Ping Company | 2,400,000 | | | | | 2,400,000 |
| Santos Company | | 900,000 | (3) 900,000 | | | |
| Other Contributed Capital: | | | | | | |
| Ping Company | 2,200,000 | | | | | 2,200,000 |
| Santos Company | | 680,000 | (3) 680,000 | | | |
| Retained Earnings | | | | | | |
| Ping Company | 1,720,000 | | | (c) 7,000 | | 1,727,000 |
| | | | (b) 7,000 | | | |
| Santos Company | | 620,000 | (3) 613,000 | | | |
| Noncontrolling Interest | | | | (3) 223,333 | 223,333** | 223,333 |
| Total | 8,020,000 | 2,440,000 | | | | |
| Advance from Ping Company | | | (1) 60,000 | (a) 60,000 | | |
| Interest Payable | | | (4) 7,000 | (b) 7,000 | | |
| Interest Receivable | | | (c) 7,000 | (4) 7,000 | | |
| Total Liabilities and Equity | | | 2,534,666 | 2,534,666 | | 8,370,333 |

**Problem 3-6 (continued)**

* [$2,010,000/.90 – ($900,000 + $680,000 + $620,000 - $7,000)] = $40,333; ** $2,010,000/.90 x .10 = 223,333
(a) To establish reciprocity for cash advances
(b) To adjust for unrecorded interest expense and interest payable
(c) To adjust for unrecorded interest income and interest receivable.
(1) To eliminate intercompany advances
(2) To eliminate intercompany accounts receivable and accounts payable
(3) To eliminate investment in Santos Company and create noncontrolling interest account
(4) To eliminate intercompany interest receivable and interest payable
(5) To eliminate intercompany note receivable and note payable
(6) To allocate the difference between implied and book value to land

**Problem 3-7**

PREGO COMPANY AND SUBSIDIARY
Consolidated Balance Sheet
January 1, 2011

| | (Part A) | (Part B) |
|---|---|---|
| Cash ($700,000 – $594,000 + $ 111,000) | $ 217,000 | $ 811,000 |
| Accounts Receivable (net) | 1,122,000 | 1,122,000 |
| Inventory | 604,000 | 604,000 |
| Property and Equipment (net) | 2,395,000 | 2,395,000 |
| Land | 214,000 | 214,000 |
| Total Assets | $4,552,000 | $5,146,000 |
| Accounts Payable | $ 454,000 | $ 454,000 |
| Notes Payable | 649,000 | 649,000 |
| Long-term Debt | 440,000 | 440,000 |
| Noncontrolling Interest ($500,000 + $80,000 + $80,000) × 0.10) | 66,000 | 66,000 |
| Common Stock | 1,800,000 | 2,037,600 |
| Other Contributed Capital (part B, $543,000 + [($50 – $20) × 11,880] | 543,000 | 899,400 |
| Retained Earnings | 600,000 | 600,000 |
| Total Equities | $4,552,000 | $5,146,000 |

**Problem 3-8**

| | | | |
|---|---|---|---|
| **Part A** | Investment in Sara Co. (13,400 × $12) | 160,800 | |
| | Common Stock (13,400 × $10) | | 134,000 |
| | Other Contributed Capital ($26,800 – $4,000) | | 22,800 |
| | Cash | | 4,000 |
| | Investment in Rob Co. | 50,000 | |
| | Cash | | 50,000 |

**Problem 3-8 (continued)** Punto Company & Subsidiaries Consolidated Balance Sheet Workpaper at February 1, 2011

| **Part B** | Punto Company | Sara Company | Rob Company | Eliminations Dr. | Eliminations Cr. | Noncontrolling Interest | Consolidated Balance |
|---|---|---|---|---|---|---|---|
| Cash | 111,000 | 45,000 | 17,000 | (a) 5,000 | | | 178,000 |
| Account Receivable | 35,000 | 35,000 | 26,000 | | (2) 21,000 | | 75,000 |
| Notes Receivable | 18,000 | | | | (3) 12,500 | | 5,500 |
| Merchandise Inventory | 106,000 | 35,500 | 14,000 | | | | 155,500 |
| Prepaid Insurance | 13,500 | 2,500 | 500 | | | | 16,500 |
| Investment in Sara Company | 160,800 | | | | (4) 160,800 | | |
| Investment in Rob Company | 50,000 | | | | (5) 50,000 | | |
| Difference between Implied and | | | | (4) 7,263 ** | (5) 11,176 | | |
| Book Value | | | | (7) 11,176 | (6) 7,263 | | |
| Advances to Sara Company | 10,000 | | | | (1) 10,000 | | |
| Advances to Rob Company | 5,000 | | | | (1) 5,000 | | |
| Land | 248,000 | 43,000 | 15,000 | (6) 7,263 | | | 313,263 |
| Buildings (net) | 100,000 | 27,000 | 16,000 | | (7) 11,176 | | 131,824 |
| Equipment (net) | 35,000 | 10,000 | 2,500 | | | | 47,500 |
| Total Assets | 892,300 | 198,000 | 91,000 | | | | 923,087 |
| Accounts Payable | 25,500 | 20,000 | 10,500 | (1) 15,000 | | | |
| | | | | (2) 21,000 | (a) 5,000 | | 25,000 |
| Income Taxes Payable | 30,000 | 10,000 | | | | | 40,000 |
| Notes Payable | | 6,000 | 10,500 | (3) 12,500 | | | 4,000 |
| Bonds Payable | 100,000 | | | | | | 100,000 |
| Common Stock: | | | | | | | |
| Punto Company | 434,000 | | | | | | 434,000 |
| Sara Company | | 144,000 | | (4) 144,000 | | | |
| Rob Company | | | 42,000 | (5) 42,000 | | | |
| Other Contributed Capital: | | | | | | | |
| Punto Company | 172,800 | | | | | | 172,800 |
| Sara Company | | 12,000 | | (4) 12,000 | | | |
| Rob Company | | | 38,000 | (5) 38,000 | | | |
| Retained Earnings | | | | | | | |
| Punto Company | 130,000 | | | | | | 130,000 |
| Sara Company | | 6,000 | | (4) 6,000 | | | |
| Rob Company | | | (10,000) | | (5) 10,000 | | |
| Noncontrolling Interest | | | | | (4)(5)17,287 * | 17,287 | 17,287 |
| Total Liabilities and Equity | 892,300 | 198,000 | 91,000 | 321,202 | 321,202 | | 923,087 |

**Problem 3-8 (continued)**

(a) To adjust for cash in transit from Punto to Rob
(1) To eliminate intercompany advances
(2) To eliminate intercompany accounts receivable and accounts payable
(3) To eliminate intercompany notes receivable and notes payable
(4) To eliminate investment in Sara Company and create noncontrolling interest account of $8,463
(5) To eliminate investment in Rob Company and create noncontrolling interest account of $8,824
(6) To allocate the difference between implied and book value to the under-valuation of Sara's land
(7) To allocate the difference between implied and book value to the over-valuation of Rob's buildings

* [$160,800/.95 x .05] = $8,463

$8,463 (entry 4) + $8,824 (entry 5) = $17,287
** $160,800/.95 – ($144,000 + $12,000 + $6,000)

Computation and Allocation of Difference

| | Parent Share | Non-Controlling Share | Entire Value |
|---|---|---|---|
| Purchase price and implied value | **50,000** | **8,824** | 58,824* |
| Less: Book value of equity acquired | 59,500 | 10,500 | **70,000** |
| Difference between implied and book value | (9,500) | (1,676) | **(11,176)** |
| Decrease buildings to fair value | 9,500 | 1,676 | **11,176** |
| Balance | - 0 - | - 0 - | - 0 - |

* $50,000/.85

**Part C** PUNTO COMPANY AND SUBSIDIARIES
Consolidated Balance Sheet
February 1, 2011

| | | |
|---|---|---|
| Assets | | |
| Current Assets: | | |
| Cash | $178,000 | |
| Accounts Receivable | 75,000 | |
| Notes Receivable | 5,500 | |
| Merchandise Inventory | 155,500 | |
| Prepaid Insurance | 16,500 | |
| Total Current Assets | | $ 430,500 |
| Long-Term Assets: | | |
| Land | | 313,263 |
| Buildings(net) | | 131,824 |
| Equipment(net) | | 47,500 |
| Total Assets | | $ 923,087 |

## Problem 3-8 (continued)

Liabilities and Stockholders' Equity

| | | |
|---|---|---|
| Current Liabilities: | | |
| Accounts Payable | $25,000 | |
| Income Tax Payable | 40,000 | |
| Notes Payable | 4,000 | |
| Total Current Liabilities | | $ 69,000 |
| Bonds Payable | | 100,000 |
| Total Liabilities | | 169,000 |
| Stockholders' Equity: | | |
| Noncontrolling Interest in Subsidiaries | 17,287 | |
| Common Stock | 434,000 | |
| Other Contributed Capital | 172,800 | |
| Retained Earnings | 130,000 | |
| Total Stockholders' Equity | | 754,087 |
| Total Liabilities and Stockholders' Equity | | $ 923,087 |

## Problem 3-9

### Part A

Computation and Allocation of Difference Schedule

| | Parent Share | Non-Controlling Share | Total Value |
|---|---|---|---|
| Purchase price and implied value | **$5,800,000** | **644,444** | 6,444,444* |
| Less: Book value of equity acquired: | | | |
| Common stock (5,250,000 x .90) | 4,725,000 | 525,000 | **5,250,000** |
| Other contributed capital | 356,400 | 39,600 | **396,000** |
| Retained earnings | 1,732,500 | 192,500 | **1,925,000** |
| Less: Treasury stock | (1,080,000) | (120,000) | **(1,200,000)** |
| Total book value | 5,733,900 | 637,100 | 6,371,000 |
| Difference between implied and book value | 66,100 | 7,344 | **73,444** |
| Plant assets | (66,100) | (7,344) | **(73,444)** |
| Balance | - 0 - | - 0 - | - 0 - |

*$5,800,000/.90

**Problem 3-9 (continued)** Pope Company and Subsidiary Worksheet, January 1, 2009

| **Part B** | Pope | Sun | Eliminations | | Noncontrolling | Consolidated |
|---|---|---|---|---|---|---|
| | Company | Company | Debit | Credit | Interest | Balances |
| Cash | 297,000 | 165,000 | | | | 462,000 |
| Accounts Receivable | 432,000 | 468,000 | | | | 900,000 |
| Notes Receivable | 90,000 | | | (1) 90,000 | | |
| Inventory | 1,980,000 | 1,447,000 | | | | 3,427,000 |
| Investment in Sun Company | 5,800,000 | | | (2) 5,800,000 | | |
| Difference between Implied | | | | | | |
| & Book Value | | | (2) 73,444 | (3) 73,444 | | |
| Plant and Equipment (net) | 5,730,000 | 3,740,000 | (3) 73,444 | | | 9,543,444 |
| Land | 1,575,000 | 908,000 | | | | 2,483,000 |
| Total | $15,904,000 | $6,728,000 | | | | $16,815,444 |
| | | | | | | |
| Accounts Payable | 698,000 | 247,000 | | | | 945,000 |
| Notes Payable | 2,250,000 | 110,000 | (1) 90,000 | | | 2,270,000 |
| Common Stock ($15 par): | | | | | | |
| Pope Company | 4,500,000 | | | | | 4,500,000 |
| Sun Company | | 5,250,000 | (2)5,250,000 | | | |
| Other Contributed Capital | | | | | | |
| Pope Company | 5,198,000 | | | | | 5,198,000 |
| Sun Company | | 396,000 | (2) 396,000 | | | |
| Treasury Stock Held: | | | | | | |
| Sun Company | | (1,200,000) | | (2)1,200,000 | | |
| Retained Earnings | | | | | | |
| Pope Company | 3,258,000 | | | | | 3,258,000 |
| Sun Company | | 1,925,000 | (2)1,925,000 | | | |
| Noncontrolling Interest | | | | (2) 644,444 | 644,444 | 644,444 |
| Total | $15,904,000 | $6,728,000 | 7,807,888 | 7,807,888 | | $16,815,444 |

(1) To eliminate intercompany note receivable and note payable
(2) To eliminate Investment in Sun Company and create noncontrolling interest account
(3) To allocate the difference between implied and book value to subsidiary plant and equipment.

**Problem 3-10A**

| | | | |
|---|---|---|---|
| **Part A** | Investment in Shah Company ($28 × 25,500) | 714,000 | |
| | Common Stock ($2 × 25,500) | | 51,000 |
| | Other Contributed Capital ($26 × 25,500) | | 663,000 |

| | | | |
|---|---|---|---|
| **Part B** | Common Stock - S | 120,000 | |
| | Other Contributed Capital - S | 164,000 | |
| | 1/1 Retained Earnings - S | 267,000 | |
| | Difference between Implied and Book Value | 289,000* | |
| | Investment in Shah Company | | 714,000 |
| | Noncontrolling Interest [($714,000/.85) x .15] | | 126,000 |

* ($714,000/.85) – ($120,000 + $164,000 + $267,000)

| | | |
|---|---|---|
| Inventory | 28,000 | |
| Land | 33,500 | |
| Plant Assets | 100,000 | |
| Patents | 105,000 | |
| Deferred Tax Asset | 21,000 | |
| Goodwill | 154,775* | |
| Premium on Bonds Payable | | 60,000 |
| Deferred Tax Liability ($266,500 x .35) | | 93,275 |
| Difference between Implied and Book Value | | 289,000 |

* ($289,000 +60,000-21,000)– [($28,000 + $33,500 + $100,000 + $105,000) × (1–.35)]

# CHAPTER 4

**Note: The letter A or B indicated for a question, exercise, or problem means that the question, exercise, or problem relates to a chapter appendix.**

## ANSWERS TO QUESTIONS

1 Nonconsolidated subsidiaries are expected to be relatively rare. In those situations where a subsidiary is not consolidated, the investment in the subsidiary should be reported in the consolidated statement of financial position at cost, along with other long-term investments.

2. A liquidating dividend is a return of investment rather than a return on investment. Consequently, the amount of a liquidating dividend should be credited to the investment account rather than to dividend income when the cost method is used, whereas regular dividends are recorded as dividend income under the cost method. If the equity method is used, all dividends are credited to the investment account.

3. When the parent company uses the cost method, the workpaper elimination of intercompany dividends is made by a debit to Dividend Income and a credit to Dividends Declared. This elimination prevents the double counting of income since the subsidiary's individual revenue and expense items are combined with the parent company's in the determination of consolidated net income. When the parent company uses the equity method, the workpaper elimination for intercompany dividends is made by a debit to the investment account and a credit to Dividends Declared.

4. When the parent company uses the cost method, dividends received are recorded as dividend income. When the parent company uses the partial equity method, the parent company recognizes equity income on its books equal to its ownership percentage times the investee company's reported net income. When the parent company uses the complete equity method, the parent recognizes income similar to the partial equity method, but adjusts the equity income for additional charges or credits when the purchase price differs from the fair value of the investee company's net assets, and for intercompany profits (addressed in chapters 6 and 7).

5. Consolidated net income consists of the parent company's net income from independent operations plus (minus) any income (loss) earned (incurred) by its subsidiaries during the period, adjusted for any intercompany transactions during the period and for any excess depreciation or amortization implied by a purchase price in excess of book values.

Consolidated retained earnings consist of the parent company's retained earnings from its independent operations plus (minus) the parent company's share of the increase (decrease) in its subsidiaries' retained earnings from the date of acquisition.

6.

| | | |
|---|---|---|
| Investment in S Company | 356,144 | |
| 1/1 Retained Earnings, P Company | | |
| 80% × ($461,430 - $16,250)] | | 356,144 |

This adjustment recognizes that P Company's share of S Company's undistributed profits from the date of acquisition to the beginning of the current year is properly a part of beginning-of-year consolidated retained earnings. It also enhances the elimination of the investment account. This entry is only needed if the parent company uses the cost method. If the equity method is used, the parent's retained earnings already reflect the undistributed earnings of the subsidiary.

7. The noncontrolling interest column accumulates the noncontrolling stockholders' share of subsidiary income, less their share of excess depreciation or amortization implied by fair value adjustments (addressed in detail in chapter 5), dividends (as a reduction), and the beginning noncontrolling interest in equity carried forward from the previous period.

8. The method used to record the investment on the books of the parent company (cost method, partial equity method, or complete equity method) has no effect on the consolidated financial statements. Only the workpaper elimination procedures are affected.

9. The two methods for treating the preacquisition revenue and expense items of a subsidiary purchased during a fiscal year are (1) including the revenue and expense items of the subsidiary for the entire period with a deduction at the bottom of the consolidated income statement for the net income earned prior to acquisition (this is the preferred method), and (2) including in the consolidated income statement only the subsidiary's revenue earned and expenses incurred subsequent to the date of purchase.

10. (a) Readers of consolidated financial statements will be unable to evaluate the financial position and results of operations (neither of which is shown separately from the parent's) of the subsidiaries.

(b) Because consolidated assets are not generally available to meet the claims of the creditors of a subsidiary, creditors will have to look to the financial statements of the debtor (subsidiary) corporation. Similarly, the creditors of the parent company are most interested in only the assets of the parent company, although large creditors are likely to gain control over or have indirect access to the assets of subsidiaries in the case of parent company default.

(c) Because consolidated financial statements are a composite, it is impossible to distinguish a financially weak subsidiary from financially strong ones.

(d) Ratio analyses based on consolidated data are not reliable guides, especially when the related group produces a conglomerate of unrelated product lines and services.

(e) Consolidated financial statements often do not disclose data about subsidiaries that are not consolidated.

(f) A reader of consolidated financial statements cannot assume that a certain amount of unrestricted consolidated retained earnings will be available for dividends. Data on the ability of the individual subsidiaries to pay dividends are frequently unavailable.

11. A consolidated statement of cash flows contains two adjustments that result from the existence of a noncontrolling interest: (1) an adjustment for the noncontrolling interest in net income or loss of the subsidiary in the determination of net cash flow from operating activities, and (2) subsidiary dividend payments to the noncontrolling stockholders must be included with parent company dividends paid in determining cash paid as dividends because the entire amount of the

noncontrolling interest in net income (loss) is added back (deducted) in determining net cash flows from operating activities.

12. Potential voting rights refer to the rights associated with potentially dilutive securities such as convertible bonds or stocks, or stock options, rights, or warrants that are currently exercisable. These are considered under international standards in determining the applicability of the equity method for investments where the investor may be considered to have significant influence. They are generally not considered under U.S. GAAP. International standards (IFRS) refer to investments that are accounted for under the equity method as "investments in associates."

13B. No. The recognition and display of a deferred tax asset or deferred tax liability relating to the assignment of the difference between implied value and book value is necessary without regard to whether the affiliates file consolidated income tax returns or separate income tax returns.

14B An assumption must be made as to whether the undistributed income will be realized in a future dividend distribution or as a result of the sale of the subsidiary. This is necessary because the calculation of the tax consequences differs depending on the assumption made. Dividend distributions are subject to a dividends received exclusion, whereas gains or losses on disposal are not. In addition, gains or losses on disposal may be taxed at different tax rates than dividend distributions. Although capital gains are currently taxed at the same rates as ordinary income, the rates have been different in the past and may be again in the future.

15B The amounts calculated under these two approaches would be different (1) if the affiliates had different marginal tax rates, (2) if the affiliates were in different tax jurisdictions, or (3) when expected future tax rates differ from the tax rate used in determining the tax paid or accrued by the selling affiliate.

16B When the affiliates file separate returns, two types of temporary differences may arise:

1. Deferred income tax consequences that arise in the consolidated financial statements because of undistributed subsidiary income, and
2. Deferred income tax consequences that arise in the consolidated financial statements because of the elimination of unrealized intercompany profit.

## ANSWERS TO BUSINESS ETHICS CASE

Surreptitiously installing spyware on computers can be an unethical practice (the word *surreptitious* implies that the customer is unaware of the activity). The programs run in the background and can significantly slow down the computer's operating performance. Sometimes these programs are used to pass on the consumer browsing history and may leak personal information to the advertising firm.

## ANSWERS TO FINANCIAL STATEMENT ANALYSIS EXERCISE

A. GE uses the equity method to account for the investment in GECS. The investment account on GE's books has a balance of $50,815 and $54,292 for the years 2005 and 2004 respectively. Notice that the balance in the investment account equals the same ending balance for stockholders' equity for GECS for the same years. Thus the investment account changes exactly by the same amount that the equity accounts change. Because GE owns 100% of GECS (and created this subsidiary), the equity method is the only method that would keep these two amounts equal. In essence, the parent's investment account mirrors the activity in the subsidiary's equity.

B. The 2005 consolidated balances for assets and liabilities are $673,342 and $555,934, which differ from the balances for GE's assets and liabilities of $189,759 and $74,599. On the other hand, the 2005 consolidated balance for equity equals the equity balance for GE's equity at $109,354. On GE's books, the assets and liabilities of GECS are recorded at net in the investment account (i.e. the investment account represents the net assets of GECS). When the firm prepares consolidated financial statements, the investment account is eliminated and the individual assets and liabilities of GECS are added. While some consolidated amounts are simply the sum of GE's and GECS's individual accounts (such as inventories), other accounts do not simple add across (such as short-term borrowings, receivables, and payables). One reason these accounts may not add across is due to the elimination of intercompany transactions. The equity accounts of GECS disappear altogether in the consolidated totals.

C. None of this minority interest is related to GE's investment in GECS since GE owns 100%. Under the new exposure drafts, minority interest will also be recorded at fair value. In the past, the minority interest was maintained at historical cost. The new exposure draft does not require previously recorded minority interest to be adjusted to fair value.

D. The current presentation that GE uses is very informative because you have financial statements for each segment (GE and GECS separated). This allows the user to see the nature of the types of accounts that GECS is involved in, as well as their magnitude (financing receivables and long-term borrowings, for example). In addition, it is crucial that the reader is able to see the accounts for the consolidated entity. For instance, if GE simply used the equity method to record GECS, it would appear that GE is only responsible for $74,599 of liabilities (see GE's unconsolidated columns), when in reality, GECS has debt of $487,542. This debt is reflected in the consolidated columns. GECS's debt is not recorded as a line item on GE's books if the equity method is used and consolidation does not occur. It would be considered 'off balance sheet' debt. If undisclosed, this might be viewed in some respects as similar to the type of off-balance sheet debt in some of the partnerships that got Enron into so much trouble.

## Answers to Exercises

### Exercise 4-1

**Part A – Cost Method**

**2009**

| | | |
|---|---|---|
| Investment in Song Company | 387,000 | |
| Cash | | 387,000 |
| | | |
| Cash | 20,000 | |
| Dividend Income (.8 × $25,000) | | 20,000 |

**2010**

| | | |
|---|---|---|
| Cash | 40,000 | |
| Dividend Income (.8 × $50,000) | | 40,000 |

**2011**

| | | |
|---|---|---|
| Cash | 28,000 | |
| Investment in Song Company (.8 × $35,000)<br>(liquidating dividend) | | 28,000 |

**Part B – Partial Equity Method**

**2009**

| | | |
|---|---|---|
| Investment in Song Company | 387,000 | |
| Cash | | 387,000 |
| | | |
| Investment in Song Company | 50,800 | |
| Equity Income (.8 × $63,500) | | 50,800 |
| | | |
| Cash | 20,000 | |
| Investment in Song Company | | 20,000 |

**2010**

| | | |
|---|---|---|
| Investment in Song Company | 42,000 | |
| Equity Income (.8 × $52,500) | | 42,000 |
| | | |
| Cash | 40,000 | |
| Investment in Song Company | | 40,000 |

**2011**

| | | |
|---|---|---|
| Equity Loss (.8 x $55,000) | 44,000 | |
| Investment in Song Company | | 44,000 |
| | | |
| Cash | 28,000 | |
| Investment in Song Company (.8 × $35,000) | | 28,000 |

## Exercise 4-1 (continued)

### Part C – Complete Equity Method

|  | Parent Share | Noncontrolling Share | Entire Value |
|---|---|---|---|
| Cost of investment | **387,000** | **96,750** | 483,750 * |
| Book value acquired($475,000 x .80) | 380,000 | 95,000 | **475,000** |
| Difference between Implied and Book value | 7,000 | 1,750 | **8,750** |
| Allocated to undervalued depreciable assets | (7,000) | (1,750) | **(8,750)** |
| Balance | - 0 - | - 0 - | - 0 - |

* $387,000/.80
Amortization per year Parent ($7,000/10) = $700

| | | |
|---|---|---|
| **2009** | | |
| Investment in Song Company | 387,000 | |
| Cash | | 387,000 |
| | | |
| Investment in Song Company | 50,800 | |
| Equity Income (.8 × $63,500) | | 50,800 |
| | | |
| Equity Income ($7,000/10) | 700 | |
| Investment in Song Company | | 700 |
| | | |
| Cash | 20,000 | |
| Investment in Song Company | | 20,000 |
| | | |
| **2010** | | |
| Investment in Song Company | 42,000 | |
| Equity Income (.8 × $52,500) | | 42,000 |
| | | |
| Equity Income ($7,000/10) | 700 | |
| Investment in Song Company | | 700 |
| | | |
| Cash | 40,000 | |
| Investment in Song Company | | 40,000 |
| | | |
| **2011** | | |
| Equity Loss (.8 x $55,000) | 44,000 | |
| Investment in Song Company | | 44,000 |
| | | |
| Equity Income ($7,000/10) | 700 | |
| Investment in Song Company | | 700 |
| | | |
| Cash | 28,000 | |
| Investment in Song Company (.8 × $35,000) | | 28,000 |

## Exercise 4-2

Workpaper entries 12/31/13 – Cost Method

| | | |
|---|---|---|
| Investment in Salt Company | 99,000 | |
| Retained Earnings 1/1 - Park Company | | 99,000 |
| To establish reciprocity (.90 × ($160,000 – $50,000)) | | |
| | | |
| Dividend Income | 9,000 | |
| Dividends Declared - Salt Company | | 9,000 |
| | | |
| Common Stock - Salt Company | 450,000 | |
| Retained Earnings 1/1/13 - Salt Company | 160,000 | |
| Land | 16,667 | |
| Investment in Salt Company ($465,000 + $99,000) | | 564,000 |
| Noncontrolling Interest ($51,667 + .10 x ($160,000 – $50,000) | | 62,667 |

Computation and Allocation of Difference between Implied and Book Value Acquired

| | Parent Share | Non-Controlling Share | Entire Value |
|---|---|---|---|
| Purchase price and implied value | **465,000** | **51,667** | 516,667 * |
| Less: Book value of equity acquired: | 450,000 | 50,000 | **500,000** |
| Difference between implied and book value | 15,000 | 1,667 | **16,667** |
| Allocated to undervalued land | (15,000) | (1,667) | **(16,667)** |
| Balance | - 0 - | - 0 - | - 0 - |

*$465,000/.90

## Exercise 4-3

Workpaper entries 12/31/17 – Equity Method

The balance in the investment account at the beginning of the year is $532,000, which is computed as: [$494,000 + (.95 x ($160,000 – $120,000))] = $532,000

| | | |
|---|---|---|
| Common Stock - Succo Company | 300,000 | |
| Other Contributed Capital - Succo Company | 100,000 | |
| Retained Earnings 1/1/17 - Succo Company | 160,000 | |
| Investment in Succo Company | | 532,000 |
| Noncontrolling Interest* | | 28,000 |

* $520,000 x .05 + (.05 x ($160,000 - $120,000)) = 28,000

| | | |
|---|---|---|
| Equity Income ($40,000)(.95) | 38,000 | |
| Dividends Declared ($19,000)(.95) | | 18,050 |
| Investment in Succo Company | | 19,950 |

In this instance, the partial and complete equity methods result in the same entries because the amount paid for the acquisition of Succo is exactly 95% of Succo's book value. Thus, there are no asset adjustments and no excess amortization or depreciation to consider. The equity income under the complete equity method is the same as under the partial equity method (95% of reported income of Succo).

## Exercise 4-4

| | Parent Share | Non-Controlling Share | Entire Value |
|---|---|---|---|
| Purchase price and implied value | **310,000** | **54,706** | 364,706 * |
| Less: Book value of equity acquired: | 293,250 | 51,750 | **345,000** |
| Difference between implied and book value | 16,750 | 2,956 | **19,706** |
| Goodwill | (16,750) | (2,956) | **(19,706)** |
| Balance | - 0 - | - 0 - | - 0 - |

* $310,000/.85

**Part A** – Workpaper entries 12/31/12 - Equity Method

| | | |
|---|---|---|
| Investment in Serena Company | 18,700 | |
| Dividends Declared - Serena Company (.85)($12,000) | | 10,200 |
| Equity Loss (.85)($10,000 loss) | | 8,500 |

| | | |
|---|---|---|
| Common Stock - Serena Company | 240,000 | |
| Other Contributed Capital - Serena Company | 55,000 | |
| Retained Earnings 1/1/12 - Serena Company | 42,500 [a] | |
| Difference between Implied and Book Value (Goodwill) | 19,706 | |
| Investment in Serena Company ($310,000 – $6,375*) | | 303,625 |
| Noncontrolling Interest | | 53,581 |

* [($50,000 - $42,500) x .85] = 6,375; ** $54,706 - [($50,000 - $42,500) x .15] = $53,581

[a] $42,500 = $20,500 at year-end plus 2012 loss of $10,000 plus 2012 dividends of $12,000

| | | |
|---|---|---|
| Goodwill | 19,706 | |
| Difference between Implied and Book Value | | 19,706 |

The partial equity and the complete equity methods result in the same entries because the excess of the cost over fair value of net assets is allocated to goodwill, a non-amortizable asset. If any of this excess is allocated to depreciable assets or intangible assets with limited lives (subject to amortization), additional expenses will be recorded under the complete equity method.

**Part B** – Workpaper entries 12/31/12 - Cost Method

| | | |
|---|---|---|
| Retained Earnings 1/1 - Poco Company | 6,375 | |
| Investment in Serena Company | | 6,375 |

To establish reciprocity (.85 × ($50,000 – $42,500))

| | | |
|---|---|---|
| Investment in Serena Company | 10,200 | |
| Dividends Declared - Serena Company | | 10,200 |

| | | |
|---|---|---|
| Common Stock - Serena Company | 240,000 | |
| Other Contributed Capital - Serena Company | 55,000 | |
| Retained Earnings 1/1/12 - Serena Company | 42,500 | |
| Difference between Implied and Book Value | 19,706 | |
| Investment in Serena Company ($310,000 – $6,375) | | 303,625 |
| Noncontrolling Interest | | 53,581 |

**Exercise 4-4 (continued)**

| | | |
|---|---|---|
| Goodwill | 19,706 | |
| Difference between Implied and Book Value | | 19,706 |

## Exercise 4-5

Workpaper Entries and Noncontrolling Interest

| | |
|---|---|
| Cost of investment | $ 650,000 |
| Less: excess cost allocated to land | 20,000 |
| Book value acquired (90%) | $ 630,000 |

| | |
|---|---|
| Total stockholders' equity - Set Company ($630,000/.90) | 700,000 |
| Less: Retained earnings, 1/1/09 | 190,000 |
| Common stock, Set Company, 1/1/09 | $ 510,000 |

Computation and Allocation of Difference between Implied and Book Value Acquired

| | Parent Share | Non-Controlling Share | Entire Value |
|---|---|---|---|
| Purchase price and implied value | **$650,000** | **72,222** | 722,222 * |
| Less: Book value of equity acquired: | 630,000 | 70,000 | **700,000** |
| Difference between implied and book value | 20,000 | 2,222 | **22,222** |
| Goodwill | (20,000) | (2,222) | **(22,222)** |
| Balance | - 0 - | - 0 - | - 0 - |

* $650,000/.90

**Part A Eliminating entries – cost method**

| | | |
|---|---|---|
| Dividend Income (.90)($50,000) | 45,000 | |
| Dividends Declared - Set Company | | 45,000 |
| | | |
| Common Stock - Set Company ($700,000 – $190,000) | 510,000 | |
| Retained Earnings 1/1/09 - Set Company | 190,000 | |
| Difference between Implied and Book Value | 22,222 | |
| Investment in Salt Company | | 650,000 |
| Noncontrolling Interest | | 72,222 |
| | | |
| Land | 22,222 | |
| Difference between Implied and Book Value | | 22,222 |

**Part B Eliminating entries – equity method**

| | | |
|---|---|---|
| Equity Income (.90)($132,000) | 118,800 | |
| Dividends Declared - Set Company (.90)($50,000) | | 45,000 |
| Investment in Set Company | | 73,800 |
| | | |
| Common Stock - Set Company | 510,000 | |
| Retained Earnings 1/1/09 - Set Company | 190,000 | |
| Difference between Implied and Book Value | 22,222 | |
| Investment in Salt Company | | 650,000 |
| Noncontrolling Interest | | 72,222 |

**Exercise 4-5 (continued)**

| | | |
|---|---|---|
| Land | 22,222 | |
| Difference between Implied and Book Value | | 22,222 |

**Part C Noncontrolling Interest**

$72,222 + (.1 × $132,000) - (.1 × $50,000) = $80,422

The noncontrolling interest will be the same regardless of the method used to account for the investment on Plate Company's books.

**Exercise 4-6**

Journal and Workpaper Entries - Equity Method

**Part A** Journal Entries

| | | |
|---|---|---|
| Investment in Sales | 350,000 | |
| Cash | | 350,000 |
| Investment in Sales ($148,000)(.85) | 125,800 | |
| Equity in Subsidiary Income | | 125,800 |
| Cash ($50,000)(.85) | 42,500 | |
| Investment in Sales | | 42,500 |

**Part B** Workpaper Entries

| | | |
|---|---|---|
| Equity in Subsidiary Income | 125,800 | |
| Dividends Declared - Sales | | 42,500 |
| Investment in Sales | | 83,300 |
| Common Stock - Sales | 100,000 | |
| Other Contributed Capital – Sales | 40,000 | |
| Retained Earnings 1/1 – Sales | 140,000 | |
| Difference between Implied and Book Value | 131,765 | |
| Investment in Sales | | 350,000 |
| Noncontrolling Interest | | 61,765 |
| Goodwill | 131,765 | |
| Difference between Implied and Book Value | | 131,765 |

Computation and Allocation of Difference between Implied and Book Value Acquired

| | Parent Share | Non-Controlling Share | Entire Value |
|---|---|---|---|
| Purchase price and implied value | **350,000** | **61,765** | 411,765 * |
| Less: Book value of equity acquired: | 238,000 | 42,000 | **280,000** |
| Difference between implied and book value | 112,000 | 19,765 | **131,765** |
| Goodwill | (112,000) | (19,765) | **(131,765)** |
| Balance | - 0 - | - 0 - | - 0 - |

* $350,000/.85

## Exercise 4-7

Journal and Workpaper Entries - Equity Method

**Part A** Journal Entries

| | | |
|---|---|---|
| Investment in Sales (.85)($190,000) | 161,500 | |
| Equity in Subsidiary Income | | 161,500 |
| | | |
| Cash | 42,500 | |
| Investment in Sales (.85)($50,000) | | 42,500 |

**Part B** Workpaper Entries

| | | |
|---|---|---|
| Equity in Subsidiary Income | 161,500 | |
| Dividends Declared - Sales | | 42,500 |
| Investment in Sales | | 119,000 |
| | | |
| Common Stock - Sales | 100,000 | |
| Other Contributed Capital – Sales | 40,000 | |
| Retained Earnings 1/1 – Sales* | 238,000 | |
| Difference between Implied and Book Value | 131,765 | |
| Investment in Sales ($350,000 + $83,300**) | | 433,300 |
| Noncontrolling interest ($61,765 + $14,700***) | | 76,465 |
| Goodwill | 131,765 | |
| Difference between Implied and Book Value | | 131,765 |

* $140,000 + ($148,000 - $50,000)
** ($148,000 - $50,000) x .85
*** ($148,000 - $50,000) x .15

**Exercise 4-8**

Workpaper Entries and Consolidate Net Income - Cost Method

**Part A** Workpaper Entries

**2010**

| | | |
|---|---|---|
| Dividend Income (.80 × $2,000) | 1,600 | |
| Dividends Declared - Smith Company | | 1,600 |
| | | |
| Common Stock – Smith | 25,000 | |
| Other Contributed Capital – Smith | 10,000 | |
| Retained Earnings 1/1/10 - Smith | 10,000 | |
| Difference between Implied and Book Value | 2,500 | |
| Subsidiary Income Purchased * | 15,000 | |
| Investment in Smith Company | | 50,000 |
| Noncontrolling Interest | | 12,500 |
| | | |
| Land | 2,500 | |
| Difference between Implied and Book Value | | 2,500 |

Computation and Allocation of Difference between Implied and Book Value Acquired

| | Parent Share | Non-Controlling Share | Entire Value |
|---|---|---|---|
| Purchase price and implied value | **50,000** | **12,500** | 62,500 * |
| Less: Book value of equity acquired: | | | |
| Equity | 36,000 | 9,000 | **45,000** |
| Subsidiary Income purchased** | 12,000 | 3,000 | **15,000** |
| Total book value | 48,000 | 12,000 | 60,000 |
| Difference between implied and book value | 2,000 | 500 | **2,500** |
| Goodwill | (2,000) | (500) | **(2,500)** |
| Balance | - 0 - | - 0 - | - 0 - |

* $50,000/.80

** Subsidiary Income Purchased ( $\frac{4}{12} \times \$45,000$) = 15,000

Estimated Retained Earnings of Smith on date of acquisition**

| | |
|---|---|
| Retained earnings, 1/1 | $ 10,000 |
| Smith earnings to 5/1 = (4/12)($45,000) | 15,000 |
| Retained earnings, 5/1 | $ 25,000 |

**2011**

| | | |
|---|---|---|
| Investment in Smith | 22,400 | |
| Retained Earnings 1/1 Peters | | 22,400 |
| To establish reciprocity (.80 × ($53,000 – $25,000**) | | |
| | | |
| Common Stock - Smith | 25,000 | |
| Other Contributed Capital - Smith | 10,000 | |
| Retained Earnings 1/1/11 - Smith | 53,000 | |
| Land | 2,500 | |
| Investment in Smith Company ($50,000 + $22,400) | | 72,400 |
| Noncontrolling Interest ($12,500+ .20 x ($53,000 – $25,000) | | 18,100 |

**Exercise 4-8 (continued)**

**Part B** Consolidated Net Income

| | 2010 | 2011 |
|---|---|---|
| Peters Company's reported net income | 64,000 | 37,500 |
| Less: dividend income from Smith | (1,600) | 0 |
| Peters' income from independent operations | 62,400 | 37,500 |
| Plus: Peter's share of Smith's net income in 2010 since acquisition (.80)(8/12)($45,000) | 24,000 | |
| Less: Peter's share of Smith's net loss in 2010 (.80 × $5,000) | | (4,000) |
| Consolidated net income | 86,400 | 33,500 |

Consolidated Retained Earnings

| | 2010 | 2011 |
|---|---|---|
| Peter's 12/31 retained earnings ($80,000 + $64,000 - $15,000) | 129,000 | 161,500 |
| Plus: Peter's share of the increase in Smith's retained earnings from the date of acquisition to the current date: | | |
| (.80 × ($53,000 – $25,000)) | 22,400 | |
| (.80 × ($48,000 – $25,000)) | | 18,400 |
| | $151,400 | $179,900 |

**Exercise 4-9**

Workpaper Entries - Cost Method

**2010**

| | | |
|---|---|---|
| Dividend Income (.80)($2,000) | 1,600 | |
| Dividends Declared - Smith Company | | 1,600 |

| | | |
|---|---|---|
| Common Stock – Smith | 25,000 | |
| Other Contributed Capital – Smith | 10,000 | |
| Retained Earnings 5/1/10 – Smith * | 25,000 | |
| Difference between Implied and Book Value | 2,500 | |
| Investment in Smith Company | | 50,000 |
| Noncontrolling Interest [($50,000/.80) x .20] | | 12,500 |

| | | |
|---|---|---|
| Land | 2,500 | |
| Difference between Implied and Book Value | | 2,500 |

* See previous problem to compute the balance of retained earnings on 5/1/10.

**Exercise 4-10**

Journal and Workpaper Entries - Equity Method

**Part A** Journal Entries

| | | |
|---|---|---|
| Investment in Star | 210,000 | |
| Cash | | 210,000 |

| | | |
|---|---|---|
| Investment in Star (0.90 × (3/12) × $60,000) | 13,500 | |
| Equity in Subsidiary Income | | 13,500 |
| To account for prorated stake in equity | | |

| | | |
|---|---|---|
| Cash (0.90 × $10,000) | 9,000 | |
| Investment in Star | | 9,000 |
| To account for reduction in equity due to dividends | | |

**Exercise 4-10 (continued)**

**Part B** Workpaper Entries

| | | |
|---|---|---|
| Equity in Subsidiary Income (0.90)(3/12)($60,000) | 13,500 | |
| Dividends Declared – Star (.90)($10,000) | | 9,000 |
| Investment in Star | | 4,500 |

| | | |
|---|---|---|
| Common Stock - Star | 70,000 | |
| Other Contributed Capital – Star | 30,000 | |
| Retained Earnings – Star * | 115,000 | |
| Difference between Implied and Book Value ** | 18,333 | |
| Investment in Star | | 210,000 |
| Noncontrolling Interest | | 23,333 |
| Goodwill | 18,333 | |
| Difference between Implied and Book Value | | 18,333 |

* Retained earnings on 10/1/10

| | |
|---|---|
| Retained earnings on 1/1/10 | $ 70,000 |
| Income purchased to 10/1/10 (9/12 x $60,000) | 45,000 |
| Retained earnings on 10/1/10 | $ 115,000 |

**Computation and Allocation of Difference between Implied and Book Value Acquired

| | Parent Share | Non-Controlling Share | Entire Value |
|---|---|---|---|
| Purchase price and implied value | **210,000** | **23,333** | 233,333 * |
| Less: Book value of equity acquired: | | | |
| Equity | 153,000 | 17,000 | **170,000** |
| Subsidiary Income purchased | 40,500 | 4,500 | **45,000** ** |
| Total book value | 193,500 | 21,500 | 215,000 |
| Difference between implied and book value | 16,500 | 1,833 | **18,333** |
| Goodwill | (16,500) | (1,833) | **(18,333)** |
| Balance | - 0 - | - 0 - | - 0 - |

* $210,000/.90

** $60,000 x 9/12

## Exercise 4-10 (continued)

**Part C** Workpaper Entries- Full year reporting alternative

| | | |
|---|---|---|
| Equity in Subsidiary Income (0.90)(3/12)($60,000) | 13,500 | |
| Dividends Declared – Star (.90)($10,000) | | 9,000 |
| Investment in Star | | 4,500 |
| | | |
| Common Stock - Star | 70,000 | |
| Other Contributed Capital – Star | 30,000 | |
| Retained Earnings – Star | 70,000 | |
| Purchased Income | 45,000 | |
| Difference between Implied and Book Value | 18,333 | |
| Investment in Star | | 210,000 |
| Noncontrolling Interest | | $23,333 |
| | | |
| Goodwill | 18,333 | |
| Difference between Implied and Book Value | | 18,333 |

**Exercise 4-11**

Consolidated Statement of Cash Flows

**Part A** Cash flows from operating activities - Direct Method

| | | |
|---|---|---|
| Cash received from customers* | | $ 612,000 |
| Less cash paid for: | | |
| Merchandise purchases** | $323,000 | |
| Selling expenses*** | 138,000 | |
| Administrative expenses**** | 102,000 | 563,000 |
| Net cash flow from operating activities | | $ 49,000 |

| | |
|---|---|
| * Beginning accounts receivable | $229,000 |
| Plus: Sales | 701,000 |
| Less: ending accounts receivable | (318,000) |
| Cash received from customers | $612,000 |

| | |
|---|---|
| ** Cost of Sales | $263,000 |
| Less: beginning inventory | (194,000) |
| Plus: ending inventory | 234,000 |
| Accrual basis purchases | 303,000 |
| Plus: beginning accounts payable | 99,000 |
| Less: ending accounts payable | (79,000) |
| Cash paid for merchandise purchased | $323,000 |

| | |
|---|---|
| ***Accrual selling expenses | $122,000 |
| Less: beginning prepaid selling expenses | (26,000) |
| Plus: ending prepaid selling expenses | 30,000 |
| Plus: beginning accrued selling expenses | 96,000 |
| Less: ending accrued selling expenses | (84,000) |
| Cash paid for administrative expenses | $138,000 |

| | |
|---|---|
| **** Accrual administrative expenses | $85,000 |
| Plus beginning accrued administrative expenses | 56,000 |
| Less ending accrued administrative expenses | (39,000) |
| Cash paid for administrative expenses | $102,000 |

**Part B** Cash flows from operating activities - Indirect Method

| | |
|---|---|
| Consolidated net income | $ 155,000 |
| Adjustments to convert net income to net cash flows from operating activities: | |
| Depreciation expense | 76,000 |
| Increase in accounts receivable | (89,000) |
| Increase in inventory | (40,000) |
| Increase in prepaid selling expenses | (4,000) |
| Decrease in accounts payable | (20,000) |
| Decrease in accrued selling expenses | (12,000) |
| Decrease in accrued administrative expenses | (17,000) |
| Net cash flow from operating activities | $49,000 |

## Exercise 4-12

### Part A

**Computation and Allocation of Difference between Implied and Book Value Acquired

| | Parent Share | Non-Controlling Share | Entire Value |
|---|---|---|---|
| Purchase price and implied value | **$268,000** | **67,000** | 335,000 |
| Less: Book value of equity acquired: | 192,000 | 48,000 | **240,000** |
| Difference between implied and book value | 76,000 | 19,000 | **95,000** |
| Land | (16,000) | (4,000) | **(20,000)** |
| Balance | 60,000 | 15,000 | 75,000 |
| Goodwill | (60,000) | (15,900) | **(75,000)** |
| Balance | -0- | -0- | -0- |

### Part B

| | | |
|---|---|---|
| Investment in Sulfurst | 268,000 | |
| Cash | | 268,000 |

### Part C

**(1) – Cost Method**

**2012**

| | | |
|---|---|---|
| Cash | 19,200 | |
| Dividend Income (.8 × $24,000) | | 19,200 |

**2013**

| | | |
|---|---|---|
| Cash | 17,280 | |
| Dividend Income (.8 × $21,600) | | 17,280 |

**(2) – Partial Equity Method**

**2012**

| | | |
|---|---|---|
| Investment in Song Company | 32,000 | |
| Equity in Subsidiary Income (.8 × $40,000) | | 32,000 |
| Cash (.8 × $24,000) | 19,200 | |
| Investment in Song Company | | 19,200 |

**2013**

| | | |
|---|---|---|
| Investment in Song Company | 36,000 | |
| Equity in Subsidiary Income (.8 × $45,000) | | 36,000 |
| Cash | 17,280 | |
| Investment in Song Company (.8 × $21,600) | | 17,280 |

## Exercise 4-12 (continued)

### (3) – Complete Equity Method

| | | |
|---|---|---|
| **2012** | | |
| Investment in Song Company | 32,000 | |
| Equity in Subsidiary Income (.8 × $40,000) | | 32,000 |
| | | |
| Cash (.8 × $24,000) | 19,200 | |
| Investment in Song Company | | 19,200 |
| | | |
| **2013** | | |
| Investment in Song Company | 36,000 | |
| Equity in Subsidiary Income (.8 × $45,000) | | 36,000* |
| | | |
| Cash | 17,280 | |
| Investment in Song Company (.8 × $21,600) | | 17,280 |

*NOTE: There is no difference between the partial and complete equity methods in this exercise because the difference between implied value and book value was attributable to land and goodwill, and no impairment occurred. Had there been differences attributable to depreciable or amortizable assets, then the entries would have been adjusted under the complete equity method to reflect the impact of excess depreciation and/or amortization.

## Exercise 4-13

1. Since the income statement includes the account 'equity in net loss of subsidiary,' we know that the equity method is being used.

2. Therefore, the controlling interest in consolidated income is the solution to the retained earnings T account, or $195,000.

Retained Earnings - Pressing

| | | | |
|---|---|---|---|
| | | 1/1 | 380,000 |
| Dividends | 75,000 | | |
| | | Controlling interest in consolidated income | ? |
| | | 12/31 | 500,000 |

Controlling interest in consolidated income = ($500,000 - $380,000 + $75,000) = $195,000.

3. From part 2, income from its independent operations is equal to consolidated income plus the equity loss, or ($195,000 + $55,000) = $250,000.

**Exercise 4-13 (continued)**

4. Since there is no difference between implied and book value, Pressing Inc.'s retained earnings will equal consolidated retained earnings under both the partial and complete equity methods. Therefore, the ending balance in consolidated retained earnings is $500,000.

5. Consolidated dividends equal Pressing Inc.'s dividends of $75,000. Because the subsidiary is wholly owned, all its dividends are eliminated.

6. The beginning balance in Stressing's retained earnings is the solution to the following T-account.

Retained Earnings - Stressing

| | | | |
|---|---|---|---|
| | | 1/1 Begin. Bal. | -?- |
| Dividends | 24,000 | | |
| Loss | 55,000 | | |
| | | 12/31 | 260,000 |

Therefore, the beginning balance is ($260,000 + $24,000 + $55,000) = $339,000

7. There is no difference between the implied and book value at acquisition.

Workpaper entries

| | | |
|---|---|---|
| Investment in Stressing | 79,000 | |
| Dividends Declared –Stressing | | 24,000 |
| Equity in Subsidiary Income (Loss) | | 55,000 |
| | | |
| Common Stock – Stressing | 20,000 | |
| Other Contributed Capital – Stressing | 380,000 | |
| Retained Earnings – Stressing | 339,000 | |
| Difference between Implied and Book Value | 0 | |
| Investment in Stressing | | 739,000 |

8. Retained earnings would reflect only the income from its independent operations plus the dividend income from Stressing each year (instead of Stressing's earnings).

9. A. The first entry from part 7 would be replaced by the following:

| | | |
|---|---|---|
| Dividend Income | 24,000 | |
| Dividends Declared - Stressing Company | | 24,000 |

B. In addition, an entry would be needed to convert to equity/establish reciprocity in the amount of the change in Stressing's retained earnings from acquisition to the beginning of the current year.

C. After the reciprocity entry, the entry to eliminate the investment account is the same as shown in part 7.

## Exercise 4-14

| | | |
|---|---|---|
| Cash flows from operating activities: | | |
| Consolidated net income | | $155,889 |
| Adjustments to convert consolidated net income to net cash flow from operating activities | | |
| Depreciation expense (($540,000 + $750,000 + $166,666*) – $1,385,555) | 71,111 | |
| Increase in inventories ($454,000 – $190,000 – $140,000) | (124,000) | |
| Decrease in accrued payables ($111,000 – $150,000 – $90,000) | (129,000) | (181,889) |
| Net cash flow from operating activities | | (26,000) |
| Cash flows from investing activities: | | |
| Acquired Lazytoo company (net of cash acquired) | | (590,000) |
| Cash flows from financing activities: | | |
| Proceeds from the issuance of bonds | 300,000 | |
| Cash dividends paid ($10,000 + (.10)($5,000)) | (10,500) | |
| Net cash flow from financing activities | | 289,500 |
| Decrease in cash | | ($326,500) |

* $600,000/0.9 – [($200,000 + $300,000)] = $166,667; this is equivalent to doing a CAD Schedule, in which the purchase price is used to derive Implied Value of $666,667. Implied Value minus Book Value of Equity yields the Difference between IV and BV, which is allocated to mark up PPE of the sub.

## Exercise 4-15B

### Part A – Cost Method

**(1) Undistributed income is expected to be received as future dividend.**

| | |
|---|---|
| Set Company net income | $132,000 |
| Set Company dividends | 50,000 |
| Undistributed income | 82,000 |
| Percent owned | 70% |
| Plenty Company's share of undistributed income | 57,400 |
| Percent of dividends taxed | 20% |
| Future dividends that are taxed | 11,480 |
| Income tax rate | 40% |
| Deferred tax liability | $ 4,592 |

**Workpaper Entry**

| | | |
|---|---|---|
| Tax Expense | 4,592 | |
| Deferred Tax Liability | | 4,592 |

**Exercise 4-15B (continued)**

**(2) Undistributed income is expected to be received as future capital gain.**

| | |
|---|---|
| Set Company net income | $132,000 |
| Set Company dividends | 50,000 |
| Undistributed income | 82,000 |
| Percent owned | 70% |
| Plenty Company's share of undistributed income | 57,400 |
| Capital gains tax rate | 20% |
| Deferred tax liability | $11,480 |

**Workpaper Entry**

| | | |
|---|---|---|
| Tax Expense | 11,480 | |
| Deferred Tax Liability | | 11,480 |

**Part B – Partial Equity Method**

**(1) Undistributed income is expected to be received as future dividend.**

| | |
|---|---|
| Set Company net income | $132,000 |
| Set Company dividends | 50,000 |
| Undistributed income | 82,000 |
| Percent owned | 70% |
| Plenty Company's share of undistributed | 57,400 |
| Percent of dividends taxed | 20% |
| Future dividends that are taxed | 11,480 |
| Income tax rate | 40% |
| Deferred tax liability | $4,592 |

**Plenty Company's Journal Entry**

| | | |
|---|---|---|
| Tax Expense | 4,592 | |
| Deferred Tax Liability | | 4,592 |

**(2) Undistributed income is expected to be received as future capital gain.**

| | |
|---|---|
| Set Company net income | $132,000 |
| Set Company dividends | 50,000 |
| Undistributed income | 82,000 |
| Percent owned | 70% |
| Plenty Company's share of undistributed | 57,400 |
| Capital gains tax rate | 20% |
| Deferred tax liability | $11,480 |

**Plenty Company's Journal Entry**

| | | |
|---|---|---|
| Tax Expense | 11,480 | |
| Deferred Tax Liability | | 11,480 |

**Part C – Complete Equity Method**

The answer is the same as the partial equity method since the difference between implied and book value relates to land.

## Answers to Problems

### Problem 4-1

Journal Entries - Cost Method

| Year | Net Income (Loss) | Cumulative Net Income | Cumulative Dividends | Undistributed Income |
|---|---|---|---|---|
| 2009 | 1,997,800 | 1,997,800 | 500,000 | 1,497,800 |
| 2010 | 476,000 | 2,473,800 | 1,000,000 | 1,473,800 |
| 2011 | (179,600) | 2,294,200 | 1,500,000 | 794,200 |
| 2012 | (323,800) | 1,970,400 | 2,000,000 | (29,600) |

**Part A – Cost Method**

| | | |
|---|---|---|
| **2009** | | |
| Investment in Singer Co. | 4,972,000 | |
| Cash | | 4,972,000 |
| Cash (.90)($500,000) | 450,000 | |
| Dividend Income | | 450,000 |
| **2010** | | |
| Cash (.90)($500,000) | 450,000 | |
| Dividend Income | | 450,000 |
| **2011** | | |
| Cash (.90)($500,000) | 450,000 | |
| Dividend Income | | 450,000 |
| **2012** | | |
| Cash (.90)($500,000) | 450,000 | |
| Dividend Income | | 423,360 |
| Investment in Singer Co. (.90 × $29,600) | | 26,640 |
| To account for liquidating dividend | | |

**Part B – Partial Equity Method**

| | | |
|---|---|---|
| **2009** | | |
| Investment in Singer Co. | 4,972,000 | |
| Cash | | 4,972,000 |
| Cash (.90)($500,000) | 450,000 | |
| Investment in Singer Co. | | 450,000 |
| Investment in Singer Co. | 1,798,020 | |
| Equity in Subsidiary Income (.90)($1,997,800) | | 1,798,020 |
| **2010** | | |
| Cash (.90)($500,000) | 450,000 | |
| Investment in Singer Co. | | 450,000 |
| Investment in Singer Co. | 428,400 | |
| Equity in Subsidiary Income (.90)($476,000) | | 428,400 |

**Problem 4-1 (continued)**

**2011**

| | | |
|---|---|---|
| Cash (.90)($500,000) | 450,000 | |
| Investment in Singer Co. | | 450,000 |
| | | |
| Equity in Subsidiary Income (.90)($179,600) | 161,640 | |
| Investment in Singer Co. | | 161,640 |

**2012**

| | | |
|---|---|---|
| Cash (.90)($500,000) | 450,000 | |
| Investment in Singer Co. | | 450,000 |
| | | |
| Equity in Subsidiary Income (.90)($323,800) | 291,420 | |
| Investment in Singer Co. | | 291,420 |

**Part C – Complete Equity Method**

Computation and Allocation of Difference between Implied and Book Value Acquired

| | Parent Share | Non-Controlling Share | Entire Value |
|---|---|---|---|
| Purchase price and implied value | **4,972,000** | **552,444** | 5,524,444 * |
| Less: Book value of equity acquired: | 4,961,160 | 551,240 | **5,512,400** |
| Difference between implied and book value | 10,840 | 1,204 | **12,044** |
| Undervalued depreciable assets (15 year life) | (10,840) | (1,204) | **(12,044)** |
| Balance | - 0 - | - 0 - | - 0 - |

* $4,972,000/.90

**2009**

| | | |
|---|---|---|
| Investment in Singer Co. | 4,972,000 | |
| Cash | | 4,972,000 |
| | | |
| Cash (.90)($500,000) | 450,000 | |
| Investment in Singer Co. | | 450,000 |
| | | |
| Investment in Singer Co. | 1,798,020 | |
| Equity Income (.90)($1,997,800) | | 1,798,020 |
| | | |
| Equity in Subsidiary Income ($10,840/15 years) | 723 | |
| Investment in Singer Co. | | 723 |

**2010**

| | | |
|---|---|---|
| Cash (.90)($500,000) | 450,000 | |
| Investment in Singer Co. | | 450,000 |
| | | |
| Investment in Singer Co. | 428,400 | |
| Equity Income (.90)($476,000) | | 428,400 |
| | | |
| Equity in Subsidiary Income ($10,840/15 years) | 723 | |
| Investment in Singer Co. | | 723 |

**2011**

| | | |
|---|---|---|
| Cash (.90)($500,000) | 450,000 | |
| Investment in Singer Co. | | 450,000 |
| Equity in Subsidiary Income (.90)($179,600) | 161,640 | |
| Investment in Singer Co. | | 161,640 |
| Equity in Subsidiary Income ($10,840/15 years) | 723 | |
| Investment in Singer Co. | | 723 |

**2012**

| | | |
|---|---|---|
| Cash (.90)($500,000) | 450,000 | |
| Investment in Singer Co. | | 450,000 |
| Equity in Subsidiary Income (.90)($323,800) | 291,420 | |
| Investment in Singer Co. | | 291,420 |
| Equity in Subsidiary Income ($10,840/15 years) | 723 | |
| Investment in Singer Co. | | 723 |

**Problem 4-2**

**Part A –** Parry Corporation uses the cost method. If the cost method is used, Parry Corporation recognizes dividends received as income.

**Part B** Parry Corporation and Subsidiary
Consolidated Statements Workpaper
**Workpaper - Cost Method** For the Year Ended December 31, 2009

| | Parry Corp. | Sent Company | Eliminating Entries Dr. | Eliminating Entries Cr. | Consolidated Balances |
|---|---|---|---|---|---|
| **Income Statement** | | | | | |
| Sales | 476,000 | 154,500 | | | 630,500 |
| Dividend Income | 3,500 | | (1) 3,500 | | |
| Total Revenue | 479,500 | 154,500 | | | 630,500 |
| Cost of Goods Sold | 285,600 | 121,000 | | | 406,600 |
| Other Expenses | 45,500 | 29,500 | | | 75,000 |
| Total Cost and Expense | 331,100 | 150,500 | | | 481,600 |
| Net Income to Retained Earnings | 148,400 | 4,000 | 3,500 | | 148,900 |
| | Parry Corp. | Sent Company | Eliminating Entries Dr. | Eliminating Entries Cr. | Consolidated Balances |
| **Retained Earnings Statement** | | | | | |
| Retained Earnings 1/1 | | | | | |
| Parry Corporation | 76,000 | | | | 76,000 |
| Sent Company | | 19,500 | (2) 19,500 | | |
| Net Income from above | 148,400 | 4,000 | 3,500 | | 148,900 |
| Dividend Declared | | | | | |
| Parry Corporation | (17,500) | | | | (17,500) |
| Sent Company | | (3,500) | | (1) 3,500 | 0 |
| Retained Earnings 12/31 | 206,900 | 20,000 | 23,000 | 3,500 | 207,400 |
| **Balance Sheet** | | | | | |
| Cash | 84,400 | 29,000 | | | 113,400 |
| Accounts Receivable | 76,000 | 56,500 | | | 132,500 |
| Inventory 12/31 | 49,500 | 36,500 | | | 86,000 |
| Investment in Sent Company | 140,000 | | | (2) 140,000 | |
| Difference between Implied and Book Value | | | (2) 20,500 | (3) 20,500 | |
| Land | 4,000 | 12,000 | (3) 20,500 | | 36,500 |
| Total Assets | 353,900 | 134,000 | | | 368,400 |
| Accounts Payable | 27,000 | 14,000 | | | 41,000 |
| Common Stock: | | | | | |
| Parry Corporation | 120,000 | | | | 120,000 |
| Sent Company | | 100,000 | (2) 100,000 | | |
| Retained Earnings from above | 206,900 | 20,000 | 23,000 | 3,500 | 207,400 |
| Total Liabilities and Equity | 353,900 | 134,000 | 164,000 | 164,000 | 368,400 |

**Problem 4-2 (continued)**

(1) To eliminate intercompany dividends
(2) To eliminate investment in Sent Company
(3) To eliminate difference between implied and book value

Computation and Allocation of Difference between Implied and Book Value Acquired

| | Parent Share | Non-Controlling Share | Entire Value |
|---|---|---|---|
| Purchase price and implied value | **140,000** | **0** | 140,000 |
| Less: Book value of equity acquired: | 119,500 | 0 | **119,500** |
| Difference between implied and book value | 20,500 | 0 | **20,500** |
| Undervalued land | (20,500) | (0) | **(20,500)** |
| Balance | - 0 - | - 0 - | - 0 - |

**Problem 4-3**

**Part A –** Perkins Company uses the equity method. If the equity method is used, Perkins Company recognizes investment income from the investment based on the percentage owned times the investee net income.

**Part B** Perkins Company and Subsidiary
Consolidated Statements Workpaper
**Workpaper - Equity Method** For the Year Ended December 31, 2010

| | Perkins Company | Schultz Company | Eliminating Entries Dr. | Eliminating Entries Cr. | Consolidated Balances |
|---|---|---|---|---|---|
| **Income Statement** | | | | | |
| Sales | 380,000 | 170,000 | | | 550,000 |
| Equity in Subsidiary Income | 70,500 | | (1) 70,500 | | |
| Total Revenue | 450,500 | 170,000 | | | 550,000 |
| Cost of Goods Sold | 225,000 | 59,500 | | | 284,500 |
| Other Expenses | 40,000 | 40,000 | | | 80,000 |
| Total Cost and Expense | 265,000 | 99,500 | | | 364,500 |
| Net Income to Retained Earnings | 185,500 | 70,500 | 70,500 | | 185,500 |
| **Retained Earnings Statement** | | | | | |
| Retained Earnings 1/1 | | | | | |
| Perkins Company | 25,000 | | | | 25,000 |
| Schultz Company | | 54,000 | (3) 54,000 | | |
| Net Income from Above | 185,500 | 70,500 | 70,500 | | 185,500 |
| Dividends Declared | | | | | |
| Perkins Company | (15,000) | | | | (15,000) |
| Schultz Company | | (10,000) | | (2) 10,000 | |
| Retained Earnings 12/31 | 195,500 | 114,500 | 124,500 | 10,000 | 195,500 |
| **Balance Sheet** | | | | | |
| Cash | 25,000 | 30,000 | | | 55,000 |
| Inventory 12/31 | 105,000 | 97,500 | | | 202,500 |
| Investment in Schultz | 222,000 | | (2) 10,000 | (1) 70,500 | |
| | | | | (3) 161,500 | |
| Difference between Implied & Book Value | | | (3) 15,000 | (4) 15,000 | |
| Land | 111,000 | 97,000 | | | 208,000 |
| Goodwill | | | (4) 15,000 | | 15,000 |
| Total | 463,000 | 224,500 | | | 480,500 |
| Accounts Payable | 72,500 | 17,500 | | | 90,000 |
| Common Stock | | | | | |
| Perkins Company | 160,000 | | | | 160,000 |
| Schultz Company | | 75,000 | (3) 75,000 | | |
| Other Contributed Capital | | | | | |
| Perkins Company | 35,000 | | | | 35,000 |
| Schultz Company | | 17,500 | (3) 17,500 | | |
| Retained Earnings from above | 195,500 | 114,500 | 124,500 | 10,000 | 195,500 |
| Total | 463,000 | 224,500 | 257,000 | 257,000 | 480,500 |

**Problem 4-3 (continued)**

(1) To eliminate intercompany dividends
(2) To eliminate investment in Schultz Company
(3) To eliminate difference between implied and book value

Computation and Allocation of Difference between Implied and Book Value Acquired

| | Parent Share | Non-Controlling Share | Entire Value |
|---|---|---|---|
| Purchase price and implied value | **161,500** | **0** | 161,500 |
| Less: Book value of equity acquired: | 146,500 | 0 | **146,500** |
| Difference between implied and book value | 15,000 | 0 | **15,000** |
| Undervalued land | (15,000) | (0) | **(15,000)** |
| Balance | - 0 - | - 0 - | - 0 - |

## Problem 4-4
## Workpaper - Cost Method

| | Place Company | Shaw Inc. | Eliminations Debit | Eliminations Credit | Noncontrolling Interest | Consolidated Balances |
|---|---|---|---|---|---|---|
| **Income Statement** | | | | | | |
| Sales | 550,000 | 280,000 | | | | 830,000 |
| Dividend Income ($22,000 × .92) | 20,240 | | (1) 20,240 | | | |
| Total Revenue | 570,240 | 280,000 | | | | 830,000 |
| Cost of Goods Sold: | | | | | | |
| Inventory, 1/1 | 70,000 | 50,000 | | | | 120,000 |
| Purchases | 240,000 | 150,000 | | | | 390,000 |
| Available for Sale | 310,000 | 200,000 | | | | 510,000 |
| Inventory, 12/31 | 25,000 | 15,000 | | | | 40,000 |
| Cost of Goods Sold | 285,000 | 185,000 | | | | 470,000 |
| Selling Expenses | 28,000 | 20,000 | | | | 48,000 |
| Other Expenses | 15,000 | 13,000 | | | | 28,000 |
| Total Cost and Expense | 328,000 | 218,000 | | | | 546,000 |
| Net/Consolidated Income | 242,240 | 62,000 | | | | 284,000 |
| Noncontrolling Interest in Consol. Inc. | | | | | 4,960 * | (4,960) |
| Net Income to Retained Earnings | 242,240 | 62,000 | 20,240 | | 4,960 | 279,040 |
| **Retained Earnings Statement** | | | | | | |
| 1/1 Retained Earnings: | | | | | | |
| Place Company | 225,000 | | | | | 225,000 |
| Shaw Inc. | | 170,000 | (2) 170,000 | | | |
| Net Income from Above | 242,240 | 62,000 | 20,240 | | 4,960 | 279,040 |
| Dividends Declared | | | | | | |
| Place Company | (35,000) | | | | | (35,000) |
| Shaw Inc. | | (22,000) | | (1) 20,240 | (1,760) | |
| 12/31/ Retained Earnings to Balance Sheet | 432,240 | 210,000 | 190,240 | 20,240 | 3,200 | 469,040 |
| **Balance Sheet** | | | | | | |
| Cash | 80,350 | 87,000 | | | | 167,350 |
| Accounts and Notes Receivable | 200,000 | 210,000 | | (4) 15,000 | | 395,000 |
| Inventory | 25,000 | 15,000 | | | | 40,000 |
| Investment in Shaw Inc.. | 400,000 | | | (2) 400,000 | | |
| Difference b/w Implied & Book Value | | | (2) 15,783 | (3) 15,783 | | |
| Plant Assets | 300,000 | 200,000 | (3) 15,783 | | | 515,783 |
| Total | 1,005,350 | 512,000 | | | | 1,118,133 |
| Accounts and Notes Payable | 99,110 | 38,000 | (4) 15,000 | | | 122,110 |
| Other Liabilities | 45,000 | 15,000 | | | | 60,000 |
| Common Stock: | | | | | | |
| Place Company | 150,000 | | | | | 150,000 |
| Shaw Inc. | | 100,000 | (2) 100,000 | | | |
| Other Contributed Capital | | | | | | |
| Place Company | 279,000 | | | | | 279,000 |
| Shaw Inc. | | 149,000 | (2) 149,000 | | | |
| Retained Earnings from above | 432,240 | 210,000 | 190,240 | 20,240 | 3,200 | 469,040 |
| 1/1 Noncontrolling Interest | | | | (2) 34,783 | 34,783 | |
| 12/31 Noncontrolling Interest | | | | | 37,983 | 37,983 |
| Total | 1,005,350 | 512,000 | 485,806 | 485,806 | | 1,118,133 |

*(.08 × $62,000) = $4,960

**Problem 4-4 (continued)**

(1) To eliminate intercompany dividends.
(2) To eliminate Investment in Shaw and establish noncontrolling interest account.
(3) To allocate the difference between implied and book value.
(4) To eliminate intercompany receivables and payables.

Computation and Allocation of Difference between Implied and Book Value Acquired

| | Parent Share | Non-Controlling Share | Entire Value |
|---|---|---|---|
| Purchase price and implied value | **400,000** | **34,783** | 434,783 * |
| Less: Book value of equity acquired: | 385,480 | 33,520 | **419,000** |
| Difference between implied and book value | 14,520 | 1,263 | **15,783** |
| Undervalued land | (14,520) | (1,263) | **(15,783)** |
| Balance | -0 - | - 0 - | - 0 - |

* $400,000/.92

## Problem 4-5

**Part A** – Perez Company uses the cost method. If the cost method is used, Perez Company recognizes dividends received as income.

**Part B**

Perez Company and Subsidiary
Consolidated Statements Workpaper
For the Year Ended December 31, 2014

**Workpaper – Cost Method**

| | Perez Company | Sanchez Company | Eliminating Entries Dr. | Eliminating Entries Cr. | Noncontrolling Interest | Consolidated Balance |
|---|---|---|---|---|---|---|
| **Income Statement** | | | | | | |
| Sales | 110,000 | 42,000 | | | | 152,000 |
| Dividend Income | 10,800 | | (3) 10,800 | | | |
| Total Revenue | 120,800 | 42,000 | | | | 152,000 |
| Cost of Goods Sold | | | | | | |
| Inventory 1/1 | 14,000 | 8,000 | | | | 22,000 |
| Purchases | 84,000 | 20,000 | | | | 104,000 |
| Available for Sale | 98,000 | 28,000 | | | | 126,000 |
| Inventory 12/31 | 40,000 | 15,000 | | | | 55,000 |
| Cost of Goods Sold | 58,000 | 13,000 | | | | 71,000 |
| Other Expenses | 10,000 | 16,000 | | | | 26,000 |
| Total Cost and Expense | 68,000 | 29,000 | | | | 97,000 |
| Net Income | 52,800 | 13,000 | | | | 55,000 |
| Noncontrolling Interest | | | | | 1,300 * | (1,300) |
| Net Income to Retained Earnings | 52,800 | 13,000 | 10,800 | | 1,300 | 53,700 |
| **Retained Earnings Statement** | | | | | | |
| Retained Earnings 1/1 | | | | | | |
| Perez Company | 50,000 | | | (1) 16,200 | | 66,200 |
| Sanchez Company | | 30,000 | (4) 30,000 | | | |
| Net Income from above | 52,800 | 13,000 | 10,800 | | 1,300 | 53,700 |
| Dividends Declared | | | | | | |
| Perez Company | (10,000) | | | | | (10,000) |
| Sanchez Company | | (12,000) | | (3) 10,800 | (1,200) | |
| Retained Earnings 12/31 | 92,800 | 31,000 | 40,800 | 27,000 | 100 | 109,900 |

* ($13,000 × .10) = $1,300

**Problem 4-5 (continued)**

| | Perez Company | Sanchez Company | Eliminating Entries Dr. | Eliminating Entries Cr. | Noncontrol. Interest | Consolidated Balance |
|---|---|---|---|---|---|---|
| **Balance Sheet** | | | | | | |
| Cash | 13,000 | 14,000 | | | | 27,000 |
| Accounts Receivable | 22,000 | 36,000 | | | | 58,000 |
| Inventory 12/31 | 40,000 | 15,000 | | | | 55,000 |
| Advance to Sanchez | 8,000 | | | (2) 8,000 | | |
| Investment in Sanchez | 85,000 | | (1) 16,200 | (4) 101,200 | | |
| Difference b/w Implied & Book Value | | | (4) 12,444 | (5) 12,444 | | |
| Plant and Equipment | 50,000 | 44,000 | | | | 94,000 |
| Land | 17,800 | 6,000 | | | | 23,800 |
| Goodwill | | | (5) 12,444 | | | 12,444 |
| Total | 235,800 | 115,000 | | | | 270,244 |
| | | | | | | |
| Accounts Payable | 6,000 | 6,000 | | | | 12,000 |
| Other Liabilities | 37,000 | | | | | 37,000 |
| Advances from Perez | | 8,000 | (2) 8,000 | | | |
| Common Stock: | | | | | | |
| Perez Company | 100,000 | | | | | 100,000 |
| Sanchez Company | | 70,000 | (4) 70,000 | | | |
| Retained Earnings from above | 92,800 | 31,000 | 40,800 | 27,000 | 100 | 109,900 |
| Noncontrolling Interest 1/1 | | | | (4) 11,244 | ** 11,244 | |
| Noncontrolling Interest 12/31 | | | | | 11,344 | 11,344 |
| | 235,800 | 115,000 | 159,888 | 159,888 | | 270,244 |

** $9,444 + [($30,000 – $12,000) x .10] = $11,244

(1) To establish reciprocity/convert to the equity method
(2) To eliminate intercompany advances
(3) To eliminate intercompany dividends
(4) To eliminate investment in Sanchez Company and establish noncontrolling interest account
(5) To allocate the difference between implied and book value

Computation and Allocation of Difference between Implied and Book Value Acquired

| | Parent Share | Non-Controlling Share | Entire Value |
|---|---|---|---|
| Purchase price and implied value | **85,000** | **9,444** | 94,444 * |
| Less: Book value of equity acquired: | 73,800 | 8,200 | **82,000** |
| Difference between implied and book value | 11,200 | 1,244 | **12,444** |
| Goodwill | (11,200) | (1,244) | **(12,444)** |
| Balance | - 0 - | - 0 - | - 0 - |

*85,000/.90

**Problem 4-6**

**Part A –** Plank Company uses the equity method. If the equity method is used, Plank Company recognizes investment income from the investment based on the percentage owned times the investee net income.

**Part B**

Computation and Allocation of Difference between Implied and Book Value Acquired

| | Parent Share | Non-Controlling Share | Entire Value |
|---|---|---|---|
| Purchase price and implied value | **53,000** | **13,250** | 66,250 * |
| Less: Book value of equity acquired: | 51,200 | 12,800 | **64,000** |
| Difference between implied and book value | 1,800 | 450 | **2,250** |
| Undervalued Land | (1,800) | (450) | **(2,250)** |
| Balance | - 0 - | - 0 - | - 0 - |

* $53,000/.80

Journal entries for the worksheet on the following page

(1) To eliminate intercompany receivables and payables
(2) To eliminate intercompany dividends and equity in subsidiary income
(3) To eliminate investment in Scoba Company and establish noncontrolling interest account
(4) To allocate the difference between implied and book value

* $13,250 + [($15,000 – $4,000) x .20) = $15,450

**Problem 4-6 (continued)**

Plank Company and Subsidiary
Consolidated Statements Workpaper

**Workpaper - Equity Method**

For the Year Ended December 31, 2013

| | Plank Company | Scoba Company | Eliminating Entries Dr. | Eliminating Entries Cr. | Noncontrolling Interest | Consolidated Balance |
|---|---|---|---|---|---|---|
| **Income Statement** | | | | | | |
| Sales | 105,000 | 50,000 | | | | 155,000 |
| Equity in Subsidiary Income | 14,400 | | (2) 14,400 | | | |
| Total Revenue | 119,400 | 50,000 | | | | 155,000 |
| Cost of Goods Sold | 85,400 | 20,000 | | | | 105,400 |
| Other Expenses | 10,000 | 12,000 | | | | 22,000 |
| Total Cost and Expense | 95,400 | 32,000 | | | | 127,400 |
| Net Income | 24,000 | 18,000 | | | | 27,600 |
| Noncontrolling Interest ($18,000 × .2) | | | | | 3,600 | (3,600) |
| Net Income to Retained Earnings | 24,000 | 18,000 | 14,400 | | 3,600 | 24,000 |
| **Retained Earnings Statement** | | | | | | |
| Retained Earnings 1/1 | | | | | | |
| Plank Company | 48,800 | | | | | 48,800 |
| Scoba Company | | 15,000 | (3) 15,000 | | | |
| Net Income from above | 24,000 | 18,000 | 14,400 | | 3,600 | 24,000 |
| Dividends Declared | | | | | | |
| Plank Company | (10,000) | | | | | (10,000) |
| Scoba Company | | (8,000) | | (2) 6,400 | (1,600) | |
| Retained Earnings 12/31 | 62,800 | 25,000 | 29,400 | 6,400 | 2,000 | 62,800 |
| **Balance Sheet** | | | | | | |
| Cash | 42,000 | 22,000 | | | | 64,000 |
| Accounts Receivable | 21,000 | 17,000 | | (1) 3,000 | | 35,000 |
| Inventory 12/31 | 15,000 | 8,000 | | | | 23,000 |
| Investment in Scoba | 69,800 | | | (2) 8,000 | | |
| ($61,000 +$14,000 - $6,400) | | | | (3) 61,800 | | |
| Difference b/w Implied & Bk Value | | | (3) 2,250 | (4) 2,250 | | |
| Land | 52,000 | 48,000 | (4) 2,250 | | | 102,250 |
| Total assets | 199,800 | 95,000 | | | | 224,250 |
| Accounts Payable | 12,000 | 6,000 | (1) 3,000 | | | 15,000 |
| Other Liabilities | 5,000 | 4,000 | | | | 9,000 |
| Common Stock | | | | | | |
| Plank Company | 100,000 | | | | | 100,000 |
| Scoba Company | | 55,000 | (3) 55,000 | | | |
| Other Contributed Capital | | | | | | |
| Plank Company | 20,000 | | | | | 20,000 |
| Scoba Company | | 5,000 | (3) 5,000 | | | |
| Retained Earnings from above | 62,800 | 25,000 | 29,400 | 6,400 | 2,000 | 62,800 |
| Noncontrolling Interest 1/1 | | | | (3) 15,450 | * 15,450 | |
| Noncontrolling Interest 12/31 | | | | | 17,450 | 17,450 |
| Total liabilities and equity | 199,800 | 95,000 | 96,900 | 96,900 | | 224,250 |

## Problem 4-7

Price Company and Subsidiary
Consolidated Statements Workpaper

**Workpaper - Cost Method** For the Year Ended December 31, 2013

| | Price | Score | Eliminating Entries | | Noncontrolling | Consolidated |
|---|---|---|---|---|---|---|
| | Company | Company | Dr. | Cr. | Interest | Balance |
| **Income Statement** | | | | | | |
| Sales | 1,420,000 | 500,000 | | | | 1,920,000 |
| Dividend and Interest Income | 52,500 | | (3) 45,000 | | | |
| | | | (4) 7,500 | | | |
| Total Revenue | 1,472,500 | 500,000 | | | | 1,920,000 |
| Cost of Goods Sold | 822,000 | 242,000 | | | | 1,064,000 |
| Other Expenses | 250,500 | 124,000 | | (4) 7,500 | | 367,000 |
| Total Cost and Expense | 1,072,500 | 366,000 | | | | 1,431,000 |
| Net Income | 400,000 | 134,000 | | | | 489,000 |
| Noncontrolling Interest | | | | | 13,400 * | (13,400) |
| Net Income to Retained Earnings | 400,000 | 134,000 | 52,500 | 7,500 | 13,400 | 475,600 |
| | | | | | | |
| **Retained Earnings Statement** | | | | | | |
| Retained Earnings 1/1 | | | | | | |
| Price Company | 687,000 | | | (1) 108,000 | | 795,000 |
| Score Company | | 210,000 | (5) 210,000 | | | |
| Net Income from above | 400,000 | 134,000 | 52,500 | 7,500 | 13,400 | 475,600 |
| Dividends Declared | | | | | | |
| Price Company | (70,000 ) | | | | | (70,000) |
| Score Company | | (50,000 ) | | (3) 45,000 | (5,000) | |
| Retained Earnings 12/31 | 1,017,000 | 294,000 | 262,500 | 160,500 | 8,400 | 1,200,600 |

* $134,000 × .10 = $13,400.

## Problem 4-7 (continued)

| | Price | Score | Eliminating Entries | | Noncontrolling | Consolidated |
|---|---|---|---|---|---|---|
| | Company | Company | Dr. | Cr. | Interest | Balance |
| **Balance Sheet** | | | | | | |
| Cash | 109,000 | 78,000 | | | | 187,000 |
| Accounts Receivable | 166,000 | 94,000 | | | | 260,000 |
| Note Receivable | 75,000 | | | (2) 75,000 | | |
| Inventory 12/31 | 309,000 | 158,000 | | | | 467,000 |
| Investment in Score Company | 450,000 | | (1) 108,000 | (5) 558,000 | | |
| Difference b/w Implied & Book Value | | | (5) 50,000 | (6) 50,000 | | |
| Plant and Equipment | 940,000 | 420,000 | | | | 1,360,000 |
| Land | 160,000 | 70,000 | | | | 230,000 |
| Goodwill | | | (6) 50,000 | | | 50,000 |
| Total | 2,209,000 | 820,000 | | | | 2,554,000 |
| | | | | | | |
| Accounts Payable | 132,000 | 46,000 | | | | 178,000 |
| Notes Payable | 300,000 | 120,000 | (2) 75,000 | | | 345,000 |
| Common Stock: | | | | | | |
| Price Company | 500,000 | | | | | 500,000 |
| Score Company | | 200,000 | (5) 200,000 | | | |
| Other Contributed Capital | | | | | | |
| Price Company | 260,000 | | | | | 260,000 |
| Score Company | | 160,000 | (5) 160,000 | | | |
| Retained Earnings from above | 1,017,000 | 294,000 | 262,500 | 160,500 | 8,400 | 1,200,600 |
| Noncontrolling Interest 1/1 | | | | (5) 62,000 | ** 62,000 | |
| Noncontrolling Interest 12/31 | | | | | 70,400 | 70,400 |
| | 2,209,000 | 820,000 | 905,500 | 905,500 | | 2,554,000 |

** $50,000 + [($210,000 – $90,000) x .10] = $62,000

(1) To establish reciprocity/convert to the equity method ($210,000 - $90,000) × .90
(2) To eliminate intercompany receivables and payables
(3) To eliminate intercompany dividends
(4) To eliminate intercompany interest expense and income
(5) To eliminate investment in Score Company and create noncontrolling interest account
(6) To allocate the difference between implied and book value

**Problem 4-7 (continued)**

Computation and Allocation of Difference between Implied and Book Value Acquired

| | Parent | Non- | Entire |
|---|---|---|---|
| | Share | Controlling | Value |
| | | Share | |
| Purchase price and implied value | **450,000** | **50,000** | 500,000 * |
| Less: Book value of equity acquired: | 405,000 | 45,000 | **450,000** |
| Difference between implied and book value | 45,000 | 5,000 | **50,000** |
| Goodwill | (45,000) | (5,000) | **(50,000)** |
| Balance | - 0 - | - 0 - | - 0 - |

*$450,000/.90

**Problem 4-8**

**Workpaper - Cost Method**

**Part A – 2010**

Parker Company and Subsidiary
Consolidated Statements Workpaper
For the Year Ended December 31, 2010

| | Parker | Sid | Eliminating Entries | | Noncontrolling | Consolidated |
|---|---|---|---|---|---|---|
| | Company | Company | Dr. | Cr. | Interest | Balance |
| **Income Statement** | | | | | | |
| Sales | 260,000 | 80,000 | | | | 340,000 |
| Dividend Income | 19,000 | | (1) 19,000 | | | |
| Total Revenue | 279,000 | 80,000 | | | | 340,000 |
| Cost of Goods Sold | 130,000 | 40,000 | | | | 170,000 |
| Other Expenses | 20,000 | 14,000 | | | | 34,000 |
| Total Cost and Expense | 150,000 | 54,000 | | | | 204,000 |
| Net Income | 129,000 | 26,000 | | | | 136,000 |
| Noncontrolling Interest | | | | | 1,300 | (1,300) |
| Net Income to Retained Earnings | 129,000 | 26,000 | 19,000 | | 1,300 | 134,700 |
| **Retained Earnings Statement** | | | | | | |
| Retained Earnings 1/1 | | | | | | |
| Parker Company | 40,000 | | | | | 40,000 |
| Sid Company | | 23,000 | (2) 23,000 | | | |
| Net Income from above | 129,000 | 26,000 | 19,000 | | 1,300 | 134,700 |
| Dividends Declared | | | | | | |
| Parker Company | (20,000) | | | | | (20,000) |
| Sid Company | | (20,000) | | (1) 19,000 | (1,000) | |
| Retained Earnings 12/31 | 149,000 | 29,000 | 42,000 | 19,000 | 300 | 154,700 |
| **Balance Sheet** | | | | | | |
| Cash | 62,000 | 30,000 | | | | 92,000 |
| Accounts Receivable | 32,000 | 29,000 | | | | 61,000 |
| Inventory 12/31 | 30,000 | 16,000 | | | | 46,000 |
| Investment in Sid Company | 160,000 | | | (2) 160,000 | | |
| Difference b/w Implied & Book Value | | | (2) 15,421 | (3) 15,421 | | |
| Plant and Equipment | 105,000 | 82,000 | | | | 187,000 |
| Land | 29,000 | 34,000 | | | | 63,000 |
| Goodwill | | | (3) 15,421 | | | 15,421 |
| Total | 418,000 | 191,000 | | | | 464,421 |
| Accounts Payable | 19,000 | 12,000 | | | | 31,000 |
| Other Liabilities | 10,000 | 20,000 | | | | 30,000 |
| Common Stock | | | | | | |
| Parker Company | 180,000 | | | | | 180,000 |
| Sid Company | | 120,000 | (2) 120,000 | | | |
| Other Contributed Capital | | | | | | |
| Parker Company | 60,000 | | | | | 60,000 |
| Sid Company | | 10,000 | (2) 10,000 | | | |
| Retained Earnings from above | 149,000 | 29,000 | 42,000 | 19,000 | 300 | 154,700 |
| Noncontrolling Interest 1/1 | | | | (2) 8,421 | 8,421 | |
| Noncontrolling Interest 12/31 | | | | | 8,721 | 8,721 |
| | 418,000 | 191,000 | 202,842 | 202,842 | | 464,421 |

**Problem 4-8 (continued)**

(1) To eliminate intercompany dividends
(2) To eliminate investment in Sid Company and create noncontrolling interest account
(3) To allocate the difference between implied and book value

Computation and Allocation of Difference between Implied and Book Value Acquired

| | Parent Share | Non-Controlling Share | Entire Value |
|---|---|---|---|
| Purchase price and implied value | **160,000** | **8,421** | 168,421 * |
| Less: Book value of equity acquired: | 145,350 | 7,650 | **153,000** |
| Difference between implied and book value | 14,650 | 771 | **15,421** |
| Goodwill | (14,650) | (771) | **(15,421)** |
| Balance | - 0 - | - 0 - | - 0 - |

*$160,000/.95

**Part B – 2011**

**Workpaper –Cost Method**

Parker Company and Subsidiary
Consolidated Statements Workpaper
For the Year Ended December 31, 2011

| | Parker Company | Sid Company | Eliminating Entries Dr. | Eliminating Entries Cr. | Noncontrolling Interest | Consolidated Balance |
|---|---|---|---|---|---|---|
| **Income Statement** | | | | | | |
| Sales | 240,000 | 120,000 | | | | 360,000 |
| Dividend Income | 19,000 | | (2) 19,000 | | | |
| Total Revenue | 259,000 | 120,000 | | | | 360,000 |
| Cost of Goods Sold | 155,000 | 52,000 | | | | 207,000 |
| Other Expenses | 30,000 | 18,000 | | | | 48,000 |
| Total Cost and Expense | 185,000 | 70,000 | | | | 255,000 |
| Net Income | 74,000 | 50,000 | | | | 105,000 |
| Noncontrolling Interest | | | | | 2,500 * | (2,500) |
| Net Income to Retained Earnings | 74,000 | 50,000 | 19,000 | | 2,500 | 102,500 |
| **Retained Earnings Statement** | | | | | | |
| Retained Earnings 1/1 | | | | | | |
| Parker Company | 149,000 | | | (1) 5,700 | | 154,700 |
| Sid Company | | 29,000 | (3) 29,000 | | | |
| Net Income from above | 74,000 | 50,000 | 19,000 | | 2,500 | 102,500 |
| Dividends Declared | | | | | | |
| Parker Company | (20,000) | | | | | (20,000) |
| Sid Company | | (20,000) | | (2) 19,000 | (1,000) | |
| Retained Earnings 12/31 | 203,000 | 59,000 | 48,000 | 24,700 | 1,500 | 237,200 |

* ($50,000 × .05) = $2,500.

**Problem 4-8 (continued)**

| | Parker Company | Sid Company | Eliminating Entries | | Noncontrolling Interest | Consolidated Balance |
|---|---|---|---|---|---|---|
| | | | Dr. | Cr. | | |
| Balance Sheet | | | | | | |
| Cash | 67,000 | 16,000 | | | | 83,000 |
| Accounts Receivable | 56,000 | 32,000 | | | | 88,000 |
| Inventory 12/31 | 38,000 | 48,500 | | | | 86,500 |
| Investment in Sid | 160,000 | | (1) 5,700 | (3) 165,700 | | |
| Difference b/w Implied & Book Value | | | (3) 15,421 | (4) 15,421 | | |
| Plant and Equipment | 124,000 | 80,000 | | | | 204,000 |
| Land | 29,000 | 34,000 | | | | 63,000 |
| Goodwill | | | (4) 15,421 | | | 15,421 |
| Total | 474,000 | 210,500 | | | | 539,921 |
| | | | | | | |
| Accounts Payable | 16,000 | 7,000 | | | | 23,000 |
| Other Liabilities | 15,000 | 14,500 | | | | 29,500 |
| Common Stock: | | | | | | |
| Parker Company | 180,000 | | | | | 180,000 |
| Sid Company | | 120,000 | (3) 120,000 | | | |
| Other Contributed Capital | | | | | | |
| Parker Company | 60,000 | | | | | 60,000 |
| Sid Company | | 10,000 | (3) 10,000 | | | |
| Retained Earnings from above | 203,000 | 59,000 | 48,000 | 24,700 | 1,500 | 237,200 |
| Noncontrolling Interest 1/1 | | | | (3) 8,721 | ** 8,721 | |
| Noncontrolling Interest 12/31 | | | | | 10,221 | 10,221 |
| | 474,000 | 210,500 | 214,542 | 214,542 | | 539,921 |

** $8,421 + [($29,000 – $23,000) x .05) = $8,721

(1) To establish reciprocity/convert to the equity method ($29,000 – $23,000 ) × .95 = $5,700
(2) To eliminate intercompany dividends
(3) To eliminate investment in Sid Company and create noncontrolling interest account
(4) To allocate the difference between implied and book value

**Problem 4-9**

**Workpaper - Cost Method**

Pledge Company and Subsidiary
Consolidated Statements Workpaper
For the Year Ended December 31, 2012

| | Pledge Company | Stom Company | Eliminating Entries Dr. | Eliminating Entries Cr. | Noncontrolling Interest | Consolidated Balance |
|---|---|---|---|---|---|---|
| **Income Statement** | | | | | | |
| Sales | 880,000 | 340,000 | | | | 1,220,000 |
| Dividend and Interest Income | 30,600 | 3,000 | (3) 24,000 | | | 3,000 |
| | | | (4) 6,600 | | | |
| Total Revenue | 910,600 | 343,000 | | | | 1,223,000 |
| Cost of Goods Sold | 460,000 | 185,000 | | | | 645,000 |
| Other Expenses | 225,000 | 65,000 | | (4) 6,600 | | 283,400 |
| Total Cost and Expense | 685,000 | 250,000 | | | | 928,400 |
| Net Income | 225,600 | 93,000 | | | | 294,600 |
| Noncontrolling Interest | | | | | 18,600 * | (18,600) |
| Net Income to Retained Earnings | 225,600 | 93,000 | 30,600 | 6,600 | 18,600 | 276,000 |
| **Retained Earnings Statement** | | | | | | |
| Retained Earnings 1/1 | | | | | | |
| Pledge Company | 422,000 | | | (1) 128,000 | | 550,000 |
| Stom Company | | 320,000 | (6) 320,000 | | | |
| Net Income from above | 225,600 | 93,000 | 30,600 | 6,600 | 18,600 | 276,000 |
| Dividends Declared | | | | | | |
| Pledge Company | (50,000) | | | | | (50,000) |
| Stom Company | | (30,000) | | (3) 24,000 | (6,000) | |
| Retained Earnings 12/31 | 597,600 | 383,000 | 350,600 | 158,600 | 12,600 | 776,000 |
| **Balance Sheet** | | | | | | |
| Cash and Marketable Securities | 184,600 | 72,000 | | | | 256,600 |
| Accounts Receivable | 182,000 | 180,000 | | (2) 55,000 | | |
| | | | | (5) 6,600 | | 300,400 |
| Inventory 12/31 | 214,000 | 212,000 | | | | 426,000 |
| Investment in Stom | 300,000 | | (1) 128,000 | (6) 428,000 | | |
| Difference b/w Implied & Bk Value | | | (6) 55,000 | (7) 55,000 | | |
| Plant and Equipment | 309,000 | 301,000 | | | | 610,000 |
| Land | 85,000 | 75,000 | (7) 55,000 | | | 215,000 |
| Total | 1,274,600 | 840,000 | | | | 1,808,000 |
| Accounts Payable | 96,000 | 79,000 | | | | 175,000 |
| Accrued Expenses | 31,000 | 18,000 | (5) 6,600 | | | 42,400 |
| Notes Payable | 100,000 | 200,000 | (2) 55,000 | | | 245,000 |
| Common Stock: | | | | | | |
| Pledge Company | 300,000 | | | | | 300,000 |
| Stom Company | | 100,000 | (6) 100,000 | | | |
| Other Contributed Capital | | | | | | |
| Pledge Company | 150,000 | | | | | 150,000 |
| Stom Company | | 80,000 | (6) 80,000 | | | |
| Treasury Stock | | (20,000) | | (6) 20,000 | | |
| Retained Earnings from above | 597,600 | 383,000 | 350,600 | 158,600 | 12,600 | 776,000 |
| Noncontrolling Interest 1/1 | | | | (6) 107,000 | ** 107,000 | |
| Noncontrolling Interest 12/31 | | | | | 119,600 | 119,600 |
| Total | 1,274,600 | 840,000 | 830,200 | 830,200 | | 1808,000 |

## Problem 4-9 (continued)

* ($93,000 × .20) = $18,600.
** $75,000 + [($320,000 – $160,000) x .20) = $107,000

(1) To establish reciprocity/convert to the equity method ($320,000 - $160,000) × .80
(2) To eliminate intercompany note receivables and payables
(3) To eliminate intercompany dividends
(4) To eliminate intercompany interest expense and income
(5) To eliminate intercompany interest receivables and payables
(6) To eliminate investment in Stom Company and create noncontrolling interest account
(7) To allocate the difference between implied and book value

Computation and Allocation of Difference between Implied and Book Value Acquired

| | Parent Share | Non-Controlling Share | Entire Value |
|---|---|---|---|
| Purchase price and implied value | **300,000** | **75,000** | 375,000 * |
| Less: Book value of equity acquired: | 256,000 | 64,000 | **320,000** |
| Difference between implied and book value | 44,000 | 11,000 | **55,000** |
| Undervalued land | (44,000) | (11,000) | **(55,000)** |
| Balance | - 0 - | - 0 - | - 0 - |

*$300,000/.80

## Problem 4-10

## Workpaper - Partial Equity Method

Poco Company and Subsidiary
Consolidated Statements Workpaper
For the Year Ended December 31, 2010

| | Poco Company | Solo Company | Eliminating Entries Dr. | Eliminating Entries Cr. | Noncontrolling Interest | Consolidated Balance |
|---|---|---|---|---|---|---|
| **Income Statement** | | | | | | |
| Sales | 760,000 | 410,000 | | | | 1,170,000 |
| Equity in Subsidiary Income | 164,000 | | (1) 164,000 | | | |
| Total Revenue | 924,000 | 410,000 | | | | 1,170,000 |
| Cost of Goods Sold | 410,000 | 125,000 | | | | 535,000 |
| Other Expenses | 100,000 | 80,000 | | | | 180,000 |
| Total Cost and Expense | 510,000 | 205,000 | | | | 715,000 |
| Net Income | 414,000 | 205,000 | | | | 455,000 |
| Noncontrolling Interest | | | | | 41,000 * | (41,000) |
| Net Income to Retained Earnings | 414,000 | 205,000 | 164,000 | | 41,000 | 414,000 |
| **Retained Earnings Statement** | | | | | | |
| Retained Earnings 1/1 | | | | | | |
| Poco Company | 50,000 | | | | | 50,000 |
| Solo Company | | 60,000 | (2) 60,000 | | | |
| Net Income from above | 414,000 | 205,000 | 164,000 | | 41,000 | 414,000 |
| Dividends Declared | | | | | | |
| Poco Company | (30,000) | | | | | (30,000) |
| Solo Company | | (15,000) | | (1) 12,000 | (3,000) | |
| Retained Earnings 12/31 | 434,000 | 250,000 | 224,000 | 12,000 | 38,000 | 434,000 |
| **Balance Sheet** | | | | | | |
| Cash | 161,500 | 125,000 | | | | 286,500 |
| Inventory | 210,000 | 195,000 | | | | 405,000 |
| Investment in Solo | 402,000 | | | (1) 152,000 | | |
| | | | | (2) 250,000 | | |
| Difference b/w Implied & Book Value | | | (2) 67,500 | (3) 67,500 | | |
| Land | 75,000 | 150,000 | | | | 225,000 |
| Goodwill | | | (3) 67,500 | | | 67,500 |
| Total | 848,500 | 470,000 | | | | 984,000 |
| Accounts Payable | 154,500 | 35,000 | | | | 189,500 |
| Common Stock: | | | | | | |
| Poco Company | 200,000 | | | | | 200,000 |
| Solo Company | | 150,000 | (2) 150,000 | | | |
| Other Contributed Capital | | | | | | |
| Poco Company | 60,000 | | | | | 60,000 |
| Solo Company | | 35,000 | (2) 35,000 | | | |
| Retained Earnings from above | 434,000 | 250,000 | 224,000 | 12,000 | 38,000 | 434,000 |
| Noncontrolling Interest 1/1 | | | | (2) 62,500 | 62,500 | |
| Noncontrolling Interest 12/31 | | | | | 100,500 | 100,500 |
| | 848,500 | 470,000 | 544,000 | 544,000 | | 984,000 |

* $205,000 × .20 = $41,000

**Problem 4-10 (continued)**

(1) To eliminate intercompany income and dividends
(2) To eliminate investment in Solo Company and create noncontrolling interest account
(3) To allocate the difference between implied and book value

Computation and Allocation of Difference between Implied and Book Value Acquired

| | Parent Share | Non-Controlling Share | Entire Value |
|---|---|---|---|
| Purchase price and implied value | **250,000** | **62,500** | 312,500 * |
| Less: Book value of equity acquired: | 196,000 | 49,000 | **245,000** |
| Difference between implied and book value | 54,000 | 13,500 | **67,500** |
| Goodwill | (54,000) | (13,500) | **(67,500)** |
| Balance | - 0 - | - 0 - | - 0 - |

*$250,000/.80

**Problem 4-11**

**Workpaper - Equity Method**

Price Company and Subsidiary
Consolidated Statements Workpaper
For the Year Ended December 31, 2013

| | Price Company | Score Company | Eliminating Entries Dr. | Eliminating Entries Cr. | Noncontrolling Interest | Consolidated Balance |
|---|---|---|---|---|---|---|
| **Income Statement** | | | | | | |
| Sales | 1,420,000 | 500,000 | | | | 1,920,000 |
| Equity in Subsidiary Income | 120,600 | | (1) 120,600 | | | |
| Interest Income | 7,500 | | (3) 7,500 | | | |
| Total Revenue | 1,548,100 | 500,000 | | | | 1,920,000 |
| Cost of Goods Sold | 822,000 | 242,000 | | | | 1,064,000 |
| Other Expenses | 250,500 | 124,000 | | (3) 7,500 | | 367,000 |
| Total Cost and Expense | 1,072,500 | 366,000 | | | | 1,431,000 |
| Net Income | 475,600 | 134,000 | | | | 489,000 |
| Noncontrolling Interest | | | | | 13,400 * | (13,400) |
| Net Income to Retained Earnings | 475,600 | 134,000 | 128,100 | 7,500 | 13,400 | 475,600 |
| | | | | | | |
| **Retained Earnings Statement** | | | | | | |
| Retained Earnings 1/1 | | | | | | |
| Price Company | 795,000 | | | | | 795,000 |
| Score Company | | 210,000 | (4) 210,000 | | | |
| Net Income from above | 475,600 | 134,000 | 128,100 | 7,500 | 13,400 | 475,600 |
| Dividends Declared | | | | | | |
| Price Company | (70,000) | | | | | (70,000) |
| Score Company | | (50,000) | | (1) 45,000 | (5,000) | |
| Retained Earnings 12/31 | 1,200,600 | 294,000 | 338,100 | 52,500 | 8,400 | 1,200,600 |

* $134,000 × .10 = $13,400.

| **Problem 4-11 (continued)** | Price Company | Score Company | Eliminating Entries Dr. | Eliminating Entries Cr. | Noncontrolling Interest | Consolidated Balance |
|---|---|---|---|---|---|---|
| **Balance Sheet** | | | | | | |
| Cash | 109,000 | 78,000 | | | | 187,000 |
| Accounts Receivable | 166,000 | 94,000 | | | | 260,000 |
| Note Receivable | 75,000 | | | (2) 75,000 | | |
| Inventory 12/31 | 309,000 | 158,000 | | | | 467,000 |
| Investment in Score | 633,600 | | | (4) 558,000 | | |
| | | | | (1) 75,600 | | |
| Difference b/w Implied & Book Value | | | (4) 50,000 | (5) 50,000 | | |
| Plant and Equipment | 940,000 | 420,000 | | | | 1,360,000 |
| Land | 160,000 | 70,000 | | | | 230,000 |
| Goodwill | | | (5) 50,000 | | | 50,000 |
| Total | 2,392,600 | 820,000 | | | | 2,554,000 |
| | | | | | | |
| Accounts Payable | 132,000 | 46,000 | | | | 178,000 |
| Notes Payable | 300,000 | 120,000 | (2) 75,000 | | | 345,000 |
| Common Stock: | | | | | | |
| Price Company | 500,000 | | | | | 500,000 |
| Score Company | | 200,000 | (4) 200,000 | | | |
| Other Contributed Capital | | | | | | |
| Price Company | 260,000 | | | | | 260,000 |
| Score Company | | 160,000 | (4) 160,000 | | | |
| Retained Earnings from above | 1,200,600 | 294,000 | 338,100 | 52,500 | 8,400 | 1,200,600 |
| Noncontrolling Interest 1/1 | | | | (4) 62,000 | ** 62,000 | |
| Noncontrolling Interest 12/31 | | | | | 70,400 | 70,400 |
| Total | 2,392,600 | 820,000 | 873,100 | 873,100 | | 2,554,000 |

** $50,000 + [($210,000 – $90,000) x .10] = $62,000

(1) To eliminate intercompany income and dividends
(2) To eliminate intercompany receivables and payables
(3) To eliminate intercompany interest expense and income
(4) To eliminate investment in Score company and create noncontrolling interest account
(5) To allocate the difference between implied and book value

Computation and Allocation of Difference between Implied and Book Value Acquired

| | Parent Share | Non-Controlling Share | Entire Value |
|---|---|---|---|
| Purchase price and implied value | **450,000** | **50,000** | 500,000 * |
| Less: Book value of equity acquired: | 405,000 | 45,000 | **450,000** |
| Difference between implied and book value | 45,000 | 5,000 | **50,000** |
| Goodwill | (45,000) | (5,000) | **(50,000)** |
| Balance | - 0 - | - 0 - | - 0 - |

*$450,000/.90

## Problem 4-12

**Part A - 2010**

Parker Company and Subsidiary
Consolidated Statements Workpaper
**Workpaper - Equity Method** For the Year Ended December 31, 2010

| | Parker | Sid | Eliminating Entries | | Noncontrolling | Consolidated |
|---|---|---|---|---|---|---|
| | Company | Company | Dr. | Cr. | Interest | Balance |
| **Income Statement** | | | | | | |
| Sales | 300,000 | 95,000 | | | | 395,000 |
| Equity in Subsidiary Income | 18,000 | | (1) 18,000 | | | |
| Total Revenue | 318,000 | 95,000 | | | | 395,000 |
| Cost of Goods Sold | 150,000 | 60,000 | | | | 210,000 |
| Operating Expenses | 35,000 | 15,000 | | | | 50,000 |
| Total Cost and Expense | 185,000 | 75,000 | | | | 260,000 |
| Net Income | 133,000 | 20,000 | | | | 135,000 |
| Noncontrolling Interest | | | | | 2,000 * | (2,000) |
| Net Income to Retained Earnings | 133,000 | 20,000 | 18,000 | | 2,000 | 133,000 |
| **Retained Earnings Statement** | | | | | | |
| Retained Earnings 1/1 | | | | | | |
| Parker Company | 55,000 | | | | | 55,000 |
| Sid Company | | 25,000 | (2) 25,000 | | | |
| Net Income from above | 133,000 | 20,000 | 18,000 | | 2,000 | 133,000 |
| Dividends Declared | | | | | | |
| Parker Company | (20,000) | | | | | (20,000) |
| Sid Company | | (15,000) | | (1) 13,500 | (1,500) | |
| Retained Earnings 12/31 | 168,000 | 30,000 | 43,000 | 13,500 | 500 | 168,000 |
| **Balance Sheet** | | | | | | |
| Cash | 65,000 | 35,000 | | | | 100,000 |
| Accounts Receivable | 40,000 | 30,000 | | | | 70,000 |
| Inventory 12/31 | 25,000 | 15,000 | | | | 40,000 |
| Investment in Sid Company | 184,500 | | | (1) 4,500<br>(2) 180,000 | | |
| Difference b/w Implied & Book Value | | | (2) 35,000 | (3) 35,000 | | |
| Plant and Equipment | 110,000 | 85,000 | | | | 195,000 |
| Land | 48,500 | 45,000 | (3) 35,000 | | | 128,500 |
| Total | 473,000 | 210,000 | | | | 533,500 |
| Accounts Payable | 20,000 | 15,000 | | | | 35,000 |
| Other Liabilities | 15,000 | 25,000 | | | | 40,000 |
| Common Stock | | | | | | |
| Parker Company | 200,000 | | | | | 200,000 |
| Sid Company | | 120,000 | (2) 120,000 | | | |
| Other Contributed Capital | | | | | | |
| Parker Company | 70,000 | | | | | 70,000 |
| Sid Company | | 20,000 | (2) 20,000 | | | |
| Retained Earnings from above | 168,000 | 30,000 | 43,000 | 13,500 | 500 | 168,000 |
| Noncontrolling Interest 1/1 | | | | (2) 20,000 | 20,000 | |
| Noncontrolling Interest 12/31 | | | | | 20,500 | 20,500 |
| | 473,000 | 210,000 | 253,000 | 253,000 | | 533,500 |

*($20,000 × .10) = $2,000

**Problem 4-12 (continued)**

(1) To eliminate intercompany dividends and income
(2) To eliminate investment in Sid Company and create noncontrolling interest account
(3) To allocate the difference between implied and book value

Computation and Allocation of Difference between Implied and Book Value Acquired

| | Parent Share | Non-Controlling Share | Entire Value |
|---|---|---|---|
| Purchase price and implied value | **180,000** | **20,000** | 200,000 * |
| Less: Book value of equity acquired: | 148,500 | 16,500 | **165,000** |
| Difference between implied and book value | 31,500 | 3,500 | **35,000** |
| Undervalued land | (31,500) | (3,500) | **(35,000)** |
| Balance | - 0 - | - 0 - | - 0 - |

*$180,000/.90

**Problem 4-12 (continued)** Parker Company and Subsidiary
Consolidated Statements Workpaper
**Part B - 2011** For the Year Ended December 31, 2011

| | Parker Company | Sid Company | Eliminating Entries Dr. | Eliminating Entries Cr. | Noncontrolling Interest | Consolidated Balance |
|---|---|---|---|---|---|---|
| **Income Statement** | | | | | | |
| Sales | 260,000 | 110,000 | | | | 370,000 |
| Equity in Subsidiary Income | 22,500 | | (1) 22,500 | | | |
| Total Revenue | 282,500 | 110,000 | | | | 370,000 |
| Cost of Goods Sold | 160,000 | 65,000 | | | | 225,000 |
| Operating Expenses | 35,000 | 20,000 | | | | 55,000 |
| Total Cost and Expense | 195,000 | 85,000 | | | | 280,000 |
| Net Income | 87,500 | 25,000 | | | | 90,000 |
| Noncontrolling Interest | | | | | 2,500 * | (2,500) |
| Net Income to Retained Earnings | 87,500 | 25,000 | 22,500 | | 2,500 | 87,500 |
| **Retained Earnings Statement** | | | | | | |
| Retained Earnings 1/1 | | | | | | |
| Parker Company | 168,000 | | | | | 168,000 |
| Sid Company | | 30,000 | (2) 30,000 | | | |
| Net Income from above | 87,500 | 25,000 | 22,500 | | 2,500 | 87,500 |
| Dividends Declared | | | | | | |
| Parker Company | (20,000) | | | | | (20,000) |
| Sid Company | | (15,000) | | (1) 13,500 | (1,500) | |
| Retained Earnings 12/31 | 235,500 | 40,000 | 52,500 | 13,500 | 1,000 | 235,500 |
| **Balance Sheet** | | | | | | |
| Cash | 70,000 | 20,000 | | | | 90,000 |
| Accounts Receivable | 60,000 | 35,000 | | | | 95,000 |
| Inventory 12/31 | 40,000 | 30,000 | | | | 70,000 |
| Investment in Sid Company | 193,500 | | | (1) 9,000 | | |
| | | | | (2) 184,500 | | |
| Difference b/w Implied & Book Value | | | (2) 35,000 | (3) 35,000 | | |
| Plant and Equipment | 125,000 | 90,000 | | | | 215,000 |
| Land | 48,500 | 45,000 | (3) 35,000 | | | 128,500 |
| Total | 537,000 | 220,000 | | | | 598,500 |
| Accounts Payable | 16,500 | 16,000 | | | | 32,500 |
| Other Liabilities | 15,000 | 24,000 | | | | 39,000 |
| Common Stock: | | | | | | |
| Parker Company | 200,000 | | | | | 200,000 |
| Sid Company | | 120,000 | (2) 120,000 | | | |
| Other Contributed Capital | | | | | | |
| Parker Company | 70,000 | | | | | 70,000 |
| Sid Company | | 20,000 | (2) 20,000 | | | |
| Retained Earnings from above | 235,500 | 40,000 | 52,500 | 13,500 | 1,000 | 235,500 |
| Noncontrolling Interest 1/1 | | | | (2) 20,500 | ** 20,500 | |
| Noncontrolling Interest 12/31 | | | | | 21,500 | 21,500 |
| | 537,000 | 220,000 | 262,500 | 262,500 | | 598,500 |

* ($25,000 × .10) = $2,500; ** $20,000 + [($30,000 – $25,000) x .10] = $20,500

(1) To eliminate intercompany dividends and income

(2) To eliminate investment in Sid company and create noncontrolling interest account

(3) To allocate the difference between implied and book value

## Problem 4-13

## Workpaper - Equity Method

Pledge Company and Subsidiary
Consolidated Statements Workpaper
For the Year Ended December 31, 2012

| | Pledge | Stom | Eliminating Entries | | Noncontroll- | Consolidated |
|---|---|---|---|---|---|---|
| **Income Statement** | Company | Company | Dr. | Cr. | ing Interest | Balance |
| Sales | 880,000 | 340,000 | | | | 1,220,000 |
| Equity in Subsidiary Income | 74,400 | | (1) 74,400 | | | |
| Interest Income | 6,600 | 3,000 | (3) 6,600 | | | 3,000 |
| Total Revenue | 961,000 | 343,000 | | | | 1,223,000 |
| Cost of Goods Sold | 460,000 | 185,000 | | | | 645,000 |
| Operating Expenses | 225,000 | 65,000 | | (3) 6,600 | | 283,400 |
| Total Cost and Expense | 685,000 | 250,000 | | | | 928,400 |
| Net Income | 276,000 | 93,000 | | | | 294,600 |
| Noncontrolling Interest | | | | | 18,600 * | (18,600) |
| Net Income to Retained Earnings | 276,000 | 93,000 | 81,000 | 6,600 | 18,600 | 276,000 |
| **Retained Earnings Statement** | | | | | | |
| Retained Earnings 1/1 | | | | | | |
| Pledge Company | 550,000 | | | | | 550,000 |
| Stom Company | | 320,000 | (5) 320,000 | | | |
| Net Income from above | 276,000 | 93,000 | 81,000 | 6,600 | 18,600 | 276,000 |
| Dividends Declared | | | | | | |
| Pledge Company | (50,000) | | | | | (50,000) |
| Stom Company | | (30,000) | | (1) 24,000 | (6,000) | |
| Retained Earnings 12/31 | 776,000 | 383,000 | 401,000 | 30,600 | 12,600 | 776,000 |
| **Balance Sheet** | | | | | | |
| Cash and Marketable Securities | 184,600 | 72,000 | | | | 256,600 |
| Accounts Receivable | 182,000 | 180,000 | | (2) 55,000 | | |
| | | | | (4) 6,600 | | 300,400 |
| Inventory 12/31 | 214,000 | 212,000 | | | | 426,000 |
| Investment in Stom | 478,400 | | | (1) 50,400 | | |
| | | | | (5) 428,000 | | |
| Difference b/w Implied & Book Value | | | (5) 55,000 | (6) 55,000 | | |
| Plant and Equipment | 309,000 | 301,000 | | | | 610,000 |
| Land | 85,000 | 75,000 | (6) 55,000 | | | 215,000 |
| Total | 1,453,000 | 840,000 | | | | 1,808,000 |
| Accounts Payable | 96,000 | 79,000 | | | | 175,000 |
| Accrued Expenses | 31,000 | 18,000 | (4) 6,600 | | | 42,400 |
| Notes Payable | 100,000 | 200,000 | (2) 55,000 | | | 245,000 |
| Common Stock: | | | | | | |
| Pledge Company | 300,000 | | | | | 300,000 |
| Stom Company | | 100,000 | (5) 100,000 | | | |
| Other Contributed Capital | | | | | | |
| Pledge Company | 150,000 | | | | | 150,000 |
| Stom Company | | 80,000 | (5) 80,000 | | | |
| Treasury Stock | | (20,000) | | (5) 20,000 | | |
| Retained Earnings from above | 776,000 | 383,000 | 401,000 | 30,600 | 12,600 | 776,000 |
| Noncontrolling Interest 1/1 | | | | (5) 107,000 | ** 107,000 | |
| Noncontrolling Interest 12/31 | | | | | 119,600 | 119,600 |
| Total | 1,453,000 | 840,000 | 752,600 | 752,600 | | 1,808,000 |

**Problem 4-13 (continued)**

* $93,000 × .20 = $18,600.
** $75,000 + [($320,000 – $160,000) x .20) = $107,000

(1) To eliminate intercompany dividends and income
(2) To eliminate intercompany note receivables and payables
(3) To eliminate intercompany interest expense and income
(4) To eliminate intercompany interest receivables and payables
(5) To eliminate investment in Stom company and create noncontrolling interest account
(6) To allocate the difference between Implied and Book Value

Computation and Allocation of Difference between Implied and Book Value Acquired

| | Parent Share | Non-Controlling Share | Entire Value |
|---|---|---|---|
| Purchase price and implied value | **300,000** | **75,000** | 375,000 * |
| Less: Book value of equity acquired: | 256,000 | 64,000 | **320,000** |
| Difference between implied and book value | 44,000 | 11,000 | **55,000** |
| Undervalued land | (44,000) | (11,000) | **(55,000)** |
| Balance | - 0 - | - 0 - | - 0 - |

*$300,000/.80

**Problem 4-14**

**Workpaper - Interim basis, Cost Method**

Punca Company and Subsidiary
Consolidated Statements Workpaper
For the Year Ended December 31, 2010

| | Punca Company | Surrano Company | Eliminating Entries Dr. | Eliminating Entries Cr. | Noncontrolling Interest | Consolidated Balance |
|---|---|---|---|---|---|---|
| **Income Statement** | | | | | | |
| Sales | 2,100,000 | 1,300,000 | | | | 3,400,000 |
| Dividend Income | 42,500 | 6,000 | (1) 42,500 | | | 6,000 |
| Total Revenue | 2,142,500 | 1,306,000 | | | | 3,406,000 |
| Cost of Goods Sold | 1,540,000 | 759,000 | | | | 2,299,000 |
| Other Expenses | 415,000 | 250,000 | | | | 665,000 |
| Total Cost and Expense | 1,955,000 | 1,009,000 | | | | 2,964,000 |
| Net Income | 187,500 | 297,000 | | | | 442,000 |
| Net Income Purchased | | | (3) 148,500 | | | (148,500) |
| Noncontrolling Interest* | | | | | 22,275 | (22,275) |
| Net Income to Retained Earnings | 187,500 | 297,000 | 191,000 | | 22,275 | 271,225 |
| **Retained Earnings Statement** | | | | | | |
| Retained Earnings 1/1 | | | | | | |
| Punca Company | 355,000 | | | | | 355,000 |
| Surrano Company | | 241,000 | (3) 241,000 | | | |
| Net Income from above | 187,500 | 297,000 | 191,000 | | 22,275 | 271,225 |
| Dividends Declared | | | | | | |
| Punca Company | 0 | | | | | |
| Surrano Company | | (50,000) | | (1) 42,500 | (7,500) | |
| Retained Earnings 12/31 | 542,500 | 488,000 | 432,000 | 42,500 | 14,775 | 626,225 |
| **Balance Sheet** | | | | | | |
| Current Assets | 150,000 | 180,000 | | (2) 42,500 | | 287,500 |
| Investment in Surrano | 590,000 | | | (3) 590,000 | | |
| Difference b/w Implied & Book Value | | | (3) 62,618 | (4) 62,618 | | |
| Plant and Equipment | 1,250,000 | 750,000 | (4) 62,618 | | | 2,062,618 |
| Total | 1,990,000 | 930,000 | | | | 2,350,118 |
| Accounts and Notes Payable | 277,500 | 150,000 | | | | 427,500 |
| Dividends Payable | | 50,000 | (2) 42,500 | | | 7,500 |
| Common Stock: | | | | | | |
| Punca Company | 270,000 | | | | | 270,000 |
| Surrano Company | | 40,000 | (3) 40,000 | | | |
| Other Contributed Capital | | | | | | |
| Punca Company | 900,000 | | | | | 900,000 |
| Surrano Company | | 250,000 | (3) 250,000 | | | |
| Treasury Stock | | (48,000) | | (3) 48,000 | | |
| Retained Earnings from above | 542,500 | 488,000 | 432,000 | 42,500 | 14,775 | 626,225 |
| Noncontrolling Interest 1/1 | | | | (3) 104,118 | 104,118 | |
| Noncontrolling Interest 12/31 | | | | | 118,893 | 118,893 |
| Total | 1,990,000 | 930,000 | 889,736 | 889,736 | | 2,350,118 |

*$148,500 x .15 = $22,275

**Problem 4-14 (continued)**

(1) To eliminate intercompany dividends
(2) To eliminate intercompany dividends receivable and payable
(3) To eliminate investment in Surrano company and create noncontrolling interest account
(4) To allocate the difference between implied and book value

Computation and Allocation of Difference between Implied and Book Value Acquired

| | Parent Share | Non-Controlling Share | Entire Value |
|---|---|---|---|
| Purchase price and implied value | **590,000** | **104,118** | 694,118 * |
| Less: Book value of equity acquired: | | | |
| Equity ($531,000 - $48,000) | 410,550 | 72,450 | **483,000** |
| Subsidiary Income purchased (6/12)($297,000) | 126,225 | 22,275 | **148,500** |
| Total book value | 536,775 | 94,725 | 631,500 |
| Difference between implied and book value | 53,225 | 9,393 | **62,618** |
| Undervalued land | (53,225) | (9,393) | **(62,618)** |
| Balance | - 0 - | - 0 - | - 0 - |

*$590,000/.85

**Problem 4-15**

**Worksheet - Cost Method**

Punca Company and Subsidiary
Consolidated Statements Workpaper
For the Year Ended December 31, 2010

| | Punca Company | Surrano Company | Eliminating Entries Dr. | Eliminating Entries Cr. | Noncontrolling Interest | Consolidated Balance |
|---|---|---|---|---|---|---|
| **Income Statement** | | | | | | |
| Sales | 2,100,000 | 650,000 | | | | 2,750,000 |
| Dividend Income | 42,500 | 3,000 | (1) 42,500 | | | 3,000 |
| Total Revenue | 2,142,500 | 653,000 | | | | 2,753,000 |
| Cost of Goods Sold | 1,540,000 | 379,500 | | | | 1,919,500 |
| Other Expenses | 415,000 | 125,000 | | | | 540,000 |
| Total Cost and Expense | 1,955,000 | 504,500 | | | | 2,459,500 |
| Net Income | 187,500 | 148,500 | | | | 293,500 |
| Noncontrolling Interest* | | | | | 22,275 | (22,275) |
| Net Income to Retained Earnings | 187,500 | 148,500 | 42,500 | | 22,275 | 271,225 |
| **Retained Earnings Statement** | | | | | | |
| Retained Earnings | | | | | | |
| Punca Company 1/1 | 355,000 | | | | | 355,000 |
| Surrano Company 7/1 | | 389,500 | (3) 389,500 | | | |
| Net Income from above | 187,500 | 148,500 | 42,500 | | 22,275 | 271,225 |
| Dividends Declared | | | | | | |
| Punca Company 1/1 | 0 | | | | | |
| Surrano Company 7/1 | | (50,000) | | (1) 42,500 | (7,500) | |
| Retained Earnings 12/31 | 542,500 | 488,000 | 432,000 | 42,500 | 14,775 | 626,225 |
| **Balance Sheet** | | | | | | |
| Current Assets | 150,000 | 180,000 | | (2) 42,500 | | 287,500 |
| Investment in Surrano | 590,000 | | | (3) 590,000 | | |
| Difference b/w Implied & Book Value | | | (3) 62,618 | (4) 62,618 | | |
| Plant and Equipment | 1,250,000 | 750,000 | (4) 62,618 | | | 2,062,618 |
| Total | 1,990,000 | 930,000 | | | | 2,350,118 |
| Accounts and Notes Payable | 277,500 | 150,000 | | | | 427,500 |
| Dividends Payable | | 50,000 | (2) 42,500 | | | 7,500 |
| Common Stock: | | | | | | |
| Punca Company 1/1 | 270,000 | | | | | 270,000 |
| Surrano Company 7/1 | | 40,000 | (3) 40,000 | | | |
| Other Contributed Capital | | | | | | |
| Punca Company 1/1 | 900,000 | | | | | 900,000 |
| Surrano Company 7/1 | | 250,000 | (3) 250,000 | | | |
| Treasury Stock | | (48,000) | | (3) 48,000 | | |
| Retained Earnings from above | 542,500 | 488,000 | 432,000 | 42,500 | 14,775 | 626,225 |
| Noncontrolling Interest 1/1 | | | | (3) 104,118 | 104,118 | |
| Noncontrolling Interest 12/31 | | | | | 118,893 | 118,893 |
| Total | 1,990,000 | 930,000 | 889,736 | 889,736 | | 2,350,118 |

*$148,500 x .15 = $22,275

**Problem 4-15 (continued)**

(1) To eliminate intercompany dividends
(2) To eliminate intercompany dividends receivable and payable
(3) To eliminate investment in Surrano company and create noncontrolling interest account
(4) To allocate the difference between implied and book value

Computation and Allocation of Difference between Implied and Book Value Acquired

| | Parent Share | Non-Controlling Share | Entire Value |
|---|---|---|---|
| Purchase price and implied value | **590,000** | **104,118** | 694,118 * |
| Less: Book value of equity acquired: | | | |
| Equity ($531,000 - $48,000) | 410,550 | 72,450 | **483,000** |
| Subsidiary Income purchased (6/12)($297,000) | 126,225 | 22,275 | **148,500** |
| Total book value | 536,775 | 94,725 | 631,500 |
| Difference between implied and book value | 53,225 | 9,393 | **62,618** |
| Undervalued land | (53,225) | (9,393) | **(62,618)** |
| Balance | - 0 - | - 0 - | - 0 - |

*$590,000/.85

**Problem 4-16**

**Workpaper - Interim Basis, Partial Equity Method**

Pillow Company and Subsidiary
Consolidated Statements Workpaper
For the Year Ended December 31, 2009

| | Pillow | Satin | Eliminating Entries | | Noncontrolling | Consolidated |
|---|---|---|---|---|---|---|
| | Company | Company | Dr. | Cr. | Interest | Balance |
| **Income Statement** | | | | | | |
| Sales | 1,940,000 | 976,000 | | | | 2,916,000 |
| Equity in Subsidiary Income | 90,000 | | (1) 90,000 | | | |
| Total Revenue | 2,030,000 | 976,000 | | | | 2,916,000 |
| Cost of Goods Sold | 1,261,000 | 584,000 | | | | 1,845,000 |
| Other Expenses | 484,000 | 242,000 | | | | 726,000 |
| Total Cost and Expense | 1,745,000 | 826,000 | | | | 2,571,000 |
| Net Income | 285,000 | 150,000 | | | | 345,000 |
| Net Income Purchased | | | (3) 45,000 | | | (45,000) |
| Noncontrolling Interest * | | | | | 15,000 | (15,000) |
| Net Income to Retained Earnings | 285,000 | 150,000 | 135,000 | | 15,000 | 285,000 |
| **Retained Earnings Statement** | | | | | | |
| Retained Earnings 1/1 | | | | | | |
| Pillow Company | 315,360 | | | | | 315,360 |
| Satin Company | | 209,200 | (3) 209,200 | | | |
| Net Income from above | 285,000 | 150,000 | 135,000 | | 15,000 | 285,000 |
| Dividends Declared | | | | | | |
| Pillow Company | 0 | | | | | |
| Satin Company | | (60,000) | | (1) 54,000 | (6,000) | |
| Retained Earnings 12/31 | 600,360 | 299,200 | 344,200 | 54,000 | 9,000 | 600,360 |
| **Balance Sheet** | | | | | | |
| Current Assets | 390,600 | 179,200 | | (2) 54,000 | | 515,800 |
| Investment in Satin | 510,000 | | | (3) 474,000 | | |
| | | | | (1) 36,000 | | |
| Difference b/w Implied & Book Value | | | (3) 9,467 | (4) 9,467 | | |
| Plant and Equipment | 1,334,000 | 562,000 | (4) 9,467 | | | 1,905,467 |
| Total | 2,234,600 | 741,200 | | | | 2,421,267 |
| Accounts and Notes Payable | 270,240 | 124,000 | | | | 394,240 |
| Dividends Payable | | 60,000 | (2) 54,000 | | | 6,000 |
| Common Stock: | | | | | | |
| Pillow Company | 1,000,000 | | | | | 1,000,000 |
| Satin Company | | 200,000 | (3) 200,000 | | | |
| Other Contributed Capital | | | | | | |
| Pillow Company | 364,000 | | | | | 364,000 |
| Satin Company | | 90,000 | (3) 90,000 | | | |
| Treasury Stock | | (32,000) | | (3) 32,000 | | |
| Retained Earnings from above | 600,360 | 299,200 | 344,200 | 54,000 | 9,000 | 600,360 |
| Noncontrolling Interest 1/1 | | | | (3) 47,667 | ** 47,667 | |
| Noncontrolling Interest 12/31 | | | | | 56,667 | 56,667 |
| Total | 2,234,600 | 741,200 | 707,134 | 707,134 | | 2,421,267 |

* ($150,000 × .10) = $15,000.
**$52,667 - $5,000 = $47,667

**Problem 4-16 (continued)**

(1) To eliminate intercompany dividends and income
(2) To eliminate intercompany receivables and payables
(3) To eliminate investment in Satin Company and create noncontrolling interest account
(4) To allocate the difference between implied and book value

Computation and Allocation of Difference between Implied and Book Value Acquired

| | Parent Share | Non-Controlling Share | Entire Value |
|---|---|---|---|
| Purchase price and implied value | **474,000** | **52,667** | 526,667 * |
| Less: Book value of equity acquired: | | | |
| Equity ($499,200 - $32,000) | 420,480 | 46,720 | **467,200** |
| Subsidiary Income purchased (4/12)($150,000) | 45,000 | 5,000 | **50,000** |
| Total book value | 465,480 | 51,720 | 517,200 |
| Difference between implied and book value | 8,520 | 947 | **9,467** |
| Undervalued land | (8,520) | (947) | **(9,467)** |
| Balance | - 0 - | - 0 - | - 0 - |

$474,000/.90

**Problem 4-17**

Pillow Company and Subsidiary
Consolidated Statements Workpaper

**Workpaper - Partial Equity Method** For the Year Ended December 31, 2009

| | Pillow Company | Satin Company | Eliminating Entries Dr. | Eliminating Entries Cr. | Noncontrolling Interest | Consolidated Balance |
|---|---|---|---|---|---|---|
| **Income Statement** | | | | | | |
| Sales | 1,940,000 | 650,666 | | | | 2,590,666 |
| Equity in Subsidiary Income | 90,000 | | (1) 90,000 | | | |
| Total Revenue | 2,030,000 | 650,666 | | | | 2,590,666 |
| Cost of Goods Sold | 1,261,000 | 389,333 | | | | 1,650,333 |
| Other Expenses | 484,000 | 161,333 | | | | 645,333 |
| Total Cost and Expense | 1,745,000 | 550,666 | | | | 2,295,666 |
| Net Income | 285,000 | 100,000 | | | | 295,000 |
| Noncontrolling Interest ($10,000×.10) | | | | | 10,000 | (10,000) |
| Net Income to Retained Earnings | 285,000 | 100,000 | 90,000 | | 10,000 | 285,000 |

| | Pillow Company | Satin Company | Eliminating Entries Dr. | Eliminating Entries Cr. | Noncontrolling Interest | Consolidated Balance |
|---|---|---|---|---|---|---|
| **Retained Earnings Statement** | | | | | | |
| Retained Earnings 1/1 | | | | | | |
| Pillow Company | 315,360 | | | | | 315,360 |
| Satin Company | | 259,200 | (3) 259,200 | | | |
| Net Income from above | 285,000 | 100,000 | 90,000 | | 10,000 | 285,000 |
| Dividends Declared | | | | | | |
| Pillow Company | 0 | | | | | |
| Satin Company | | (60,000) | | (1) 54,000 | (6,000) | |
| Retained Earnings 12/31 | 600,360 | 299,200 | 349,200 | 54,000 | 4,000 | 600,360 |
| | | | | | | |
| **Balance Sheet** | | | | | | |
| Current Assets | 390,600 | 179,200 | | (2) 54,000 | | 515,800 |
| Investment in Satin | 510,000 | | | (3) 474,000 | | |
| | | | | (1) 36,000 | | |
| Difference b/w Implied & Book Value | | | (3) 9,467 | (4) 9,467 | | |
| Plant and Equipment | 1,334,000 | 562,000 | (4) 9,467 | | | 1,905,467 |
| Total | 2,234,600 | 741,200 | | | | 2,421,267 |
| | | | | | | |
| Accounts and Notes Payable | 270,240 | 124,000 | | | | 394,240 |
| Dividends Payable | | 60,000 | (2) 54,000 | | | 6,000 |
| Common Stock | | | | | | |
| Pillow Company | 1,000,000 | | | | | 1,000,000 |
| Satin Company | | 200,000 | (3) 200,000 | | | |
| Other Contributed Capital | | | | | | |
| Pillow Company | 364,000 | | | | | 364,000 |
| Satin Company | | 90,000 | (3) 90,000 | | | |
| Treasury Stock | | (32,000) | | (3) 32,000 | | |
| Retained Earnings from above | 600,360 | 299,200 | 349,200 | 54,000 | 4,000 | 600,360 |
| Noncontrolling Interest 1/1 | | | | (3) 52,667 | * 52,667 | |
| Noncontrolling Interest 12/31 | | | | | 56,667 | 56,667 |
| Total | 2,234,600 | 741,200 | 712,134 | 712,134 | | 2,421,267 |

*$52,667 + $4,000 = $56,667

**Problem 4-17 (continued)**

(1) To eliminate intercompany dividends
(2) To eliminate intercompany receivables and payables
(3) To eliminate investment in Satin Company and create noncontrolling interest account
(4) To allocate the difference between implied and book value

Computation and Allocation of Difference between Implied and Book Value Acquired

| | Parent Share | Non-Controlling Share | Entire Value |
|---|---|---|---|
| Purchase price and implied value | **474,000** | **52,667** | 526,667 * |
| Less: Book value of equity acquired: | | | |
| Equity ($499,200 - $32,000) | 420,480 | 46,720 | **467,200** |
| Subsidiary Income purchased (4/12)($150,000) | 45,000 | 5,000 | **50,000** |
| Total book value | 465,480 | 51,720 | 517,200 |
| Difference between implied and book value | 8,520 | 947 | **9,467** |
| Undervalued land | (8,520) | (947) | **(9,467)** |
| Balance | - 0 - | - 0 - | - 0 - |

*$474,000/.90

**Problem 4-18**

## Consolidated Statement of Cash Flows - Indirect Method

P Company and Subsidiary
Consolidated Statement of Cash Flows
For the Year Ended December 31, 2011

| | | |
|---|---|---|
| Cash flows from operating activities: | | |
| Consolidated net income | | $330,000 |
| Adjustments to convert consolidated net income to net cash flow from operating activities | | |
| Depreciation expense | 95,000 | |
| Increase in accounts receivable | (110,000) | |
| Increase in inventories | (20,000) | |
| Decrease in accounts payable | (232,000) | |
| Increase in accrued payable | 60,000 | (207,000) |
| Net cash flow from operating activities | | 123,000 |
| Cash flows from investing activities: | | |
| Purchases of plant assets | | (545,000) |
| Cash flows from financing activities: | | |
| Proceeds from the issuance of bonds | 240,000 | |
| Proceeds from the issuance of common stock * | 200,000 | |
| Cash dividends paid ** | (68,000) | |
| Net cash flow from financing activities | | 372,000 |
| Decrease in cash | | ($50,000) |

* ($600,000 + $275,000) – ($450,000 + $225,000) = $200,000
** ($60,000 + ($40,000 × .20)) = $68,000.

**Problem 4-19**

Parks Company and Subsidiary
Consolidated Statement of Cash Flows – Direct Method
For the Year Ended December 31, 2012

| | | |
|---|---|---|
| Cash flows from operating activities: | | |
| Cash received from customers (1) | | $274,000 |
| Cash received from investment income | | 4,500 |
| Total cash provided by operating activities | | $278,500 |
| Less cash paid for: | | |
| Merchandise purchases (2) | $159,000 | |
| Operating expenses (3) | 83,000 | 242,000 |
| Net cash flow from operating activities | | $36,500 |
| Cash flows from investing activities: | | |
| Purchase of plant assets (4) | | (33,000) |
| Cash flows from financing activities: | | |
| Proceeds from the issuance of common stock | $ 87,500 | |
| Retirement of bonds payable | (50,000) | |
| Cash dividends paid (5) | (20,300) | |
| Net cash flow from financing activities | | 17,200 |
| Increase in cash | | $20,700 |

| | |
|---|---|
| (1) Accrual basis sales | $239,000 |
| Plus: beginning accounts receivable | 90,000 |
| Less: ending accounts receivable | (55,000) |
| Cash received from customers | $274,000 |

| | |
|---|---|
| (2) Accrual basis cost of goods sold | $104,000 |
| Less: beginning inventory | (92,000) |
| Plus: ending inventory | 126,000 |
| Plus: beginning accounts payable | 88,500 |
| Less: ending accounts payable | (67,500) |
| Cash paid for merchandise purchases | $159,000 |

| | |
|---|---|
| (3) Operating expenses | $72,000 |
| Plus: beginning accrued expenses | 41,000 |
| Less: ending accrued expenses | (30,000) |
| Cash paid for operating expenses | $83,000 |

| | |
|---|---|
| (4) Increase in property, plant, and equipment | $6,000 |
| Add: Depreciation | 27,000 |
| Cash paid for purchases of plant assets | $33,000 |

| | |
|---|---|
| (5) Beginning retained earnings | $112,500 |
| Plus: consolidated net income | 37,500 |
| Total | 150,000 |
| Less: ending retained earnings | 130,500 |
| Dividends paid by Parks Company | 19,500 |
| Plus: dividends paid by SCR, Inc. to noncontrolling interest ($8,000 × .10) | 800 |
| Cash paid for dividends | $20,300 |

# CHAPTER 5

## ANSWERS TO QUESTIONS

1. a. The "difference between implied and book value" is the total difference between the value of the subsidiary in total, as implied by the acquisition cost of an investment in that subsidiary, and the book value of the subsidiary's equity on the date of the acquisition (note that equity is the same as net assets).

   b. The excess of implied value over fair value, or "Goodwill," is the excess of the value of the subsidiary, as implied by the amount paid by the parent, over the fair value of the identifiable net assets of that subsidiary on the date of acquisition.

   c. The "excess of fair value over implied value" is the excess of the fair value of the identifiable net assets of a subsidiary (all assets other than goodwill minus liabilities) on the acquisition date over the value of the subsidiary as implied by the amount paid by the parent. This may be referred to as a bargain acquisition.

   d. An excess of book value over fair value describes a situation where some (or all) of the subsidiary's assets need to be written down rather than up (or liabilities need to be increased, or both). It does not, however, tell us whether the acquisition results in the recording of goodwill or an ordinary gain (in a bargain acquisition). That determination depends on the comparison of fair value of identifiable net assets and the implied value (purchase price divided by percentage acquired), referred to in parts (b) and (c) above.

2. The "difference between implied and book value" and the "Goodwill" are a part of the cost of an investment and are included in the amount recorded in the investment account. Although not recorded separately in the records of the parent company, these amounts must be known in order to prepare the consolidated financial statements.

3. In allocating the difference between implied and book value to specific assets of a less than wholly owned subsidiary, the difference between the fair value and book value of each asset on the date of acquisition is reflected by adjusting each asset upward or downward to fair value (marked to market) in its entirety, regardless of the percentage acquired by the parent company.

4. If the parent's share of the fair value exceeds the cost, then the entire fair value similarly exceeds the implied value of the subsidiary. This constitutes a bargain acquisition, and under proposed GAAP (ED No. 1204-001), the excess is recorded as an ordinary gain in the period of the acquisition. Past GAAP (APB Opinion No. 16) differed in that it provided that the excess of fair value over cost should be allocated to reduce proportionally the values assigned to noncurrent assets with certain exceptions. If such noncurrent assets were reduced to zero (or to the noncontrolling percentage, if there was one) by this allocation, any remaining excess was recorded as an extraordinary gain.

5. The recording of an ordinary (or extraordinary gain) on an acquisition flies in the face of the rules of revenue recognition because no earnings process has been completed. On the other hand, a decision to record certain assets below their fair values is arbitrary, and also rather confusing (how far should they be reduced?) The reason that bargain acquisitions are unlikely to occur very often is because they suggest that the usual assumptions of an arm's length transaction have been

violated. In most accounting scenarios, we assume that both parties are negotiating for a reasonable exchange price and that price, once established, represents fair value both for the item given up and the item received. In the case of a business combination, there is not a single item being exchanged but rather a number of assets and liabilities. Nonetheless, the assumption is still that both parties are negotiating for a fair valuation. If one party is able to obtain a bargain, it most likely indicates that the other party was being influenced by non-quantitative considerations, such as a wish to retire quickly, health concerns, etc.

6. If P Company acquires a 100 percent interest in S Company the land will be included in the consolidated financial statements at its fair value on the date of acquisition of $1,500,000. If P Company acquires an 80 percent interest in S Company, the land will still be included in the consolidated financial statements at $1,500,000, and the noncontrolling interest would be charged with its share of the fair value adjustment.

7. (d). Once the determination is made that none of the assets are over-valued (and none of the liabilities under-valued), the bargain is reflected as an ordinary gain of $10,000 in the year of acquisition.

8. (b). The “excess of fair value over implied value” is reported as an ordinary gain under the FASB exposure draft on business combinations (ED 1204-001).

9. Under the entity theory, the noncontrolling interest shares in the adjustment of consolidated net assets for the difference between implied and book value. The noncontrolling interest is also affected by the amortization or depreciation in the consolidated workpapers of the difference between implied and book value. Assuming that implied value exceeds book value, the effect will generally be to lower the noncontrolling interest in reported earnings because of its (the noncontrolling interest’s) share of the excess depreciation and amortization charges, additional cost of goods sold, impairment of goodwill, etc.

## ANSWERS TO BUSINESS ETHICS CASE

This case brings an interesting question to the table for discussion. As the article by Mano points out, each individual must decide for himself or herself how to respond to the gray issues that are bound to arise in life. Ultimately life is more about being at peace with ourselves and leaving a legacy of a life well-lived and values taught through our example to the generations that we leave behind us than it is about accumulating wealth (that we cannot take to the grave). The individual, had he acted on the advice, may have been guilty of insider trading as the information available to him was, apparently, not available publicly. Although there is no clear-cut definition of what constitutes insider trading, the gray area implies uncertainty; and this uncertainty can in many cases result in decisions that have severe implications both professionally and personally.

## ANSWERS TO EXERCISES

### Exercise 5-1

### Part A

Computation and Allocation of Difference Schedule

| | Parent Share | Non-Controlling Share | Entire Value |
|---|---|---|---|
| Purchase price and implied value | **$540,000** | **95,294** | 635,294 * |
| Less: Book value of equity acquired: | | | |
| Common stock | 340,000 | 60,000 | **400,000** |
| Retained earnings | 119,000 | 21,000 | **140,000** |
| Total book value | 459,000 | 81,000 | 540,000 |
| Difference between implied and book value | 81,000 | 14,294 | **95,294** |
| Marketable Securities ($45,000 – $20,000) | (21,250) | (3,750) | (**25,000)** |
| Equipment ($140,000 – $120,000) | (17,000) | (3,000) | **(20,000)** |
| Balance | 42,750 | 7,544 | 50,294 |
| Goodwill | (42,750) | (7,544) | **(50,294)** |
| Balance | -0- | -0- | -0- |

*$540,000/.85

### Part B

| | |
|---|---|
| Marketable securities | $ 45,000 |
| Equipment (net) | 140,000 |
| Goodwill | 50,294 |

### Exercise 5-2

Computation and Allocation of Difference Schedule

| | Parent Share | Non-Controlling Share | Entire Value |
|---|---|---|---|
| Purchase price and implied value | **$585,000** | **195,000** | 780,000 * |
| Less: Book value of equity acquired | 450,000 | 150,000 | **600,000** |
| Difference between implied and book value | 135,000 | 45,000 | **180,000** |
| Equipment ($705,000 – $525,000) | (135,000) | (45,000) | **(180,000)** |
| Balance | - 0 - | - 0 - | - 0 - |

*$585,000/.75

| | | | |
|---|---|---|---|
| **Part A** | Equipment | 180,000 | |
| | Difference between Implied and Book Value | | 180,000 |
| | | | |
| | Depreciation Expense ($180,000/10) | 18,000 | |
| | Accumulated Depreciation | | 18,000 |

**Exercise 5-2 (continued)**

**Part B**

The asset has a value of $180,000 with 10 years of a 15 year life (i.e. 2/3). Therefore, the implied gross value of the asset is $270,000 (or $180,000 ÷ 2/3).

| | | |
|---|---|---|
| Equipment ($180,000 ÷ 2/3) | 270,000 | |
| Accumulated Depreciation (1/3 × $270,000) | | 90,000 |
| Difference between Implied and Book Value | | 180,000 |
| | | |
| Depreciation Expense ($180,000/10) | 18,000 | |
| Accumulated Depreciation | | 18,000 |

**Exercise 5-3**

| | | | |
|---|---|---|---|
| **Part A** | Investment in Saddler Corporation | 525,000 | |
| | Cash | | 525,000 |

**Part B** Computation and Allocation of Difference Schedule

| | Parent Share | Non-Controlling Share | Entire Value |
|---|---|---|---|
| Purchase price and implied value | **$525,000** | **131,250** | 656,250 * |
| Less: Book value of equity acquired | 480,000 | 120,000 | **600,000** |
| Difference between implied and book value | 45,000 | 11,250 | **56,250** |
| Inventory | (16,000) | (4,000) | **(20,000)** |
| Marketable Securities | (20,000) | (5,000) | (**25,000)** |
| Plant and Equipment | (24,000) | (6,000) | (**30,000)** |
| Balance (excess of FV over implied value) | (15,000) | (3,750) | (18,750) |
| Gain | **15,000** | | |
| Increase Noncontrolling interest to fair value of assets | | **3,750** | |
| Total allocated bargain | | | 18,750 |
| Balance | -0- | -0- | -0- |

*$525,000/.80

## Exercise 5-4

### Part A

Computation and Allocation of Difference Schedule

| | Parent Share | Non-Controlling Share | Entire Value |
|---|---|---|---|
| Purchase price and implied value | **$260,000** | **65,000** | 325,000 * |
| Less: Book value of equity acquired | 270,000 | 67,500 | **337,500** |
| Difference between implied and book value | (10,000) | (2,500) | **(12,500)** |
| Inventory | (4,000) | (1,000) | **(5,000)** |
| Current Assets | (4,000) | (1,000) | **(5,000)** |
| Equipment (net) | (40,000) | (10,000) | **(50,000)** |
| Balance (excess of FV over implied value) | (58,000) | (14,500) | (72,500) |
| Gain | **58,000** | | |
| Increase Noncontrolling interest to fair value of assets | | **14,500** | |
| Total allocated bargain | | | 72,500 |
| Balance | -0- | -0- | -0- |

*$260,000/.80

**Part B**

| | | | |
|---|---|---|---|
| (1) | Capital Stock- Salem Company | 207,000 | |
| | Beginning Retained Earnings-Salem Company | 130,500 | |
| | Difference between Implied and Book Value | | 12,500 |
| | Investment in Salem Company | | 260,000 |
| | Noncontrolling Interest | | 65,000 |
| (2) | Difference between Implied and Book Value | 12,500 | |
| | Inventory | 5,000 | |
| | Current Assets | 5,000 | |
| | Equipment (net) | 50,000 | |
| | Gain on Acquisition | | 58,000 |
| | Noncontrolling interest | | 14,500 |

## Exercise 5-5

Noncontrolling Interest in Consolidated Income

| | | | |
|---|---|---|---|
| Amortization of the difference between implied and book value related to patent amortization ($100,000*/10) | 10,000 | Net income reported by S | $ 100,000 |
| | | Adjusted net income of S | 90,000 |
| | | Noncontrolling Ownership percentage interest | 20% |
| | | Noncontrolling Interest in Consolidated Net Income | $ 18,000 |

* (600,000/.80) – ($300,000 + $350,000)

**Exercise 5-5 (continued)**

Controlling Interest in Consolidated Income

| | | |
|---|---|---|
| | P Company's net income from its independent operations | $ 200,000 |
| | P Company's share of the adjusted income of S Company (.8 X $90,000) | 72,000 |
| | Controlling Interest in Consolidated Net Income | $ 272,000 |

| | Parent Share | Non-Controlling Share | Entire Value |
|---|---|---|---|
| Purchase price and implied value | **$600,000** | **150,000** | 750,000 |
| Less: Book value of equity acquired | 520,000 | 130,000 | **650,000** |
| Difference between implied and book value (patent) | 80,000 | 20,000 | **100,000** |
| Patent | (80,000) | (20,000) | **(100,000)** |
| Balance | -0- | -0- | -0- |

*$600,000/.80

**Exercise 5-6**

| | 2012 | | 2013 | |
|---|---|---|---|---|
| 1/1 Retained Earnings-Park Co.* (12,000 x .85) | | | 10,200 | |
| Noncontrolling Interest | | | 1,800 | |
| Depreciation Expense ($120,000/10) | 12,000 | | 12,000 | |
| Equipment [$120,000/(10/15)] | 180,000 | | 180,000 | |
| Accumulated Depreciation | | 72,000[a] | | 84,000[b] |
| Difference between Implied and Book Value | | 120,000 | | 120,000 |

* If the complete equity method is used, the debit to 1/1 Retained Earnings – Park Co. would be replaced with a debit to Investment in Sunland Company

a ($180,000)(6/15)= $72,000

b ($180,000)(7/15)= $84,000

**Alternative entries**

| | 2012 | | 2013 | |
|---|---|---|---|---|
| Equipment [$120,000/(10/15)] | 180,000 | | 180,000 | |
| Accumulated Depreciation ($180,000 × 5/15) | | 60,000 | | 60,000 |
| Difference between Implied and Book Value | | 120,000 | | 120,000 |
| | | | | |
| 1/1 Retained Earnings-Park Co*. | | | 10,200 | |
| Noncontrolling Interest | | | 1,800 | |
| Depreciation Expense ($120,000/10) | 12,000 | | 12,000 | |
| Accumulated Depreciation | | 12,000 | | 24,000[b] |

* If the complete equity method is used, the debit to 1/1 Retained Earnings – Park Co. would be replaced with a debit to Investment in Sunland Company

## Exercise 5-7

| | 2011 | | 2012 | |
|---|---|---|---|---|
| 1/1 Retained Earnings - Packard Co.* | | | 32,000 | |
| 1/1 Noncontrolling Interest | | | 8,000 | |
| Depreciation Expense ($200,000/5) | 40,000 | | 40,000 | |
| Equipment [$200,000/(5/10)] | 400,000 | | 400,000 | |
| Accumulated Depreciation | | 240,000[a] | | 280,000 |
| Difference between Implied and Book Value | | 200,000 | | 200,000 |

* If the complete equity method is used, the debit to 1/1 Retained Earnings – Packard Co. would be replaced with a debit to Investment in Sage Company

[a] $400,000 × (6/10) = $240,000
[b] $400,000 × (7/10) = $280,000

Computation and Allocation of Difference Schedule

| | Parent | Non- | Entire |
|---|---|---|---|
| | Share | Controlling | Value |
| | | Share | |
| Purchase price and implied value | **$600,000** | **150,000** | 750,000 * |
| Less: Book value of equity acquired | 440,000 | 110,000 | **550,000** |
| Difference between implied and book value | 160,000 | 40,000 | **200,000** |
| Equipment ($705,000 – $525,000) | (160,000) | (40,000) | **(200,000)** |
| Balance | - 0 - | - 0 - | - 0 - |

*$600,000/.80

Alternative entries

| | 2011 | | 2012 | |
|---|---|---|---|---|
| Equipment [$200,000/(5/10)] | 400,000 | | 400,000 | |
| Accumulated Depreciation | | 200,000 | | 200,000 |
| Difference between Implied and Book Value | | 200,000 | | 200,000 |
| | | | | |
| 1/1 Retained Earnings - Packard Co. | | | 32,000 | |
| 1/1 Noncontrolling interest | | | 8,000 | |
| Depreciation Expense ($400,000/10) | 40,000 | | 40,000 | |
| Accumulated Depreciation | | 40,000 | | 80,000 |

* If the complete equity method is used, the debit to 1/1 Retained Earnings – Packard Co. would be replaced with a debit to Investment in Sage Company

## Exercise 5-8

| | | | |
|---|---|---|---|
| **Part A** | Land ($31,000/0.8) | 38,750 | |
| | Difference between Implied and Book Value | | 38,750 |

| | | |
|---|---|---|
| **Part B** | Gain on subsidiary books | $50,000 |
| | Reduction for consolidated adjustment to fair market value | (38,750) |
| | Consolidated gain | $11,250 |

| | | | |
|---|---|---|---|
| **Part C** | 1/1 Retained Earnings - Padilla Co. | 38,750 | |
| | Difference between Implied and Book Value | | 38,750 |

## Exercise 5-9

**Part A**

Computation and Allocation of Difference Schedule

| | Parent Share | Non-Controlling Share | Entire Value |
|---|---|---|---|
| Purchase price and implied value | **$2,000,000** | **500,000** | 2,500,000 * |
| Less: Book value of equity acquired | 1,760,000 | 440,000 | **2,200,000** |
| Difference between implied and book value | 240,000 | 60,000 | **300,000** |
| Land ($100,000 – $ 80,000) | (16,000) | (4,000) | (**20,000)** |
| Premium on Bonds Payable[a] | 31,941 | 7,985 | **39,926** |
| Balance | 255,941 | 63,985 | 319,926 |
| Goodwill | (255,941) | (63,985) | (**319,926)** |
| Balance | -0- | -0- | -0- |

*$2,000,000/.80

[a]Present Value on 1/1/2010 of 10% Bonds Payable
Discounted at 8% over 5 periods

| | |
|---|---|
| Principal ($500,000 × 0.68058) | $340,290 |
| Interest ($50,000 × 3.99271) | 199,636 |
| Fair value of bond | $539,926 |
| Face value of bond | 500,000 |
| Bond premium | 39,926 |

## Exercise 5-9 (continued)

### Part B

| | | |
|---|---|---|
| Land | 20,000 | |
| Goodwill | 319,926 | |
| Interest Expense ($50,000 – ($539,926 × 0.08)) | | 6,806 |
| Unamortized Premium on Bonds Payable ($39,926 – $6,806) | | 33,120 |
| Difference between Implied and Book Value | | 300,000 |

Alternative entries

| | | |
|---|---|---|
| Land | 20,000 | |
| Goodwill | 319,926 | |
| Unamortized Premium on Bonds Payable | | 39,926 |
| Difference between Implied and Book Value | | 300,000 |

| | | |
|---|---|---|
| Unamortized Premium on Bonds Payable | 6,806 | |
| Interest Expense ($50,000 – ($539,926 × 0.08)) | | 6,806 |

## Exercise 5-10

### Part A

Computation and Allocation of Difference Schedule

| | Parent Share | Non-Controlling Share | Entire Value |
|---|---|---|---|
| Purchase price and implied value | **$3,500,000** | **388,889** | 3,888,889 * |
| Less: Book value of equity acquired | 3,150,000 | 350,000 | **3,500,000** |
| Difference between implied and book value | 350,000 | 38,889 | **388,889** |
| Land ($200,000 - $ 120,000) | (72,000) | (8,000) | **(80,000)** |
| Premium on Bonds Payable[a] | 56,867 | 6,319 | **63,186** |
| Balance | 334,867 | 37,208 | 372,075 |
| Goodwill | (334,867) | (37,208) | **(372,075)** |
| Balance | -0- | -0- | -0- |

*$3,500,000/.90

[a] Present Value on 1/2/2010 of 9% Bonds Payable
Discounted at 6% for 5 periods

| | |
|---|---|
| Principal ($500,000 × 0.74726) | $373,630 |
| Interest ($45,000 × 4.21236) | 189,556 |
| Fair value of bond | $563,186 |
| Face value of bond | 500,000 |
| Premium on bond payable | 63,186 |

## Exercise 5-10 (continued)

| | | | |
|---|---|---|---|
| **Part B** | Land | 80,000 | |
| | Goodwill | 372,075 | |
| | Interest Expense | | 11,209[a] |
| | Unamortized Premium on Bonds Payable ($63,186 – $11,209) | | 51,977 |
| | Difference between Implied and Book Value | | 388,889 |

| | Year 2010 |
|---|---|
| [a] Effective Interest (0.06 × $563,186) | $(33,791) |
| Nominal Interest (0.09 × $500,000) | 45,000 |
| Difference | 11,209 |

Alternative entries

| | | |
|---|---|---|
| Land | 80,000 | |
| Goodwill | 372,075 | |
| Unamortized Premium on Bonds Payable | | 63,186 |
| Difference between Implied and Book Value | | 388,889 |

| | | |
|---|---|---|
| Unamortized Premium on Bonds Payable | 11,209 | |
| Interest Expense | | 11,209[a] |

## Exercise 5-11

Part 1 – Cost Method

Computation and Allocation of Difference Schedule

| | Parent Share | Non-Controlling Share | Entire Value |
|---|---|---|---|
| Purchase price and implied value | **$2,276,000** | **569,000** | 2,845,000 * |
| Less: Book value of equity acquired | 2,000,000 | 500,000 | **2,500,000** |
| Difference between implied and book value | 276,000 | 69,000 | **345,000** |
| Inventory | (36,000) | (9,000) | (**45,000)** |
| Equipment | (40,000) | (10,000) | **(50,000)** |
| Balance | 200,000 | 50,000 | 250,000 |
| Goodwill | (200,000) | (50,000) | (**250,000)** |
| Balance | -0- | -0- | -0- |

*$2,276,000/.80

**2010**

| | | | |
|---|---|---|---|
| (1) | Dividend Income | 16,000 | |
| | Dividends Declared (0.80 × $20,000) | | 16,000 |
| | To eliminate intercompany dividends | | |

**Exercise 5-11 (continued)**

| | | | |
|---|---|---|---|
| (2) | Beginning Retained Earnings-Sand | 700,000 | |
| | Capital Stock-Sand | 1,800,000 | |
| | Difference between Implied and Book Value | 345,000 | |
| | Investment in Sand Company | | 2,276,000 |
| | Noncontrolling Interest | | 569,000 |

| | | | |
|---|---|---|---|
| (3) | Cost of Goods Sold (Beginning Inventory) | 45,000 | |
| | Depreciation Expense ($50,000/8) | 6,250 | |
| | Equipment (net) ($50,000 – $6,250) | 43,750 | |
| | Goodwill | 250,000 | |
| | Difference between Implied and Book Value | | 345,000 |
| | To allocate and depreciate the difference between implied and book value | | |

Alternative to entry (3)

| | | | |
|---|---|---|---|
| (3a) | Cost of Goods Sold (Beginning Inventory) | 45,000 | |
| | Equipment (net) | 50,000 | |
| | Goodwill | 250,000 | |
| | Difference between Implied and Book Value | | 345,000 |

| | | | |
|---|---|---|---|
| (3b) | Depreciation Expense ($50,000/8) | 6,250 | |
| | Equipment (net) | | 6,250 |

**2011**

| | | | |
|---|---|---|---|
| (1) | Investment in Sand Company ($80,000 × 0.80) | 64,000 | |
| | Beginning Retained Earnings - Piper Company | | 64,000 |
| | To establish reciprocity/convert to equity method as of 1/1/2011 | | |

| | | | |
|---|---|---|---|
| (2) | Dividend Income ($30,000 × 0.80) | 24,000 | |
| | Dividends Declared | | 24,000 |
| | To eliminate intercompany dividends | | |

| | | | |
|---|---|---|---|
| (3) | Beginning Retained Earnings-Sand Company ($700,000 + $100,000 – $20,000) | 780,000 | |
| | Capital Stock-Sand Company | 1,800,000 | |
| | Difference between Implied and Book Value | 345,000 | |
| | Investment in Sand Company ($2,276,000 + $64,000) | | 2,340,000 |
| | Noncontrolling Interest ($569,000 + ($780,000 – $700,000) x 0.20) | | 585,000 |
| | To eliminate investment account and create noncontrolling interest account | | |

| | | | |
|---|---|---|---|
| (4) | Beginning Retained Earnings-Piper Company ($36,000 + $5,000) | 41,000 | |
| | Noncontrolling Interest ($9,000 + $1,250) | 10,250 | |
| | Depreciation Expense | 6,250 | |
| | Equipment (net) ($50,000 – $6,250 – $6,250) | 37,500 | |
| | Goodwill | 250,000 | |
| | Difference between Implied and Book Value | | 345,000 |
| | To allocate and depreciate the difference between implied and book value | | |

**Exercise 5-11 (continued)**

Alternative to entry (4)

| | | | |
|---|---|---|---|
| (4a) | Beginning Retained Earnings-Piper Company | 36,000 | |
| | Noncontrolling Interest | 9,000 | |
| | Equipment (net) | 50,000 | |
| | Goodwill | 250,000 | |
| | Difference between Implied and Book Value | | 345,000 |

| | | | |
|---|---|---|---|
| (4b) | Beginning Retained Earnings-Piper Company | 5,000 | |
| | Noncontrolling Interest | 1,250 | |
| | Depreciation Expense ($50,000/8) | 6,250 | |
| | Equipment (net) | | 12,500 |

**2012**

| | | | |
|---|---|---|---|
| (1) | Investment in Sand Company ($200,000 × 0.80) | 160,000 | |
| | Beginning Retained Earnings-Piper Company | | 160,000 |
| | To establish reciprocity/convert to equity method as of 1/1/2012 | | |

| | | | |
|---|---|---|---|
| (2) | Dividend Income ($15,000 × 0.80) | 12,000 | |
| | Dividends Declared | | 12,000 |
| | To eliminate intercompany dividends | | |

| | | | |
|---|---|---|---|
| (3) | Beginning Retained Earnings-Sand ($780,000 + $150,000 – $30,000) | 900,000 | |
| | Common Stock- Sand Company | 1,800,000 | |
| | Difference between Implied and Book Value | 345,000 | |
| | Investment in Sand Company ($2,276,000 + $160,000) | | 2,436,000 |
| | Noncontrolling Interest ($569,000 + ($900,000 – $700,000) x 0.20) | | 609,000 |
| | To eliminate investment account and create noncontrolling interest account | | |

| | | | |
|---|---|---|---|
| (4) | Beginning Retained Earnings-Piper Company ($41,000 + $5,000) | 46,000 | |
| | Noncontrolling Interest ($10,250 +$1,250) | 11,500 | |
| | Depreciation Expense | 6,250 | |
| | Equipment (net) | 31,250 | |
| | Goodwill | 250,000 | |
| | Difference between Implied and Book Value | | 345,000 |
| | To allocate and depreciate the difference between implied and book value | | |

Alternative to entry (4)

| | | | |
|---|---|---|---|
| (4a) | Beginning Retained Earnings-Piper Company | 36,000 | |
| | Noncontrolling Interest | 9,000 | |
| | Equipment (net) | 50,000 | |
| | Goodwill | 250,000 | |
| | Difference between Implied and Book Value | | 345,000 |

| | | | |
|---|---|---|---|
| (4b) | Beginning Retained Earnings-Piper Company | 10,000 | |
| | Noncontrolling Interest | 2,500 | |
| | Depreciation Expense ($50,000/8) | 6,250 | |
| | Equipment (net) | | 18,750 |

## Exercise 5-11 (continued)
## Part 2 – Partial Equity Method

Computation and Allocation of Difference Schedule

| | Parent Share | Non-Controlling Share | Entire Value |
|---|---|---|---|
| Purchase price and implied value | **$2,276,000** | **569,000** | 2,845,000 |
| Less: Book value of equity acquired | 2,000,000 | 500,000 | **2,500,000** |
| Difference between implied and book value | 276,000 | 69,000 | **345,000** |
| Inventory | (36,000) | (9,000) | **(45,000)** |
| Equipment | (40,000) | (10,000) | **(50,000)** |
| Balance | 200,000 | 50,000 | 250,000 |
| Goodwill | (200,000) | (50,000) | **(250,000)** |
| Balance | -0- | -0- | -0- |

Investment in Sand Corporation (Partial Equity)

| | | | |
|---|---|---|---|
| Cost of investment | 2,276,000P | | |
| 2010 equity income (.8)($100,000) | 80,000 | 2010 Dividends (.8)($20,000) | 16,000 |
| Balance 2010 | 2,340,000 | | |
| 2011 equity income (.8)($150,000) | 120,000 | 2011 Dividends (.8)($30,000) | 24,000 |
| Balance 2011 | 2,436,000 | | |
| 2012 equity income (.8)($80,000) | 64,000 | 2012 Dividends (.8)($15,000) | 12,000 |
| Balance 2012 | 2,488,000 | | |

**2010**

| | | | |
|---|---|---|---|
| (1) | Equity in Subsidiary Income (0.80 × $100,000) | 80,000 | |
| | Dividends Declared (0.80 × $20,000) | | 16,000 |
| | Investment in Sand Company | | 64,000 |
| | To eliminate intercompany dividends and income | | |

| | | | |
|---|---|---|---|
| (2) | Beginning Retained Earnings-Sand | 700,000 | |
| | Capital Stock-Sand | 1,800,000 | |
| | Difference between Implied and Book Value | 345,000 | |
| | Investment in Sand Company | | 2,276,000 |
| | Noncontrolling Interest | | 569,000 |

| | | | |
|---|---|---|---|
| (3) | Cost of Goods Sold (Beginning Inventory) | 45,000 | |
| | Depreciation Expense ($50,000/8) | 6,250 | |
| | Equipment (net) ($50,000 – $6,250) | 43,750 | |
| | Goodwill | 250,000 | |
| | Difference between Implied and Book Value | | 345,000 |
| | To allocate and depreciate the difference between implied and book value | | |

## Exercise 5-11 (continued)

Alternative to entry (3)

| | | | |
|---|---|---|---|
| (3a) | Cost of Goods Sold (Beginning Inventory) | 45,000 | |
| | Equipment (net) | 50,000 | |
| | Goodwill | 250,000 | |
| | Difference between Implied and Book Value | | 345,000 |
| | | | |
| (3b) | Depreciation Expense ($50,000/8) | 6,250 | |
| | Equipment (net) | | 6,250 |

## Part 2 – Partial Equity Method

### 2011

| | | | |
|---|---|---|---|
| (1) | Equity in Subsidiary Income (0.80 × $150,000) | 120,000 | |
| | Dividends Declared (0.80 × $30,000) | | 24,000 |
| | Investment in Sand Company | | 96,000 |
| | To eliminate intercompany dividends and income | | |
| | | | |
| (2) | Beginning Retained Earnings-Sand Company | 780,000 | |
| | Capital Stock- Sand Company | 1,800,000 | |
| | Difference between Implied and Book Value | 345,000 | |
| | Investment in Sand Company ($2,276,000 + $64,000) | | 2,340,000 |
| | Noncontrolling Interest ($569,000 + ($780,000 – $700,000) x 0.20) | | 585,000 |
| | To eliminate investment account and create noncontrolling interest account | | |
| | | | |
| (3) | Beginning Retained Earnings-Piper Company ($36,000 + $5,000) | 41,000 | |
| | Noncontrolling Interest ($9,000 + $1,250) | 10,250 | |
| | Depreciation Expense | 6,250 | |
| | Equipment (net) ($50,000 – $6,250 – $6,250) | 37,500 | |
| | Goodwill | 250,000 | |
| | Difference between Implied and Book Value | | 345,000 |
| | To allocate and depreciate the difference between implied and book value | | |

Alternative to entry (3)

| | | | |
|---|---|---|---|
| (3a) | Beginning Retained Earnings-Piper Company | 36,000 | |
| | Noncontrolling Interest | 9,000 | |
| | Equipment (net) | 50,000 | |
| | Goodwill | 250,000 | |
| | Difference between Implied and Book Value | | 345,000 |
| | | | |
| (3b) | Beginning Retained Earnings-Piper Company | 5,000 | |
| | Noncontrolling Interest | 1,250 | |
| | Depreciation Expense ($50,000/8) | 6,250 | |
| | Equipment (net) | | 12,500 |

**Exercise 5-11 (continued)**
**2012**

| | | | |
|---|---|---|---|
| (1) | Equity in Subsidiary Income (0.80 × $80,000) | 64,000 | |
| | Dividends Declared (0.80 × $15,000) | | 12,000 |
| | Investment in Sand Company | | 52,000 |
| | To eliminate intercompany dividends and income | | |

## Part 2 – Partial Equity Method

| | | | |
|---|---|---|---|
| (2) | Beginning Retained Earnings-Sand | 900,000 | |
| | Common Stock- Sand Company | 1,800,000 | |
| | Difference between Implied and Book Value | 345,000 | |
| | Investment in Sand Company ($2,276,000 + $160,000) | | 2,436,000 |
| | Noncontrolling Interest ($569,000 + ($900,000 – $700,000) x 0.20) | | 609,000 |
| | To eliminate investment account and create noncontrolling interest account | | |
| (3) | Beginning Retained Earnings-Piper Company ($41,000 + $5,000) | 46,000 | |
| | Noncontrolling Interest ($10,250 + $1,250) | 11,500 | |
| | Depreciation Expense | 6,250 | |
| | Equipment (net) | 31,250 | |
| | Goodwill | 250,000 | |
| | Difference between Implied and Book Value | | 345,000 |
| | To allocate and depreciate the difference between implied and book value | | |

Alternative to entry (3)

| | | | |
|---|---|---|---|
| (3a) | Beginning Retained Earnings-Piper Company | 36,000 | |
| | Noncontrolling Interest | 9,000 | |
| | Equipment (net) | 50,000 | |
| | Goodwill | 250,000 | |
| | Difference between Implied and Book Value | | 345,000 |
| (3b) | Beginning Retained Earnings-Piper Company | 10,000 | |
| | Noncontrolling Interest | 2,500 | |
| | Depreciation Expense ($50,000/8) | 6,250 | |
| | Equipment (net) | | 18,750 |

## Exercise 5-11 (Continued)
## Part 3 – Complete Equity Method

Computation and Allocation of Difference Schedule

| | Parent Share | Non-Controlling Share | Entire Value |
|---|---|---|---|
| Purchase price and implied value | **$2,276,000** | **569,000** | 2,845,000 |
| Less: Book value of equity acquired | 2,000,000 | 500,000 | **2,500,000** |
| Difference between implied and book value | 276,000 | 69,000 | **345,000** |
| Inventory | (36,000) | (9,000) | **(45,000)** |
| Equipment | (40,000) | (10,000) | **(50,000)** |
| Balance | 200,000 | 50,000 | 250,000 |
| Goodwill | (200,000) | (50,000) | **(250,000)** |
| Balance | -0- | -0- | -0- |

Investment in Sand Corporation (Complete Equity)

| | | | |
|---|---|---|---|
| Cost of investment | 2,276,000 | P | |
| 2010 equity income (.8)($100,000) | 80,000 | 2010 Dividends (.8)($20,000) | 16,000 |
| | | 2010 depreciation and cost of goods sold | 41,000 |
| Balance 2010 | 2,299,000 | | |
| 2011 equity income (.8)($150,000) | 120,000 | 2011 Dividends (.8)($30,000) | 24,000 |
| | | 2011 depreciation and cost of goods sold | 5,000 |
| Balance 2011 | 2,390,000 | | |
| 2012 equity income (.8)($80,000) | 64,000 | 2012 Dividends (.8)($15,000) | 12,000 |
| | | 2012 depreciation and cost of goods sold | 5,000 |
| Balance 2012 | 2,437,000 | | |

### 2010

| | | |
|---|---|---|
| (1) Equity in Subsidiary Income ((0.80 × $100,000) – $51,000) | 29,000 | |
| Dividends Declared (0.80 × $20,000) | | 16,000 |
| Investment in Sand Company | | 13,000 |
| To eliminate intercompany dividends and income | | |
| (2) Beginning Retained Earnings-Sand | 700,000 | |
| Capital Stock- Sand | 1,800,000 | |
| Difference between Implied and Book Value | 345,000 | |
| Investment in Sand Company | | 2,276,000 |
| Noncontrolling Interest | | 569,000 |

**Exercise 5-11 (continued)**

| | | | |
|---|---|---|---|
| (3) | Cost of Goods Sold (Beginning Inventory) | 45,000 | |
| | Depreciation Expense ($50,000/8) | 6,250 | |
| | Equipment (net) ($50,000 – $6,250) | 43,750 | |
| | Goodwill | 250,000 | |
| | Difference between Implied and Book Value | | 345,000 |
| | To allocate and depreciate the difference between implied and book value | | |

**Part 3 – Complete Equity Method**

Alternative to entry (3)

| | | | |
|---|---|---|---|
| (3a) | Cost of Goods Sold (Beginning Inventory) | 45,000 | |
| | Equipment (net) | 50,000 | |
| | Goodwill | 250,000 | |
| | Difference between Implied and Book Value | | 345,000 |
| (3b) | Depreciation Expense ($50,000/8) | 6,250 | |
| | Equipment (net) | | 6,250 |

**2011**

| | | | |
|---|---|---|---|
| (1) | Equity in Subsidiary Income ((0.80 × $150,000) – $15,000) | 105,000 | |
| | Dividends Declared (0.80 × $30,000) | | 24,000 |
| | Investment in Sand Company | | 81,000 |
| | To eliminate intercompany dividends and income | | |
| (2) | Beginning Retained Earnings-Sand Company | 780,000 | |
| | Capital Stock- Sand Company | 1,800,000 | |
| | Difference between Implied and Book Value | 345,000 | |
| | Investment in Sand Company ($2,276,000 + $64,000) | | 2,340,000 |
| | Noncontrolling Interest ($569,000 + ($780,000 – $700,000) x 0.20) | | 585,000 |
| | To eliminate investment account and create noncontrolling interest account | | |
| (3) | Investment in Sand Company ($36,000 + $5,000) | 41,000 | |
| | Noncontrolling interest ($9,000 + $1,250) | 10,250 | |
| | Depreciation expense | 6,250 | |
| | Equipment (net) ($50,000 – $6,250 – $6,250) | 37,500 | |
| | Goodwill | 250,000 | |
| | Difference between Implied and Book Value | | 345,000 |
| | To allocate and depreciate the difference between implied and book value | | |

Alternative to entry (4)

| | | | |
|---|---|---|---|
| (3a) | Investment in Sand Company | 36,000 | |
| | Noncontrolling Interest | 9,000 | |
| | Equipment (net) | 50,000 | |
| | Goodwill | 250,000 | |
| | Difference between Implied and Book Value | | 345,000 |

**Exercise 5-11 (continued)**

| | | |
|---|---|---|
| (3b) Investment in Sand Company | 5,000 | |
| Noncontrolling interest | 1,250 | |
| Depreciation Expense ($50,000/8) | 6,250 | |
| Equipment (net) | | 12,500 |

**Part 3 – Complete Equity Method**

**2012**

| | | |
|---|---|---|
| (1) Equity in Subsidiary Income ((0.80 × $80,000) – $15,000) | 49,000 | |
| Dividends Declared (0.80 × $15,000) | | 12,000 |
| Investment in Sand Company | | 37,000 |
| To eliminate intercompany dividends and income | | |

| | | |
|---|---|---|
| (2) Beginning Retained Earnings-Sand | 900,000 | |
| Common Stock- Sand Company | 1,800,000 | |
| Difference between Implied and Book Value | 345,000 | |
| Investment in Sand Company ($2,276,000 + $160,000) | | 2,436,000 |
| Noncontrolling Interest ($569,000 + ($900,000 – $700,000) x 0.20) | | 609,000 |
| To eliminate investment account and create noncontrolling interest account | | |

| | | |
|---|---|---|
| (3) Investment in Sand Company ($41,000 + $5,000) | 46,000 | |
| Noncontrolling Interest ($10,250 + $1,250) | 11,500 | |
| Depreciation Expense | 6,250 | |
| Equipment (net) | 31,250 | |
| Goodwill | 250,000 | |
| Difference between Implied and Book Value | | 345,000 |
| To allocate and depreciate the difference between implied and book value | | |

Alternative to entry (3)

| | | |
|---|---|---|
| (3a) Investment in Sand Company | 36,000 | |
| Noncontrolling Interest | 9,000 | |
| Equipment (net) | 50,000 | |
| Goodwill | 250,000 | |
| Difference between Implied and Book Value | | 345,000 |

| | | |
|---|---|---|
| (3b) Investment in Sand Company | 10,000 | |
| Noncontrolling Interest | 2,500 | |
| Depreciation Expense ($50,000/8) | 6,250 | |
| Equipment (net) | | 18,750 |

## Exercise 5-12

| | | | |
|---|---|---|---|
| **Part A** (1) | Investment in Saxton Corporation | 225,000 | |
| | Beginning Retained Earnings-Palm Inc. | | 225,000 |

To establish reciprocity/convert to equity (0.90 × ($1,250,000 – $1,000,000))

Computation and Allocation of Difference Schedule

| | Parent Share | Non-Controlling Share | Entire Value |
|---|---|---|---|
| Purchase price and implied value | **$3,750,000** | **416,667** | 4,166,667 * |
| Less: Book value of equity acquired | 3,600,000 | 400,000 | **4,000,000** |
| Difference between implied and book value | 150,000 | 16,667 | **166,667** |
| Inventory | (90,000) | (10,000) | **(100,000)** |
| Land | (360,000) | (40,000) | **(400,000)** |
| Balance (excess of FV over implied value) | (300,000) | (33,333) | (333,333) |
| Gain | **300,000** | | |
| Increase Noncontrolling interest to fair value of assets | | **33,333** | |
| Total allocated bargain | | | 333,333 |
| Balance | -0- | -0- | -0- |

*$3,750,000/.90

| | | | |
|---|---|---|---|
| (2) | Beginning Retained Earnings-Saxton Co. | 1,250,000 | |
| | Capital Stock- Saxton Co. | 3,000,000 | |
| | Difference between Implied and Book Value | 166,667 | |
| | Investment in Saxton Co. ($3,750,000 + $225,000) | | 3,975,000 |
| | Noncontrolling Interest [$416,667 + ($1,250,000 – $1,000,000) x .10] | | 441,667 |

To eliminate the investment amount and create noncontrolling interest account

| | | | |
|---|---|---|---|
| (3) | Beginning Retained Earnings-Palm Inc. | 90,000 | |
| | Noncontrolling Interest | 10,000 | |
| | Land | 400,000 | |
| | Difference between Implied and Book Value | | 166,667 |
| | Gain on Acquisition | | 300,000 |
| | Noncontrolling Interest | | 33,333 |

To allocate and depreciate the difference between implied and book value

## Exercise 5-12 (continued)

**Part B**

| | | | |
|---|---|---|---|
| Palm Incorporated's Retained Earnings on 12/31/2012 | | | $2,000,000 |
| Palm Incorporated's share of the increase in Saxton Corporation's Retained Earnings from acquisition date to 12/31/2012 ($1,550,000 - $1,000,000) × 0.9 | | | 495,000 |
| Less the cumulative effect to 12/31/2012 of the amortization of the difference between implied and book value | | | |
| | 2011 | 2012 | |
| Current Assets (inventory) | $90,000 | $0 | |
| Gain | (300,000) | (0) | |
| Total | $(210,000) | $(0) | 210,000 |
| Consolidated Retained Earnings on 12/31/2012 | | | $2,705,000 |

## Exercise 5-13

| | | Net Assets |
|---|---|---|
| Imputed Value ($2,070,000/0.9) | | $2,300,000 |
| Recorded Value ($1,200,000 + $600,000) | | 1,800,000 |
| Unrecorded Values | | $500,000 |
| Allocated to identifiable assets | | |
| Inventory ($725,000 - $600,000) | $125,000 | |
| Equipment ($1,075,000 - $900,000) | 175,000 | |
| 300,000 | | |
| Goodwill | | $200,000 |

| | | |
|---|---|---|
| Inventory | 125,000 | |
| Equipment | 175,000 | |
| Goodwill | 200,000 | |
| Revaluation Capital | | 500,000 |

## Exercise 5-14

### Part A

Computation and Allocation of Difference Schedule

| | Parent Share | Non-Controlling Share | Entire Value |
|---|---|---|---|
| Purchase price and implied value | **$3,750,000** | **416,667** | 4,166,667 * |
| Less: Book value of equity acquired | 3,600,000 | 400,000 | **4,000,000** |
| Difference between implied and book value | 150,000 | 16,667 | **166,667** |
| Inventory | (90,000) | (10,000) | **(100,000)** |
| Land | (360,000) | (40,000) | (**400,000)** |
| Balance (excess of FV over implied value) | (300,000) | (33,333) | (333,333) |
| Gain | **300,000** | | |
| Increase Noncontrolling interest to fair value of assets | | **33,333** | |
| Total allocated bargain | | | 333,333 |
| Balance | -0- | -0- | -0- |

*$3,750,000/.90

Investment in Saxton Corporation (Partial Equity)

| | | | |
|---|---|---|---|
| Cost of investment | 3,750,000 | P | |
| 2011 equity income (.9)($250,000) | 225,000 | 2011 Dividends | 0 |
| Balance 2011 | 3,975,000 | | |
| 2012 equity income (.9)($300,000) | 270,000 | 2012 Dividends | 0 |
| Balance 2012 | 4,245,000 | | |

| | | | |
|---|---|---|---|
| (1) | Equity in Subsidiary Income | 270,000 | |
| | Investment in Saxton Corporation. | | 270,000 |
| | To eliminate subsidiary income ($270,000) | | |
| (2) | Beginning Retained Earnings-Saxton Co. | 1,250,000 | |
| | Capital Stock- Saxton Co | 3,000,000 | |
| | Difference between Implied and Book Value | 166,667 | |
| | Investment in Saxton Co. ($3,750,000 + $225,000) | | 3,975,000 |
| | Noncontrolling Interest $416,667 + [($1,250,000 – $1,000,000) x .10] | | 441,667 |
| | To eliminate the investment amount and create noncontrolling interest account | | |
| (3) | Beginning Retained Earnings-Palm Inc. | 90,000 | |
| | Noncontrolling Interest | 10,000 | |
| | Land | 400,000 | |
| | Difference between Implied and Book Value | | 166,667 |
| | Gain on Acquisition | | 300,000 |
| | Noncontrolling Interest | | 33,333 |
| | To allocate and depreciate the difference between implied and book value | | |

**Exercise 5-14 (continued)**

| | | 2011 | 2012 | |
|---|---|---|---|---|
| **Part B** | Palm Incorporated's Retained Earnings on 12/31/2012 | | | $2,495,000 |
| | Less the cumulative effect to 12/31/2012 of the amortization of the difference between implied and book value | | | |
| | Current Assets (inventory) | $90,000 | $0 | |
| | Gain | (300,000) | (0) | |
| | Total | $(210,000) | $(0) | 210,000 |
| | Consolidated Retained Earnings on 12/31/2012 | | | $2,705,000 |

**Exercise 5-15**

**Part A**

Computation and Allocation of Difference Schedule

| | Parent Share | Non-Controlling Share | Entire Value |
|---|---|---|---|
| Purchase price and implied value | **$3,750,000** | **416,667** | 4,166,667 * |
| Less: Book value of equity acquired | 3,600,000 | 400,000 | **4,000,000** |
| Difference between implied and book value | 150,000 | 16,667 | **166,667** |
| Inventory | (90,000) | (10,000) | **(100,000)** |
| Land | (360,000) | (40,000) | **(400,000)** |
| Balance (excess of FV over implied value) | (300,000) | (33,333) | (333,333) |
| Gain | **300,000** | | |
| Increase Noncontrolling interest to fair value of assets | | **33,333** | |
| Total allocated bargain | | | 333,333 |
| Balance | -0- | -0- | -0- |

*$3,750,000/.90

Investment in Saxton Corporation

| | | | |
|---|---|---|---|
| Cost of investment | 3,750,000P | | |
| 2011 equity income (.9)($250,000) | 225,000 | 2011 Dividends | 0 |
| | | 2011 amortization (equity income) | 75,000 |
| Balance 2011 | 3,900,000 | | |
| 2012 equity income (.9)($300,000) | 270,000 | 2012 Dividends | 0 |
| | | 2012 amortization (equity income) | 15,000 |
| Balance 2012 | 4,155,000 | | |

**Exercise 5-15 (continued)**

| | | | |
|---|---|---|---|
| (1) | Equity in Subsidiary Income | 255,000 | |
| | Investment in Saxton Corporation. | | 255,000 |
| | To eliminate subsidiary income ((.90)($300,000) - $15,000) | | |

| | | | |
|---|---|---|---|
| (2) | Beginning Retained Earnings-Saxton Co. | 1,250,000 | |
| | Capital Stock- Saxton Co. | 3,000,000 | |
| | Difference between Implied and Book Value | 166,667 | |
| | Investment in Saxton Co. | | 3,975,000 |
| | Noncontrolling Interest [$416,667 + ($1,250,000 – 1,000,000) x .10] | | 441,667 |

To eliminate the investment amount and create noncontrolling interest account

| | | | |
|---|---|---|---|
| (3) | Investment in Saxton Co. | 90,000 | |
| | Noncontrolling Interest | 10,000 | |
| | Land | 400,000 | |
| | Difference between Implied and Book Value | | 166,667 |
| | Beginning Retained Earnings-P (gain on acquisition) | | 300,000 |
| | Noncontrolling Interest | | 33,333 |

To allocate and depreciate the difference between implied and book value

| | | |
|---|---|---|
| **Part B** | Palm Incorporated's Retained Earnings on 12/31/2012 | $2,705,000 |
| | Consolidated Retained Earnings on 12/31/2012 | $2,705,000 |

Under the complete equity method, Palm's retained earnings will equal consolidated retained earnings.

**Exercise 5-16**

**Part A.**

| | | | | |
|---|---|---|---|---|
| **2011**: | **Step 1**: | Fair value of the reporting unit | | $400,000 |
| | | Carrying value of unit: | | |
| | | Carrying value of identifiable net assets | $330,000 | |
| | | Carrying value of goodwill ($450,000 - $375,000) | 75,000 | |
| | | | | 405,000 |
| | | Excess of carrying value over fair value | | $ 5,000 |

The excess of carrying value over fair value means that step 2 is required.

| | | |
|---|---|---|
| **Step 2:** | Fair value of the reporting unit | $400,000 |
| | Fair value of identifiable net assets | 340,000 |
| | Implied value of goodwill | 60,000 |
| | Recorded value of goodwill ($450,000 - $375,000) | 75,000 |
| | Impairment loss | $ 15,000 |

**Exercise 5-16 (continued)**

| | | | |
|---|---|---|---|
| **2012**: | **Step 1**: Fair value of the reporting unit | | $400,000 |
| | Carrying value of unit: | | |
| | Carrying value of identifiable net assets | $320,000 | |
| | Carrying value of goodwill ($75,000 - $15,000) | 60,000 | |
| | | | 380,000 |
| | Excess of fair value over carrying value | | $ 20,000 |

The excess of fair value over carrying value means that step 2 is **not** required.

| | | | |
|---|---|---|---|
| **2013**: | **Step 1**: Fair value of the reporting unit | | $350,000 |
| | Carrying value of unit: | | |
| | Carrying value of identifiable net assets | $300,000 | |
| | Carrying value of goodwill ($75,000 - $15,000) | 60,000 | |
| | | | 360,000 |
| | Excess of carrying value over fair value | | $ 10,000 |

The excess of carrying value over fair value means that step 2 is required.

| | | |
|---|---|---|
| **Step 2**: | Fair value of the reporting unit | $350,000 |
| | Fair value of identifiable net assets | 325,000 |
| | Implied value of goodwill | 25,000 |
| | Recorded value of goodwill ($75,000 - $15,000) | 60,000 |
| | Impairment loss | $ 35,000 |

**Part B.**

| | | | |
|---|---|---|---|
| **1.** 2011: | Impairment Loss—Goodwill | 15,000 | |
| | Goodwill | | 15,000 |
| 2012: | Retained Earnings-Porsche | 15,000 | |
| | Goodwill | | 15,000 |
| 2013: | Impairment Loss—Goodwill | 35,000 | |
| | Retained Earnings – Porsche | 15,000 | |
| | Goodwill | | 50,000 |
| **2.** 2011: | Impairment Loss—Goodwill | 15,000 | |
| | Goodwill | | 15,000 |
| 2012: | Investment in Saab | 15,000 | |
| | Goodwill | | 15,000 |
| 2013: | Impairment Loss—Goodwill | 35,000 | |
| | Investment in Saab | 15,000 | |
| | Goodwill | | 50,000 |

## ANSWERS TO PROBLEMS

### Problem 5-1

**Calculations:**

Computation and Allocation of Difference Schedule

| | Parent Share | Non-Controlling Share | Entire Value |
|---|---|---|---|
| Purchase price and implied value | **$2,800,000** | **700,000** | 3,500,000 * |
| Less: Book value of equity acquired | 1,200,000 | 300,000 | **1,500,000** |
| Difference between implied and book value | 1,600,000 | 400,000 | **2,000,000** |
| Equipment (net) ($1,500,000 - $600,000) | (720,000) | (180,000) | **(900,000)** |
| Balance | 880,000 | 220,000 | 1,100,000 |
| Goodwill | (880,000) | (220,000) | **(1,100,000)** |
| Balance | -0- | -0- | -0- |

*$2,800,000/.80

| | |
|---|---|
| Depreciation of difference allocated to Palmero ($720,000/10) | $72,000 |
| Depreciation of difference allocated to Santos ($180,000/10) | $18,000 |

**Part A** **2011**

| | | | |
|---|---|---|---|
| (1) | Beginning Retained Earnings-Santos Co. | 1,000,000 | |
| | Capital Stock- Santos Co. | 500,000 | |
| | Difference between Implied and Book Value | 2,000,000 | |
| | Investment in Santos Co. | | 2,800,000 |
| | Noncontrolling Interest | | 700,000 |

To eliminate investment account and create noncontrolling interest account

| | | | |
|---|---|---|---|
| (2) | Depreciation Expense | 90,000 | |
| | Property and Equipment (net) ($900,000 - $90,000) | 810,000 | |
| | Goodwill | 1,100,000 | |
| | Difference between Implied and Book Value | | 2,000,000 |

To allocate and depreciate the difference between implied and book value

Alternative to entry (2)

| | | | |
|---|---|---|---|
| (2a) | | | |
| | Property and Equipment (net) | 900,000 | |
| | Goodwill | 1,100,000 | |
| | Difference between Implied and Book Value | | 2,000,000 |
| (2b) | Depreciation Expense | 90,000 | |
| | Property and Equipment (net) | | 90,000 |

**Problem 5-1 (continued)**

**2012**

| | | |
|---|---|---|
| (1) Investment in Santos Company ($300,000 × 0.80) | 240,000 | |
| Beginning Retained Earnings-Palmero Co. | | 240,000 |
| To establish reciprocity/convert to equity as of 1/1/2012 | | |
| | | |
| (2) Beginning Retained Earnings-Santos Company | 1,300,000 | |
| Capital Stock-Santos Company | 500,000 | |
| Difference between Implied and Book Value | 2,000,000 | |
| Investment in Santos Company ($2,800,000 + $240,000) | | 3,040,000 |
| Noncontrolling Interest $700,000 + [($1,300,000 – $1,000,000) x 0.20] | | 760,000 |
| To eliminate investment account. | | |
| | | |
| (3) Beginning Retained Earnings-Palmero Co. | 72,000 | |
| Noncontrolling Interest | 18,000 | |
| Depreciation Expense | 90,000 | |
| Property and Equipment (net) ($900,000 - $90,000 - $90,000) | 720,000 | |
| Goodwill | 1,100,000 | |
| Difference between Implied and Book Value | | 2,000,000 |
| To allocate and depreciate the difference between implied and book value | | |

Alternative to entry (3)

| | | |
|---|---|---|
| (3a) | | |
| Property and Equipment (net) | 900,000 | |
| Goodwill | 1,100,000 | |
| Difference between Implied and Book Value | | 2,000,000 |
| | | |
| (3b) Beginning Retained Earnings-Palmero Co. | 72,000 | |
| Noncontrolling Interest | 18,000 | |
| Depreciation Expense | 90,000 | |
| Property and Equipment (net) | | 180,000 |

**Problem 5-1 (continued)**

| **Part B** Controlling Interest in Consolidated Net Income | 2011 | 2012 |
|---|---|---|
| Palmero Company's Net Income from Independent Operations | $400,000 | $425,000 |
| Palmero Company's Share of Reported Income of Santos Company | 240,000 | 320,000 |
| Less: Depreciation of Difference between Implied and Book Value Allocated to: | | |
| Property and Equipment | (72,000) | (72,000) |
| Controlling Interest in Consolidated Net Income | $568,000 | $673,000 |

Noncontrolling Interest in Consolidated Income (2011)

| | | | |
|---|---|---|---|
| Amortization of the difference between implied and book value related to equipment ($900,000/10) | 90,000 | Net income reported by Santos | $ 300,000 |
| | | Adjusted net income of Santos | 210,000 |
| | | Noncontrolling Ownership percentage interest | 20% |
| | | Noncontrolling Interest in Consolidated Net Income | $ 42,000 |

Controlling Interest in Consolidated Income (2011)

| | | |
|---|---|---|
| | Palmero Company's net income from its independent operations | $ 400,000 |
| | Palmero Company's share of the adjusted income of Santos Company (.8 X $210,000) | 168,000 |
| | Controlling Interest in Consolidated Net Income | $ 568,000 |

Noncontrolling Interest in Consolidated Income (2012)

| | | | |
|---|---|---|---|
| Amortization of the difference between implied and book value related to equipment ($900,000/10) | 90,000 | Net income reported by Santos | $ 400,000 |
| | | Adjusted net income of Santos | 310,000 |
| | | Noncontrolling Ownership percentage interest | 20% |
| | | Noncontrolling Interest in Consolidated Net Income | $ 62,000 |

**Problem 5-1 (continued)**

Controlling Interest in Consolidated Income (2012)

| | | |
|---|---|---|
| | Palmero Company's net income from its independent operations | $ 425,000 |
| | Palmero Company's share of the adjusted income of Santos Company (.8 X $310,000) | 248,000 |
| | Controlling Interest in Consolidated Net Income | $ 673,000 |

**Problem 5-2**

Computation and Allocation of Difference Schedule

| | Parent Share | Non-Controlling Share | Entire Value |
|---|---|---|---|
| Purchase price and implied value | **$1,300,000** | **557,143** | 1,857,143 * |
| Less: Book value of equity acquired | 1,050,000 | 450,000 | **1,500,000** |
| Difference between implied and book value | 250,000 | 107,143 | **357,143** |
| Unamortized Discount on Bonds Payable | (106,143) | (45,490) | **(151,633)** |
| Balance | 143,857 | 61,653 | 205,510 |
| Goodwill | (143,857) | (61,653) | **(205,510)** |
| Balance | -0- | -0- | -0- |

*$1,300,000/.70

| Present Value on 1/1/2011 of 6% Bonds Payable | |
|---|---|
| Discounted at 10%, 5 periods | |
| Principal ($1,000,000 × 0.62092) | $620,920 |
| Interest ($60,000 × 3.79079) | 227,447 |
| Fair value of bonds | $848,367 |
| Face value of bonds | 1,000,000 |
| Total Discount | $151,633 |

Amortization of amount of difference between implied and book value allocated to unamortized discount on bonds payable

| (1)<br>Year | (2)<br>Carrying<br>Value (1/1) | (3)<br>Interest at 10%<br>of Carrying Value | (4)<br>Interest at 6%<br>of Par Value | (5)<br>Difference<br>[(3)-(4)] |
|---|---|---|---|---|
| 2011 | $848,367 | $84,837 | $60,000 | $24,837 |
| 2012 | $873,204 | $87,320 | $60,000 | $27,320 |

**Problem 5-2 (continued)**

**Part A** **2011**

| | | |
|---|---|---|
| (1) Equity in Subsidiary Income (.70)($100,000) | 70,000 | |
| Investment in Sagon Co. | | 70,000 |
| To eliminate subsidiary income | | |
| | | |
| (2) Beginning Retained Earnings-Sagon Co. | 500,000 | |
| Capital Stock- Sagon Co. | 1,000,000 | |
| Difference between Implied and Book Value | 357,143 | |
| Investment in Sagon Co. | | 1,300,000 |
| Noncontrolling Interest | | 557,143 |
| To eliminate investment amount and create noncontrolling interest account | | |
| | | |
| (3) Interest Expense | 24,837 | |
| Unamortized Discount on Bonds Payable ($151,633 - $24,837) | 126,796 | |
| Goodwill | 205,510 | |
| Difference between Implied and Book Value | | 357,143 |
| To allocate and amortize the difference between Implied and book value | | |

Alternative to entry (3)

| | | |
|---|---|---|
| (3a) Unamortized Discount on Bonds Payable | 151,633 | |
| Goodwill | 205,510 | |
| Difference between Implied and Book Value | | 357,143 |
| | | |
| (3b) Interest Expense | 24,837 | |
| Unamortized Discount on Bonds Payable | | 24,837 |

**2012**

| | | |
|---|---|---|
| (1) Equity in Subsidiary Income (.70)($120,000) | 84,000 | |
| Investment in Sagon Co. | | 84,000 |
| To eliminate subsidiary income | | |
| | | |
| (2) Beginning Retained Earnings-Sagon Company | 600,000 | |
| Common Stock- Sagon Company | 1,000,000 | |
| Difference between Implied and Book Value | 357,143 | |
| Investment in Sagon Company ($1,300,000 + $70,000) | | 1,370,000 |
| Noncontrolling Interest ($557,143 + ($600,000 – $500,000) x 0.30) | | 587,143 |
| To eliminate the investment account and create noncontrolling interest account | | |
| | | |
| (3) Beginning Retained Earnings-Paxton Company | 17,386 * | |
| Noncontrolling Interest | 7,451 | |
| Interest Expense | 27,320 | |
| Unamortized Discount on Bonds Payable ($151,633 - $24,837 - $27,320) | 99,476 | |
| Goodwill | 205,510 | |
| Difference between Implied and Book Value | | 357,143 |
| To allocate and amortize the difference between implied and book value | | |

*$24,837 x 70% = $17,386

Alternative to entry (3)

**Problem 5-2 (continued)**

| | | |
|---|---|---|
| (3a) Unamortized Discount on Bonds Payable | 151,633 | |
| Goodwill | 205,510 | |
| Difference between Implied and Book Value | | 357,143 |
| (3b) Beginning Retained Earnings-Paxton Company | 17,386 | |
| Noncontrolling Interest | 7,451 | |
| Interest Expense | 27,320 | |
| Unamortized Discount on Bonds Payable | | 52,157 |
| (4) Impairment Loss – Goodwill** | 25,510 | |
| Goodwill | | 25,510 |

| | | |
|---|---|---|
| ****Step 1**: Fair value of the reporting unit | | $1,500,000 |
| Carrying value of unit: | | |
| Carrying value of identifiable net assets | $1,409,000 | |
| Carrying value of goodwill | 205,510 | |
| | | 1,614,510 |
| Excess of carrying value over fair value | | $ 114,510 |

The excess of carrying value over fair value means that step 2 is required.

| | |
|---|---|
| **Step 2:** Fair value of the reporting unit | $1,500,000 |
| Fair value of identifiable net assets | 1,320,000 |
| Implied value of goodwill | 180,000 |
| Recorded value of goodwill | 205,510 |
| Impairment loss | $ 25,510 |

| **Part B** Controlling Interest in Consolidated Net Income | 2011 | 2012 |
|---|---|---|
| Paxton Company's Net Income from Independent Operations | $300,000 | $250,000 |
| Paxton Company's Share of Reported Income of Sagon Company | 70,000 | 84,000 |
| Less: Amortization of Difference between Implied and Book Value Allocated to: | | |
| Bonds Payable | (17,386) | (19,124)* |
| Controlling Interest in Consolidated Net Income | $352,614 | $314,876 |

* $27,320 x 70% = $19,124

**Problem 5-2 (continued)**

Noncontrolling Interest in Consolidated Income (2011)

| | | | |
|---|---|---|---|
| Amortization of the difference between implied and book value related to bonds payable | 24,837 | Net income reported by Sagon | $ 100,000 |
| | | Adjusted net income of Sagon | 75,163 |
| | | Noncontrolling Ownership percentage interest | 30% |
| | | Noncontrolling Interest in Consolidated Net Income | $ 22,549 |

Controlling Interest in Consolidated Income (2011)

| | | | |
|---|---|---|---|
| | | Paxton Company's net income from its independent operations | $ 300,000 |
| | | Paxton Company's share of the adjusted income of Sagon Company (.7 X $75,163) | 52,614 |
| | | Controlling interest in Consolidated Net Income | $ 352,614 |

Noncontrolling Interest in Consolidated Income (2012)

| | | | |
|---|---|---|---|
| Amortization of the difference between implied and book value related to bonds payable | 27,320 | Net income reported by S | $ 120,000 |
| Goodwill Impairment | 25,510 | | |
| | | Adjusted net income of S | 67,170 |
| | | Noncontrolling Ownership percentage interest | 30% |
| | | Noncontrolling Interest in Consolidated Net Income | $ 20,151 |

Controlling Interest in Consolidated Income (2012)

| | | | |
|---|---|---|---|
| | | Paxton Company's net income from its independent operations | $ 250,000 |
| | | Paxton Company's share of the adjusted income of Sagon Company (.7 X $67,170) | 47,019 |
| | | Controlling interest in Consolidated Net Income | $ 297,019 |

**Problem 5-3**

Computation and Allocation of Difference Schedule

| | Parent Share | Non-Controlling Share | Entire Value |
|---|---|---|---|
| Purchase price and implied value | **$1,970,000** | **492,500** | 2,462,500 * |
| Less: Book value of equity acquired | 1,440,000 | 360,000 | **1,800,000** |
| Difference between implied and book value | 530,000 | 132,500 | **662,500** |
| Inventory ($725,000 - $600,000) | (100,000) | (25,000) | **(125,000)** |
| Equipment ($1,075,000 - $900,000) | (140,000) | (35,000) | **(175,000)** |
| Balance | 290,000 | 72,500 | 362,500 |
| Goodwill | (290,000) | (72,500) | **(362,500)** |
| Balance | -0- | -0- | -0- |

*$1,970,000/.80

| 2012 Amortization Schedule | | | |
|---|---|---|---|
| Inventory (60% in 2012) | 60,000 | 15,000 | **75,000** |
| Equipment ($175,000/7) | 20,000 | 5,000 | **25,000** |
| Total | 80,000 | 20,000 | 100,000 |

| 2013 Amortization Schedule | | | |
|---|---|---|---|
| Inventory (40% in 2013) | 40,000 | 10,000 | **50,000** |
| Equipment ($175,000/7) | 20,000 | 5,000 | **25,000** |
| Total | 60,000 | 15,000 | 75,000 |

**Part A** **2012**

| | | |
|---|---|---|
| Investment in Superstition Company | 1,970,000 | |
| Cash | | 1,970,000 |
| Cash (0.8 × $150,000) | 120,000 | |
| Investment in Superstition Company | | 120,000 |
| Investment in Superstition Company | 600,000 | |
| Equity in Subsidiary Income (.80)($750,000) | | 600,000 |
| Equity in Subsidiary Income | 80,000 | |
| Investment in Superstition Company | | 80,000 |

**2013**

| | | |
|---|---|---|
| Cash (0.8 × $225,000) | 180,000 | |
| Investment in Superstition Company | | 180,000 |
| Investment in Superstition Company | 720,000 | |
| Equity in Subsidiary Income (.80)($900,000) | | 720,000 |
| Equity in Subsidiary Income | 60,000 | |
| Investment in Superstition Company | | 60,000 |

**Problem 5-3 (continued)**

**Part B** **2012**

| | | |
|---|---|---|
| (1) Equity in Subsidiary Income ((.80)($750,000) - $80,000) | 520,000 | |
| Dividends Declared (0.80 × $150,000) | | 120,000 |
| Investment in Superstition Company | | 400,000 |

To eliminate intercompany income and dividends

| | | |
|---|---|---|
| (2) Beginning Retained Earnings - Superstition Company | 600,000 | |
| Common Stock- Superstition Company | 1,200,000 | |
| Difference between Implied and Book Value | 662,500 | |
| Investment in Superstition Company | | 1,970,000 |
| Noncontrolling Interest | | 492,500 |

To eliminate the investment account and create noncontrolling interest account

| | | |
|---|---|---|
| (3) Inventory ($125,000 - $75,000) | 50,000 | |
| Cost of Goods Sold | 75,000 | |
| Depreciation Expense | 25,000 | |
| Equipment (net) ($175,000 - $25,000) | 150,000 | |
| Goodwill | 362,500 | |
| Difference between Implied and Book Value | | 662,500 |

To allocate and depreciate the difference between implied and book value

Alternative to entry (3)

| | | |
|---|---|---|
| (3a) Inventory | 50,000 | |
| Cost of Good Sold | 75,000 | |
| Equipment (net) | 175,000 | |
| Goodwill | 362,500 | |
| Difference between Implied and Book Value | | 662,500 |

| | | |
|---|---|---|
| (3b) Depreciation Expense | 25,000 | |
| Equipment (net) | | 25,000 |

**2013**

| | | |
|---|---|---|
| (1) Equity in Subsidiary Income ((.80)($900,000) - $60,000) | 660,000 | |
| Dividends Declared (0.80 × $225,000) | | 180,000 |
| Investment in Superstition Company | | 480,000 |

To eliminate intercompany income and dividends

| | | |
|---|---|---|
| (2) Beginning Retained Earnings-Superstition Company | 1,200,000 | |
| Common Stock - Superstition Company. | 1,200,000 | |
| Difference between Implied and Book Value | 662,500 | |
| Investment in Superstition Company ($1,970,000 + $480,000) | | 2,450,000 |
| Noncontrolling Interest ($492,500 + ($1,200,000 – $600,000) x .20) | | 612,500 |

To eliminate investment account and create noncontrolling interest account

**Problem 5-3 (continued)**

| | | | |
|---|---|---|---|
| (3) | Investment in Superstition Company ($60,000 + $20,000) | 80,000 | |
| | Noncontrolling Interest ($15,000 + $5,000) | 20,000 | |
| | Cost of Good Sold | 50,000 | |
| | Depreciation Expense | 25,000 | |
| | Equipment (net) ($175,000 – $25,000 – $25,000) | 125,000 | |
| | Goodwill | 362,500 | |
| | Difference between Implied and Book Value | | 662,500 |

To allocate and depreciate the difference between implied and book value

Alternative to entry (3)

| | | | |
|---|---|---|---|
| (3a) | Investment in Superstition Company | 60,000 | |
| | Noncontrolling Interest | 15,000 | |
| | Cost of Good Sold | 50,000 | |
| | Equipment (net) | 175,000 | |
| | Goodwill | 362,500 | |
| | Difference between Implied and Book Value | | 662,500 |
| (3b) | Investment in Superstition Company | 20,000 | |
| | Noncontrolling Interest | 5,000 | |
| | Depreciation Expense | 25,000 | |
| | Equipment (net) | | 50,000 |

**Part C**

| | |
|---|---|
| Perke Corporation's Net Income from Independent Operations ($1,000,000 - $120,000) | $880,000 |
| Perke Corporation's Share of Superstition Company's net income (0.8 × $750,000) | 600,000 |
| Less: Assignment, amortization, and depreciation of: | |
| Inventory | (60,000) |
| Equipment | (20,000) |
| Controlling Interest in Consolidated Net Income | $1,400,000 |

## Problem 5-4
## Part A

Computation and Allocation of Difference Schedule

| | Parent Share | Non-Controlling Share | Entire Value |
|---|---|---|---|
| Purchase price and implied value | **$850,000** | **212,500** | 1,062,500 * |
| Less: Book value of equity acquired | 504,000 | 126,000 | **630,000** |
| Difference between implied and book value | 346,000 | 86,500 | **432,500** |
| Equipment | (104,000) | (26,000) | **(130,000)** |
| Land | (52,000) | (13,000) | **(65,000)** |
| Inventory | (32,000) | (8,000) | **(40,000)** |
| Balance | 158,000 | 39,500 | 197,500 |
| Goodwill | (158,000) | (39,500) | (**197,500)** |
| Balance | -0- | -0- | -0- |

*$850,000/.80

## Part B and C – Worksheet Entries

**Cost Method Workpaper entries – Year 2010**

| | | |
|---|---|---|
| (1) Dividend Income ($25,000 × .80) | 20,000 | |
| Dividends Declared | | 20,000 |
| To eliminate intercompany dividends | | |
| | | |
| (2) Beginning Retained Earnings - Salem Co. | 80,000 | |
| Common Stock - Salem | 550,000 | |
| Difference between Implied and Book Value | 432,500 | |
| Investment in Salem Company | | 850,000 |
| Noncontrolling Interest | | 212,500 |
| To eliminate investment account and create noncontrolling interest account | | |
| | | |
| (3) Cost of Goods Sold | 40,000 | |
| Land | 65,000 | |
| Plant and Equipment (5 year life) | 130,000 | |
| Goodwill | 197,500 | |
| Difference between Implied and Book Value | | 432,500 |
| To allocate the difference between implied and book value | | |
| | | |
| (4) Depreciation Expense ($130,000/5) | 26,000 | |
| Plant and Equipment | | 26,000 |

**Problem 5-4 (continued)**

**Cost Method – Worksheet Entries – Year 2011**

| | | |
|---|---|---|
| (1) Investment in Salem Company (.80 × ($100,000 - $25,000)) | 60,000 | |
| Beginning Retained Earnings - Porter Co. | | 60,000 |
| To establish reciprocity/convert to equity as of 1/1/2011 | | |
| (2) Dividend Income ($35,000 × .80) | 28,000 | |
| Dividends Declared | | 28,000 |
| To eliminate intercompany dividends | | |
| (3) Beginning Retained Earnings - Salem Co.($80,000 + $100,000 – $25,000) | 155,000 | |
| Common Stock - Salem | 550,000 | |
| Difference between Implied and Book Value | 432,500 | |
| Investment in Salem Company ($850,000 + $60,000) | | 910,000 |
| Noncontrolling Interest ($212,500 + ($155,000 – $80,000) × .2) | | 227,500 |
| To eliminate investment account and create noncontrolling interest account | | |
| (4) 1/1 Retained Earnings – Porter Company | 32,000 | |
| Noncontrolling Interest | 8,000 | |
| Land | 65,000 | |
| Plant and Equipment (5 year life) | 130,000 | |
| Goodwill | 197,500 | |
| Difference between Implied and Book Value | | 432,500 |
| To allocate the difference between implied and book value | | |
| (5) 1/1 Retained Earnings – Porter Company (previous year's amount) | 20,800 | |
| Noncontrolling Interest | 5,200 | |
| Depreciation Expense ($130,000/5) | 26,000 | |
| Plant and Equipment | | 52,000 |

**Partial Equity Method Workpaper entries – Year 2010**

| | | |
|---|---|---|
| (1) Equity in Subsidiary Income ($100,000)(.80) | 80,000 | |
| Dividends Declared ($25,000 × .80) | | 20,000 |
| Investment in Salem Company | | 60,000 |
| To eliminate intercompany dividends | | |
| (2) Beginning Retained Earnings - Salem Co. | 80,000 | |
| Common Stock - Salem | 550,000 | |
| Difference between Implied and Book Value | 432,500 | |
| Investment in Salem Company | | 850,000 |
| Noncontrolling Interest | | 212,500 |
| To eliminate investment account and create noncontrolling interest account | | |

**Problem 5-4 (continued)**

| | | |
|---|---|---|
| (3) Cost of Goods Sold | 40,000 | |
| Land | 65,000 | |
| Plant and Equipment (5 year life) | 130,000 | |
| Goodwill | 197,500 | |
| Difference between Implied and Book Value | | 432,500 |
| To allocate the difference between implied and book value | | |
| | | |
| (4) Depreciation Expense ($130,000/5) | 26,000 | |
| Plant and Equipment | | 26,000 |

**Partial Equity Method – Worksheet Entries – Year 2011**

| | | |
|---|---|---|
| (1) Equity in Subsidiary Income ($110,000)(.80) | 88,000 | |
| Dividends Declared ($35,000 × .80) | | 28,000 |
| Investment in Salem Company | | 60,000 |
| To eliminate intercompany dividends and income | | |
| | | |
| (2) Beginning Retained Earnings - Salem Co. | 155,000 | |
| Common Stock - Salem | 550,000 | |
| Difference between Implied and Book Value | 432,500 | |
| Investment in Salem Company ($850,000 + $80,000 – $20,000) | | 910,000 |
| Noncontrolling Interest ($212,500 + ($155,000 – $80,000) × .2) | | 227,500 |
| To eliminate investment account and create noncontrolling interest account | | |
| | | |
| (3) 1/1 Retained Earnings – Porter Company | 32,000 | |
| Noncontrolling Interest | 8,000 | |
| Land | 65,000 | |
| Plant and Equipment (5 year life) | 130,000 | |
| Goodwill | 197,500 | |
| Difference between Implied and Book Value | | 432,500 |
| To allocate the difference between implied and book value | | |
| | | |
| (4) 1/1 Retained Earnings – Porter Company (previous year's amount) | 20,800 | |
| Noncontrolling Interest | 5,200 | |
| Depreciation Expense ($130,000/5) | 26,000 | |
| Plant and Equipment | | 52,000 |

**Complete Equity Method Workpaper entries – Year 2010**

| | | |
|---|---|---|
| (1) Equity in Subsidiary Income ($100,000)(.80) – $32,000 – $20,800 | 27,200 | |
| Dividends Declared ($25,000 × .80) | | 20,000 |
| Investment in Salem Company | | 7,200 |
| To eliminate intercompany dividends | | |

**Problem 5-4 (continued)**

| | | |
|---|---|---|
| (2) Beginning Retained Earnings - Salem Co. | 80,000 | |
| Common Stock - Salem | 550,000 | |
| Difference between Implied and Book Value | 432,500 | |
| Investment in Salem Company | | 850,000 |
| Noncontrolling Interest | | 212,500 |
| To eliminate investment account and create noncontrolling interest account | | |
| (3) Cost of Goods Sold | 40,000 | |
| Land | 65,000 | |
| Plant and Equipment (5 year life) | 130,000 | |
| Goodwill | 197,500 | |
| Difference between Implied and Book Value | | 432,500 |
| To allocate the difference between implied and book value | | |
| (4) Depreciation Expense ($130,000/5) | 26,000 | |
| Plant and Equipment | | 26,000 |

**Complete Equity Method – Worksheet Entries – Year 2011**

| | | |
|---|---|---|
| (1) Equity in Subsidiary Income ($110,000)(.80) - $20,800 | 67,200 | |
| Dividends Declared ($35,000 × .80) | | 28,000 |
| Investment in Salem Company | | 39,200 |
| To eliminate intercompany dividends and income | | |
| (2) Beginning Retained Earnings - Salem Co. ($80,000 + $75,000) | 155,000 | |
| Common Stock - Salem | 550,000 | |
| Difference between Implied and Book Value | 432,500 | |
| Investment in Salem Company ($850,000 + $80,000 – $20,000) | | 910,000 |
| Noncontrolling Interest ($212,500 + ($155,000 – $80,000) × .2) | | 227,500 |
| To eliminate investment account and create noncontrolling interest account | | |
| (3) Investment in Salem Company | 32,000 | |
| Noncontrolling Interest | 8,000 | |
| Land | 65,000 | |
| Plant and Equipment (5 year life) | 130,000 | |
| Goodwill | 197,500 | |
| Difference between Implied and Book Value | | 432,500 |
| To allocate the difference between implied and book value | | |
| (4) Investment in Salem Company | 20,800 | |
| Noncontrolling Interest | 5,200 | |
| Depreciation Expense ($130,000/5) | 26,000 | |
| Plant and Equipment | | 52,000 |

**Problem 5-4 (continued)**

**Part D**

| | Porter | Salem | Eliminations | | Noncontrolling | Consolidated |
|---|---|---|---|---|---|---|
| **Income Statement** | Company | Company | Debit | Credit | Interest | Balances |
| Sales | $1,100,000 | $450,000 | | | | $1,550,000 |
| Dividend Income | 48,000 | | (2) 48,000 | | | |
| Total Revenue | 1,148,000 | 450,000 | | | | 1,550,000 |
| Cost of Goods Sold | 900,000 | 200,000 | | | | 1,100,000 |
| Depreciation Expense | 40,000 | 30,000 | (4b) 26,000 | | | 96,000 |
| Impairment loss | | | (5) 47,500 | | | 47,500 |
| Other Expenses | 60,000 | 50,000 | | | | 110,000 |
| Total Cost and Expense | 1,000,000 | 280,000 | | | | 1,353,500 |
| Net/Consolidated Income | 148,000 | 170,000 | | | | 196,500 |
| Noncontrolling Interest in Consolid. Income* | | | | | 19,300 | (19,300) |
| Net Income to Retained Earnings | $148,000 | $170,000 | $121,500 | | $19,300 | $177,200 |
| **Retained Earnings Statement** | | | | | | |
| 1/1 Retained Earnings: | | | | | | |
| Porter Company | $500,000 | | (4a) 32,000 | (1) $120,000 | | $546,400 |
| | | | (4b) 41,600 | | | |
| Salem Company | | 230,000 | (3) 230,000 | | | |
| Net Income from Above | 148,000 | 170,000 | 121,500 | | 19,300 | 177,200 |
| Dividends Declared: | | | | | | |
| Porter Company | (90,000) | | | | | (90,000) |
| Salem Company | | (60,000) | | (2) 48,000 | (12,000) | |
| 12/31 Retained Earnings to Balance Sheet | $558,000 | $340,000 | $425,100 | $168,000 | $7,300 | $633,600 |

**Problem 5-4 (continued)**

| | Porter | Salem | | Eliminations | | | Noncontrolling | Consolidated |
|---|---|---|---|---|---|---|---|---|
| **Balance Sheet** | Company | Company | | Debit | | Credit | Interest | Balances |
| Cash | $70,000 | $65,000 | | | | | | $135,000 |
| Accounts Receivable | 260,000 | 190,000 | | | | | | $450,000 |
| Inventory | 240,000 | 175,000 | | | | | | $415,000 |
| Investment in Salem Company | 850,000 | | (1) | 120,000 | (3) | 970,000 | | |
| Difference between Implied and Book Value | | | (3) | 432,500 | (4a) | 432,500 | | |
| Land | | 320,000 | (4a) | 65,000 | | | | 385,000 |
| Plant and Equipment | 360,000 | 280,000 | (4a) | 130,000 | (4b) | 78,000 | | 692,000 |
| Goodwill | | | (4a) | 197,500 | (5) | 47,500 | | 150,000 |
| Total Assets | $1,780,000 | $1,030,000 | | | | | | $2,227,000 |
| | | | | | | | | |
| Accounts Payable | $132,000 | $110,000 | | | | | | $242,000 |
| Notes Payable | 90,000 | 30,000 | | | | | | 120,000 |
| Common Stock: | | | | | | | | |
| Porter Company | 1,000,000 | | | | | | | 1,000,000 |
| Salem Company | | 550,000 | (3) | 550,000 | | | | |
| Retained Earnings from above | 558,000 | 340,000 | | 425,100 | | 168,000 | 7,300 | 633,600 |
| 1/1 Noncontrolling Interest in Net Assets | | | (4a) | 8,000 | (3) | 242,500 ** | 224,100 | |
| | | | (4b) | 10,400 | | | | |
| 12/31 Noncontrolling Interest in Net Assets | | | | | | | $231,400 | 231,400 |
| Total Liabilities and Equity | $1,780,000 | $1,030,000 | | $1,938,500 | | $1,938,500 | | $2,227,000 |

* Noncontrolling Interest in Income =.2 × $170,000 – (.2 x $26,000) – (.2 x $47,500) = $19,300
** $212,500 + ($230,000 – $80,000) x .20 = $242,500
Explanations of workpaper entries are on the following page.

## Problem 5-4D explanation

Computation and Allocation of Difference Schedule

| | Parent Share | Non-Controlling Share | Entire Value |
|---|---|---|---|
| Purchase price and implied value | **$850,000** | **212,500** | 1,062,500 |
| Less: Book value of equity acquired | 504,000 | 126,000 | **630,000** |
| Difference between implied and book value | 346,000 | 86,500 | **432,500** |
| Equipment | (104,000) | (26,000) | **(130,000)** |
| Land | (52,000) | (13,000) | **(65,000)** |
| Inventory | (32,000) | (8,000) | **(40,000)** |
| Balance | 158,000 | 39,500 | 197,500 |
| Goodwill | (158,000) | (39,500) | **(197,500)** |
| Balance | -0- | -0- | -0- |

Explanations of Workpaper entries:

| | | | |
|---|---|---|---|
| (1) | Investment in Salem Company [.80 × ($230,000 - $80,000)] | 120,000 | |
| | Beginning Retained Earnings - Porter Co. | | 120,000 |
| | To establish reciprocity/convert to equity method as of 1/1/12 | | |
| (2) | Dividend Income ($60,000 × .80) | 48,000 | |
| | Dividends Declared | | 48,000 |
| | To eliminate intercompany dividends | | |
| (3) | Beginning Retained Earnings - Salem Co. | 230,000 | |
| | Common Stock - Salem | 550,000 | |
| | Difference between Implied and Book Value | 432,500 | |
| | Investment in Salem Company ($850,000 + $120,000) | | 970,000 |
| | Noncontrolling Interest | | 242,500 |
| | To eliminate the investment account and create noncontrolling interest account | | |
| (4a) | Beginning Retained Earnings- Porter Company | 32,000 | |
| | Noncontrolling Interest | 8,000 | |
| | Land | 65,000 | |
| | Plant and Equipment | 130,000 | |
| | Goodwill | 197,500 | |
| | Difference between Implied and Book Value | | 432,500 |
| (4b) | Beginning Retained Earnings - Porter Company (two years) | 41,600 | |
| | Noncontrolling Interest (two years) | 10,400 | |
| | Depreciation Expense | 26,000 | |
| | Plant and Equipment | | 78,000 |

**Problem 5-4D explanation**

Alternative to entries (4a) and (4b)

| | | | |
|---|---|---|---|
| (4) | Beginning Retained Earnings - Porter Company [a] | 73,600 | |
| | Noncontrolling Interest [b] | 18,400 | |
| | Depreciation Expense | 26,000 | |
| | Land | 65,000 | |
| | Plant and Equipment [c] | 52,000 | |
| | Goodwill | 197,500 | |
| | Difference between Implied and Book Value | | 432,500 |
| | To allocate and depreciate the difference between implied and book value | | |

[a] ($32,000 + $20,800) + ($20,800) = $73,600

[b] ($8,000 + $5,200) + ($5,200) = $18,400

[c] ($130,000 - [3 × $26,000]) = $52,000

| | | | |
|---|---|---|---|
| (5) | Impairment Loss ($197,500 - $150,000) | 47,500 | |
| | Goodwill | | 47,500 |
| | To record goodwill impairment | | |

**Part E**

PORTER COMPANY AND SUBSIDIARY
Consolidated Financial Statements
For the Year Ended December 31, 2012

Consolidated Income Statement

| | | |
|---|---|---|
| Sales | | $1,550,000 |
| Cost of Goods Sold | | 1,100,000 |
| Gross Profit | | 450,000 |
| Expenses: | | |
| Depreciation Expense | $96,000 | |
| Impairment Loss | 47,500 | |
| Other Expenses | 110,000 | 253,500 |
| Consolidated Income | | 196,500 |
| Noncontrolling Interest in Consolidated Income | | 19,300 |
| Net Income | | $177,200 |

Consolidated Statement of Retained Earnings

| | |
|---|---|
| Retained Earnings - Beginning of Year | $546,400 |
| Add: Net Income | 177,200 |
| | 723,600 |
| Less Dividends | 90,000 |
| Retained Earnings - End of Year | $633,600 |

**Problem 5-4 (continued)**
**Part E**

PORTER COMPANY AND SUBSIDIARY
Consolidated Statement of Financial Position
December 31, 2012

| | | |
|---|---|---|
| Assets | | |
| Current Assets: | | |
| Cash | $135,000 | |
| Accounts Receivable | 450,000 | |
| Inventory | 415,000 | |
| $1,000,000 | | |
| Noncurrent Assets: | | |
| Plant and Equipment (net) | 692,000 | |
| Land | 385,000 | |
| Goodwill | 150,000 | |
| 1,227,000 | | |
| Total Assets | | $2,227,000 |
| | | |
| Liabilities And Stockholders' Equity | | |
| Liabilities: | | |
| Accounts Payable | | $242,000 |
| Notes Payable | | 120,000 |
| Total Liabilities | | 362,000 |
| Stockholders' Equity | | |
| Noncontrolling Interest in Net Assets | 231,400 | |
| Capital Stock | 1,000,000 | |
| Retained Earnings | 633,600 | |
| 1,865,000 | | |
| Total Liabilities and Stockholders' Equity | | $2,227,000 |

**Part F** Ending inventory would be higher by $40,000 if LIFO is assumed because it would not have been sold. Beginning controlling retained earnings and noncontrolling interest would also be $32,000 and $8,000 higher, because cost of goods sold in the year of acquisition was lower.

**Part G**

| | | | | |
|---|---|---|---|---|
| Porter Company's Retained Earnings on 12/31/12 | | | | $558,000 |
| Porter Company's Share of the Increase in Salem Company's Retained Earnings from January 1, 2010 to December 31, 2012 ($340,000 – $80,000) × .8 | | | | 208,000 |
| Cumulative Effect to December 31, 2012 of the Allocation and Depreciation of the Difference between Implied and Book value (Parent's share) | | | | |
| Allocated to: | | | | |
| | 2010 | 2011 | 2012 | |
| Inventory | $32,000 | $0 | $0 | |
| Equipment | 20,800 | 20,800 | 20,800 | |
| | $52,800 | $20,800 | $20,800 | (94,400) |
| Goodwill Impairment (2012) | | | | (38,000) |
| Controlling Interest in Consolidated Retained Earnings on 12/31/12 | | | | $633,600 |

**Problem 5-5**

**Part A** – The firm uses the cost method because the firm recognizes dividend income from the investment.

Computation and Allocation of Difference Schedule

| | Parent Share | Non-Controlling Share | Entire Value |
|---|---|---|---|
| Purchase price and implied value | **$1,000,000** | **111,111** | 1,111,111 * |
| Less: Book value of equity acquired | 621,000 | 69,000 | **690,000** |
| Difference between implied and book value | 379,000 | 42,111 | **421,111** |
| Equipment ($390,000 – $300,000) | (81,000) | (9,000) | **(90,000)** |
| Less:Accumulated Depreciation ($130,000 – $100,000) | 27,000 | 3,000 | **30,000** |
| Inventory ($210,000 – $160,000) | (45,000) | (5,000) | **(50,000)** |
| Land ($290,000 – 190,000) | (90,000) | (10,000) | **(100,000)** |
| Bond Discount ($205,556 – $150,000) | (50,000) | (5,556) | **(55,556)** |
| Balance | 140,000 | 15,555 | 155,555 |
| Goodwill | (140,000) | (15,555) | **(155,555)** |
| Balance | -0- | -0- | -0- |

*$1,000,000/.90

| 2011 Amortization Schedule | | | |
|---|---|---|---|
| Equipment (10 year life) | 5,400 | 600 | **6,000** |
| Inventory (sold in 2011) | 45,000 | 5,000 | **50,000** |
| Bond Discount | 50,000 | 5,556 | **55,556** |
| Total | 100,400 | 11,156 | 111,556 |

| 2012 Amortization Schedule | | | |
|---|---|---|---|
| Equipment (10 year life) | 5,400 | 600 | **6,000** |
| Inventory (sold in 2011) | 0 | 0 | **0** |
| Bond Discount | 0 | 0 | **0** |
| Total | 5,400 | 600 | 6,000 |

*The goodwill may also be calculated analytically as follows:

| | |
|---|---|
| Cost of Investment ($1,000,000/0.9) | $1,111,111 |
| Fair value acquired | (955,556) |
| Goodwill | $155,555 |

**Problem 5-5 (Continued)**

**Part B** **2011**

| | | |
|---|---|---|
| Cost of Goods Sold | 50,000 | |
| Gain on Early Extinguishment of Debt | 55,556 | |
| Land | 100,000 | |
| Equipment | 90,000 | |
| Goodwill | 155,555 | |
| Accumulated Depreciation | | 30,000 |
| Difference between Implied and Book Value | | 421,111 |

| | | |
|---|---|---|
| Depreciation Expense ($60,000/10) | 6,000 | |
| Accumulated Depreciation | | 6,000 |

Treatment of the Amount of the Difference Assigned to Bond Discount

Date of Acquisition

| | | |
|---|---|---|
| Unamortized Discount on Bonds Payable | 55,556 | |
| Difference between Implied And Book Value | | 55,556 |

**2011**

Book entry to record retirement in 2011 on Stevens books

| | | |
|---|---|---|
| Bonds Payable | 205,556 | |
| Cash | | 150,000 |
| Gain on Retirement of Debt | | 55,556 |

But from consolidated point of view the gain should be $0

| | | |
|---|---|---|
| Bonds Payable | 205,556 | |
| Unamortized Discount on Bonds Payable | | 55,556 |
| Cash | | 150,000 |

So entry in Consolidated Statements Workpaper for year ended December 31, 2011 is:

| | | |
|---|---|---|
| Gain on Early Extinguishment of Debt | 55,556 | |
| Difference between Implied And Book Value | | 55,556 |

Workpaper entries in years after 2011:

| | | |
|---|---|---|
| Beginning Retained Earnings-Palmer | 50,000 | |
| Noncontrolling Interest | 5,556 | |
| Difference between Implied And Book Value | | 55,556 |

**Problem 5-5 (continued)**

**Part C**

PALMER COMPANY AND SUBSIDIARY
Consolidated Statement Workpaper
For the Year Ended December 31, 2013

| | Palmer Company | Stevens Company | Eliminations Dr. | Eliminations Cr. | Noncontrolling Interest | Consolidated Balances |
|---|---|---|---|---|---|---|
| **Income Statement** | | | | | | |
| Sales | $620,000 | $340,000 | | | | $960,000 |
| Cost of Goods Sold | 430,000 | 240,000 | | | | 670,000 |
| Gross Margin | 190,000 | 100,000 | | | | 290,000 |
| Depreciation Expense | 30,000 | 20,000 | (4b) 6,000 | | | 56,000 |
| Other Expenses | 60,000 | 35,000 | | | | 95,000 |
| Income from Operations | 100,000 | 45,000 | | | | 139,000 |
| Dividend Income | 31,500 | | (2) 31,500 | | | |
| Net/Consolidated Income | 131,500 | 45,000 | | | | 139,000 |
| Noncontrolling Interest in Income * | | | | | 3,900 | (3,900) |
| Net Income to Retained Earnings | $131,500 | $45,000 | $37,500 | $0 | $3,900 | $135,100 |
| **Statement of Retained Earnings** | | | | | | |
| 1/1Retained Earnings | | | | | | |
| Palmer Company | $297,600 | | (4a) 95,000 | (1) 18,000 | | $209,800 |
| | | | (4b) 10,800 | | | |
| Stevens Company | | 210,000 | (3) 210,000 | | | |
| Net Income from above | 131,500 | 45,000 | 37,500 | | 3,900 | 135,100 |
| Dividends Declared | | | | | | |
| Palmer Company | (120,000) | | | | | (120,000) |
| Stevens Company | | (35,000) | | (2) 31,500 | (3,500) | |
| 12/31Retained Earnings to Balance Sheet | $309,100 | $220,000 | $353,300 | $49,500 | $400 | $224,900 |

* ($45,000 × .10) - $600 = $3,900.

| **Problem 5-5 (continued)** **Part C** | Palmer Company | Stevens Company | Eliminations Dr. | Eliminations Cr. | Noncontrolling Interest | Consolidated Balances |
|---|---|---|---|---|---|---|
| **Balance Sheet** | | | | | | |
| Cash | $201,200 | $151,000 | | | | $352,200 |
| Accounts Receivable | 221,000 | 173,000 | | | | 394,000 |
| Inventory | 100,400 | 81,000 | | | | 181,400 |
| Investment in Stevens Company | 1,000,000 | | (1) 18,000 | (3) 1,018,000 | | |
| Difference between Implied & Bk Value | | | (3) 421,111 | (4a) 421,111 | | |
| Equipment | 450,000 | 300,000 | (4a) 90,000 | | | 840,000 |
| Accumulated Depreciation | (300,000) | (140,000) | | (4a) 30,000<br>(4b) 18,000 | | (488,000) |
| Land | 360,000 | 290,000 | (4a) 100,000 | | | 750,000 |
| Goodwill | | | (4a) 155,555 | | | 155,555 |
| Total Assets | $2,032,600 | $855,000 | | | | $2,185,155 |
| | | | | | | |
| Accounts Payable | $323,500 | $135,000 | | | | $458,500 |
| Bonds Payable | 400,000 | | | | | 400,000 |
| | | | | | | |
| Capital Stock: | | | | | | |
| Palmer Company | 1,000,000 | | | | | 1,000,000 |
| Stevens Company | | 500,000 | (3) 500,000 | | | |
| Retained Earnings from above | 309,100 | 220,000 | 353,300 | 49,500 | 400 | 224,900 |
| 1/1 Noncontrolling Interest in Net Assets | | | (4a) 10,556<br>(4b) 1,200 | (3) 113,111 | 101,355 | |
| 12/31 Noncontrolling Interest in Net Assets | | | | | $101,755 | 101,755 |
| Total Liabilities & Equity | $2,032,600 | $855,000 | $1,649,722 | $1,649,722 | | $2,185,155 |

Noncontrolling Interest in Income = 0.10 × $45,000 – $600 = $3,900

Explanations of workpaper entries are on separate page

**Problem 5-5 (continued)**

Explanations of workpaper entries

Explanation of workpaper entries – Year 2013

| | | | |
|---|---|---|---|
| (1) | Investment in Stevens Company [0.9 × ($210,000 - $190,000)] | 18,000 | |
| | Beginning Retained Earnings-Palmer Company | | 18,000 |
| | To establish reciprocity/convert to equity as of 1/1/2013 | | |
| (2) | Dividend Income ($35,000 × 0.90) | 31,500 | |
| | Dividends Declared | | 31,500 |
| | To eliminate intercompany dividends | | |
| (3) | Beginning Retained Earnings - Stevens Company | 210,000 | |
| | Common Stock-Stevens Company | 500,000 | |
| | Difference between Implied and Book Value | 421,111 | |
| | Investment in Stevens Company ($1,000,000 + $18,000) | | 1,018,000 |
| | Noncontrolling Interest ($111,111 + ($210,000 – $190,000) x .10) | | 113,111 |
| | To eliminate investment account and create noncontrolling interest account | | |
| (4) | Beginning Retained Earnings-Palmer Company [$45,000 + $50,000 + (2 × $5,400)] | 105,800 | |
| | Noncontrolling Interest [$5,000 + $5,556 + (2 x $600)] | 11,756 | |
| | Depreciation Expense ($60,000/10) | 6,000 | |
| | Plant and Equipment | 90,000 | |
| | Land | 100,000 | |
| | Goodwill | 155,555 | |
| | Accumulated Depreciation [$30,000 + (3 × $6,000)] | | 48,000 |
| | Difference between Implied and Book Value | | 421,111 |
| | To allocate and depreciate the difference between implied and book value | | |

Alternative to entry (4)

| | | | |
|---|---|---|---|
| (4a) | Beginning Retained Earnings-Palmer Company [$45,000 + $50,000] | 95,000 | |
| | Noncontrolling Interest [$5,000 + $5,556] | 10,556 | |
| | Plant and Equipment | 90,000 | |
| | Land | 100,000 | |
| | Goodwill | 155,555 | |
| | Accumulated Depreciation | | 30,000 |
| | Difference between Implied and Book Value | | 421,111 |
| (4b) | Beginning Retained Earnings-Palmer Company | 10,800 | |
| | Noncontrolling Interest ($600 x 2) | 1,200 | |
| | Depreciation Expense ($60,000/10) | 6,000 | |
| | Accumulated Depreciation [(3 × $6,000)] | | 18,000 |

**Problem 5-5**

| **Part D** | | |
|---|---|---|
| | Palmer Company's net income from its own operations | $100,000 |
| | Palmer Company's share of Stevens Company's income (0.90 × $45,000) | 40,500 |
| | Less: Depreciation | (5,400) |
| | Controlling Interest in Consolidated Net Income | $135,100 |

Noncontrolling Interest in Consolidated Income (2013)

| | | | |
|---|---|---|---|
| Amortization of the difference between implied and book value related to Property and equipment ($60,000/10) | 6,000 | Net income reported by Stevens | $ 45,000 |
| | | Adjusted net income of Stevens | 39,000 |
| | | Noncontrolling Ownership percentage interest | 10% |
| | | Noncontrolling Interest in Consolidated Net Income | $ 3,900 |

Controlling Interest in Consolidated Income (2013)

| | | |
|---|---|---|
| | Palmer Company's net income from its independent operations | $ 100,000 |
| | Palmer Company's share of the adjusted income of Stevens Company (.9 X $39,000) | 35,100 |
| | Controlling interest in Consolidated Net Income | $ 135,100 |

**Problem 5-6**

Computation and Allocation of Difference Schedule

| | Parent Share | Non-Controlling Share | Entire Value |
|---|---|---|---|
| Purchase price and implied value | **$400,000** | **70,588** | 470,588 * |
| Less: Book value of equity acquired | 255,000 | 45,000 | **300,000** |
| Difference between implied and book value | 145,000 | 25,588 | **170,588** |
| Equipment* | (76,500) | (13,500) | **(90,000)** |
| Less:Accumulated Depreciation* | 25,500 | 4,500 | **30,000** |
| Balance | 94,000 | 16,588 | 110,588 |
| Goodwill | (94,000) | (16,588) | (**110,588)** |
| Balance | -0- | -0- | -0- |

*$400,000/.85

**Problem 5-6 (continued)**

*Schedule of Book Value and Fair Value on Date of Acquisition

| | Fair Value | Book Value | Fair Value Minus Book Value |
|---|---|---|---|
| Equipment | $450,000 [1] | $360,000 | $90,000 [3] |
| Accumulated Depreciation | 150,000 [2] | 120,000 | 30,000 [4] |
| Equipment (net) | $300,000 | $240,000 | $60,000 |

[1] $300,000/($240/$360) = $450,000
[2] $450,000 × ($120/$360) = $150,000
[3] $60,000/($240/$360) = $90,000
[4] $90,000 × ($120/$360) = $30,000

| Allocation of Difference between Implied and Book Value | Amount | Annual Amortization |
|---|---|---|
| Equipment (net) | $60,000/6 yr | $10,000 |
| Goodwill | 110,588 | 0 |
| Difference between Implied and Book Value | $170,588 | $10,000 |

**Part A**

**Part 1 – Cost Method**

| | | Debit | Credit |
|---|---|---|---|
| (1) | Dividend Income ($30,000 × 0.85) | 25,500 | |
| | Dividends Declared | | 25,500 |
| | | | |
| (2) | Beginning Retained Earnings - Silvas Company | 210,000 | |
| | Common Stock - Silvas Company | 90,000 | |
| | Difference between Implied and Book Value | 170,588 | |
| | Investment in Silvas Company | | 400,000 |
| | Noncontrolling Interest | | 70,588 |
| | | | |
| (3) | Depreciation Expense | 10,000 | |
| | Equipment | 90,000 | |
| | Goodwill | 110,588 | |
| | Accumulated Depreciation - Equipment ($30,000 + $10,000) | | 40,000 |
| | Difference between Implied and Book Value | | 170,588 |

Alternative to entry (3)

| | | Debit | Credit |
|---|---|---|---|
| (3a) | Equipment | 90,000 | |
| | Goodwill | 110,588 | |
| | Accumulated Depreciation - Equipment | | 30,000 |
| | Difference between Implied and Book Value | | 170,588 |
| | | | |
| | Depreciation Expense | 10,000 | |
| | Accumulated Depreciation - Equipment | | 10,000 |

**Problem 5-6 (continued)**

**Part 2 – Partial Equity Method**

| | | | |
|---|---|---|---|
| (1) | Equity in Subsidiary Income ($40,000 × 0.85) | 34,000 | |
| | Dividends Declared ($30,000 × 0.85) | | 25,500 |
| | Investment in Silvas Company | | 8,500 |
| | To eliminate intercompany dividends and income | | |
| (2) | Beginning Retained Earnings - Silvas Company | 210,000 | |
| | Common Stock - Silvas Company | 90,000 | |
| | Difference between Implied and Book Value | 170,588 | |
| | Investment in Silvas Company | | 400,000 |
| | Noncontrolling Interest | | 70,588 |
| (3) | Depreciation Expense | 10,000 | |
| | Equipment | 90,000 | |
| | Goodwill | 110,588 | |
| | Accumulated Depreciation - Equipment ($30,000 + $10,000) | | 40,000 |
| | Difference between Implied and Book Value | | 170,588 |

Alternative to entry (3)

| | | | |
|---|---|---|---|
| (3a) | Equipment | 90,000 | |
| | Goodwill | 110,588 | |
| | Accumulated Depreciation - Equipment | | 30,000 |
| | Difference between Implied and Book Value | | 170,588 |
| (3b) | Depreciation Expense | 10,000 | |
| | Accumulated Depreciation - Equipment | | 10,000 |

**Part B**

**Part 1 – Cost Method**

| | Silvas Company | Difference | Consolidated |
|---|---|---|---|
| Cost | $360,000 | $90,000 | $450,000 |
| Accumulated Depreciation | 160,000 | 40,000 | 200,000 |
| Undepreciated Basis | 200,000 | 50,000 | 250,000 |
| Sales Proceeds | 220,000 | | 220,000 |
| Gain (Loss) | $ 20,000 | $50,000 | $(30,000) |

| | | | |
|---|---|---|---|
| (1) | Investment in Silvas Company ($10,000 × 0.85) | 8,500 | |
| | Beginning Retained Earnings - Perini Company | | 8,500 |
| | To establish reciprocity/convert to equity as of 1/1/2012 | | |
| (2) | Dividend Income ($30,000 × 0.85) | 25,500 | |
| | Dividends Declared-Silvas Company | | 25,500 |
| | To eliminate intercompany dividends | | |

**Problem 5-6 (continued)**

| | | | |
|---|---|---|---|
| (3) | Beginning Retained Earnings-Silvas Co. | 220,000 | |
| | Common Stock -Silvas Company | 90,000 | |
| | Difference between Implied and Book Value | 170,588 | |
| | Investment in Silvas Company ($400,000 + $8,500) | | 408,500 |
| | Noncontrolling Interest ($70,588 + ($220,000 – $210,000) x .15) | | 72,088 |
| | To eliminate investment account and create noncontrolling interest account | | |

| | | | |
|---|---|---|---|
| (4) | Beginning Retained Earnings-Perini Company | 8,500 | |
| | Noncontrolling Interest | 1,500 | |
| | Gain on Disposal of Equipment | 20,000 | |
| | Loss on Disposal of Equipment | 30,000 | |
| | Goodwill | 110,588 | |
| | Difference between Implied and Book Value | | 170,588 |
| | To allocate and depreciate difference between Implied and book value | | |

| | | |
|---|---|---|
| Note: | $20,000 Dr. to Gain + $30,000 Dr. to Loss = | $50,000 |
| | Unamortized difference associated with equipment on date sold to outsiders equals $60,000 - $10,000 = | $50,000 |

**Part B**

**Part 2 – Partial Equity Method**

| | Silvas Company | Difference | Consolidated |
|---|---|---|---|
| Cost | $360,000 | $90,000 | $450,000 |
| Accumulated Depreciation | 160,000 | 40,000 | 200,000 |
| Undepreciated Basis | 200,000 | 50,000 | 250,000 |
| Sales Proceeds | 220,000 | | 220,000 |
| Gain (Loss) | $20,000 | $50,000 | $(30,000) |

| | | | |
|---|---|---|---|
| (1) | Equity in Subsidiary Income ($40,000 × 0.85) | 34,000 | |
| | Investment in Silvas Company | | 34,000 |
| | To eliminate intercompany dividends and income | | |

| | | | |
|---|---|---|---|
| (2) | Investment in Silvas Company | 25,500 | |
| | Dividends Declared-Silvas Company ($30,000 × 0.85) | | 25,500 |
| | To eliminate intercompany dividends | | |

| | | | |
|---|---|---|---|
| (3) | Beginning Retained Earnings-Silvas Co. | 220,000 | |
| | Common Stock -Silvas Company | 90,000 | |
| | Difference between Implied and Book Value | 170,588 | |
| | Investment in Silvas Company ($400,000 + $8,500) | | 408,500 |
| | Noncontrolling Interest ($70,588 + ($220,000 – $210,000) x .15) | | 72,088 |
| | To eliminate investment account and create noncontrolling interest account | | |

**Problem 5-6 (continued)**

| | | | |
|---|---|---|---|
| (4) | Beginning Retained Earnings-Perini Company | 8,500 | |
| | Noncontrolling Interest | 1,500 | |
| | Gain on Disposal of Equipment | 20,000 | |
| | Loss on Disposal of Equipment | 30,000 | |
| | Goodwill | 110,588 | |
| | Difference between Implied and Book Value | | 170,588 |
| | To allocate and depreciate difference between implied and book value | | |

| | | |
|---|---|---|
| Note: | $20,000 Dr. to Gain + $30,000 Dr. to Loss = | $50,000 |
| | Unamortized difference associated with equipment on date sold to outsiders equals $60,000 - $10,000 = | $50,000 |

**Problem 5-7**

Computation and Allocation of Difference Schedule

| | Parent Share | Non-Controlling Share | Entire Value |
|---|---|---|---|
| Purchase price and implied value | **$900,000** | **300,000** | 1,200,000 * |
| Less: Book value of equity acquired | 506,250 | 168,750 | **675,000** |
| Difference between implied and book value | 393,750 | 131,250 | **525,000** |
| Equipment (net) | (135,000) | (45,000) | (**180,000)** |
| Balance | 258,750 | 86,250 | 345,000 |
| Goodwill | (258,750) | (86,250) | **(345,000)** |
| Balance | -0- | -0- | -0- |

*$900,000/.75

Amount of Difference Between Implied and Book Value Allocated to Equipment

| | Fair Value | Book Value | Fair Value Minus Book Value |
|---|---|---|---|
| Equipment | $990,000 [1] | $720,000 | $270,000 [3] |
| Accumulated Depreciation | 330,000 [2] | (240,000) | (90,000)[4] |
| Net | $660,000 | $480,000 | $180,000 |

[1] $660,000/($480/$720) = $990,000
[2] $990,000 × ($240/$720) = $330,000
[3] $180,000/($480/$720) = $270,000
[4] $270,000 × ($240/$720) = $90,000

Annual Depreciation of Difference

Equipment ($180,000/10)) = $18,000

**Problem 5-7 (Continued)**

| | | | |
|---|---|---|---|
| **Part A** | Investment in Sanchez Company | 90,000 | |
| | Dividend Declared-Sanchez Co. ($120,000 × 0.75) | | 90,000 |
| | | | |
| (1) | Equity in Subsidiary Income (($123,000 × 0.75) – $13,500) | 78,750 | |
| | Investment in Sanchez Company | | 78,750 |
| | | | |
| (2) | Beginning Retained Earnings-Sanchez Company | 375,000 | |
| | Common Stock-Sanchez Company | 300,000 | |
| | Difference between Implied and Book Value | 525,000 | |
| | Investment in Sanchez Company | | 900,000 |
| | Noncontrolling Interest | | 300,000 |
| | To eliminate investment and create noncontrolling interest account | | |
| | | | |
| (3) | Depreciation Expense | 18,000 | |
| | Equipment | 270,000 | |
| | Goodwill | 345,000 | |
| | Accumulated Depreciation-Equipment ($90,000 + $18,000) | | 108,000 |
| | Difference between Implied and Book Value | | 525,000 |
| | To allocate and depreciate the difference between implied and book value | | |

Alternative to entry (3)

| | | | |
|---|---|---|---|
| (3a) | Equipment | 270,000 | |
| | Goodwill | 345,000 | |
| | Accumulated Depreciation-Equipment | | 90,000 |
| | Difference between Implied and Book Value | | 525,000 |
| | | | |
| (3b) | Depreciation Expense | 18,000 | |
| | Accumulated Depreciation-Equipment | | 18,000 |

**Part B** (1) & (2)

| | Book Value | Difference | Consolidated |
|---|---|---|---|
| Equipment | $720,000 | $270,000 [3] | $990,000 [1] |
| Accumulated Depreciation | (240,000) | (90,000) | (330,000) |
| Carrying Value 1/1/2011 | $480,000 | $180,000 | $660,000 |
| | × 8/10 | | × 8/10 |
| Carrying Value 1/1/2013 | 384,000 | | 528,000 |
| Proceeds from Sale | (450,000) | | (450,000) |
| (Gain) Loss on Sale | $(66,000) | | $78,000 |

| | | | |
|---|---|---|---|
| (3) | Investment in Sanchez Company | 36,000 | |
| | Gain on Disposal of Equipment - Sanchez | 66,000 | |
| | Loss on Disposal of Equipment | 78,000 | |
| | Difference between Implied and Book Value | | 180,000 |

(4) In all subsequent years, the $180,000 difference between implied and book value that was allocated to the equipment that was disposed of will be debited to the Investment in Sanchez Company in the consolidated statements workpaper for the cumulative amount of additional depreciation expense ($18,000 + $18,000 = $36,000) and for the amount of adjustment to the reported gain or loss on the disposal of equipment ($66,000 + $78,000 = $144,000) recognized in the consolidated financial statements in prior years.

**Problem 5-7 (continued)**

Note: The $66,000 reduction of the gain plus the $78,000 loss equals $144,000 which is equal to the unamortized difference associated with the equipment on the date it was sold to outsiders ($180,000 - $18,000 - $18,000 = $144,000)

**Problem 5-8**
**Part A**

Computation and Allocation of Difference Schedule

| | Parent Share | Non-Controlling Share | Entire Value |
|---|---|---|---|
| Purchase price and implied value | **$3,100,000** | **547,059** | 3,647,059 * |
| Less: Book value of equity acquired | 2,295,000 | 405,000 | **2,700,000** |
| Difference between implied and book value | 805,000 | 142,059 | **947,059** |
| Inventory | (42,500) | (7,500) | **(50,000)** |
| Plant and Equipment | (340,000) | (60,000) | **(400,000)** |
| Land | (425,000) | (75,000) | **(500,000)** |
| Balance (excess of FV over implied value) | (2,500) | (441) | (2,941) |
| Gain | **2,500** | | |
| Increase Noncontrolling interest to fair value of assets | | **441** | |
| Total allocated bargain | | | 2,941 |
| Balance | -0- | -0- | -0- |

*$3,100,000/.85

Amortization Schedule - Parent

| | **2011** | **2012** |
|---|---|---|
| Inventory | $42,500 | $0 |
| Plant and Equipment ($400,000/10 x .85) | 34,000 | 34,000 |
| Gain | 2,500 | 0 |
| Total | $79,000 | $34,000 |

Amortization Schedule – Noncontrolling interest

| | **2011** | **2012** |
|---|---|---|
| Inventory | $7,500 | $0 |
| Plant and Equipment ($400,000/10 x .15) | 6,000 | 6,000 |
| FV adjustment | 441 | 0 |
| Total | $13,941 | $6,000 |

**Problem 5-8 (continued)**

**Part B (1) - Cost method**

| | | 2011 | | 2012 | |
|---|---|---|---|---|---|
| (1) | Investment in Savage ($110,000 × .85) | | | 93,500 | |
| | Beginning Retained Earnings – Patten | | | | 93,500 |
| | | | | | |
| (2) | Beginning Retained Earnings – Savage | 700,000 | | 810,000 | |
| | Common Stock – Savage | 2,000,000 | | 2,000,000 | |
| | Difference between Implied and Book Value | 947,059 | | 947,059 | |
| | Investment in Savage | | 3,100,000 | | 3,193,500 |
| | Noncontrolling Interest [$547,059 + ($110,000 x .15)] | | 547,059 | | 563,559 |
| | | | | | |
| (3) | Beginning Retained Earnings – Patten ($42,500 + $34,000) | | | 76,500 | |
| | Noncontrolling Interest ($7,500 + $6,000) | | | 13,500 | |
| | Cost of Goods Sold | 50,000 | | | |
| | Depreciation Expense | 40,000 | | 40,000 | |
| | Plant and Equipment ($400,000 – $40,000) | 360,000 | | 320,000 | |
| | Land | 500,000 | | 500,000 | |
| | Difference between Implied and Book Value | | 947,059 | | 947,059 |
| | Gain on Acquisition (P's share) | | 2,500 | | |
| | Beginning Retained Earnings – Patten (gain) | | | | 2,500 |
| | Noncontrolling Interest | | 441 | | 441 |

Alternative to entry (3)

| | | | | | |
|---|---|---|---|---|---|
| (3a) | Beginning Retained Earnings – Patten | | | 42,500 | |
| | Noncontrolling Interest | | | 7,500 | |
| | Cost of Goods Sold | 50,000 | | | |
| | Plant and Equipment | 400,000 | | 400,000 | |
| | Land | 500,000 | | 500,000 | |
| | Difference between Implied and Book Value | | 947,059 | | 947,059 |
| | Gain on Acquisition (P's share) | | 2,500 | | |
| | Beginning Retained Earnings – Patten (gain) | | | | 2,500 |
| | Noncontrolling Interest | | 441 | | 441 |
| | | | | | |
| (3b) | Beginning Retained Earnings – Patten | | | 34,000 | |
| | Noncontrolling Interest | | | 6,000 | |
| | Depreciation Expense | 40,000 | | 40,000 | |
| | Plant and Equipment (net) | | 40,000 | | 80,000 |

**Part B (2) – Partial Equity Method**

| | | 2011 | | 2012 | |
|---|---|---|---|---|---|
| (1) | Equity in Sub. Income ($110,000)(.85), ($180,000)(.85) | 93,500 | | 153,000 | |
| | Investment in Savage | | 93,500 | | 153,000 |
| | | | | | |
| (2) | Beginning Retained Earnings – Savage | 700,000 | | 810,000 | |
| | Common Stock – Savage | 2,000,000 | | 2,000,000 | |
| | Difference between Implied and Book Value | 947,059 | | 947,059 | |
| | Investment in Savage | | 3,100,000 | | 3,193,500 |
| | Noncontrolling Interest | | 547,059 | | 563,559 |

**Problem 5-8 (continued)**

| | | | | | |
|---|---|---|---|---|---|
| (3) | Beginning Retained Earnings – Patten | | | 76,500 | |
| | Noncontrolling Interest ($7,500 + $6,000) | | | 13,500 | |
| | Cost of Goods Sold | 50,000 | | | |
| | Depreciation Expense | 40,000 | | 40,000 | |
| | Plant and Equipment | 360,000 | | 320,000 | |
| | Land | 500,000 | | 500,000 | |
| | Difference between Implied and Book Value | | 947,059 | | 947,059 |
| | Gain on Acquisition (P's share) | | 2,500 | | |
| | Beginning Retained Earnings – Patten (gain) | | | | 2,500 |
| | Noncontrolling Interest | | 441 | | 441 |

Alternative to entry (3)

| | | | | | |
|---|---|---|---|---|---|
| (3a) | Beginning Retained Earnings – Patten | | | 42,500 | |
| | Noncontrolling Interest | | | 7,500 | |
| | Cost of Goods Sold | 50,000 | | | |
| | Plant and Equipment | 400,000 | | 400,000 | |
| | Land | 500,000 | | 500,000 | |
| | Difference between Implied and Book Value | | 947,059 | | 947,059 |
| | Gain on Acquisition (P's share) | | 2,500 | | |
| | Beginning Retained Earnings – Patten (gain) | | | | 2,500 |
| | Noncontrolling Interest | | 441 | | 441 |

| | | | | | |
|---|---|---|---|---|---|
| (3b) | Beginning Retained Earnings – Patten | | | 34,000 | |
| | Noncontrolling Interest | | | 6,000 | |
| | Depreciation Expense | 40,000 | | 40,000 | |
| | Plant and Equipment (net) | | 40,000 | | 80,000 |

**Part B (3) – Complete Equity Method**

| | | 2011 | | 2012 | |
|---|---|---|---|---|---|
| (1) | Equity in Subsidiary Income | 17,160* | | 119,160** | |
| | Investment in Savage | | 17,160 | | 119,160 |
| | *($110,000)(.85) – $42,500 – $33,840 | | | | |
| | **($180,000)(.85) – $33,840 | | | | |
| (2) | Beginning Retained Earnings – Savage | 700,000 | | 810,000 | |
| | Common Stock – Savage | 2,000,000 | | 2,000,000 | |
| | Difference between Implied and Book Value | 947,059 | | 947,059 | |
| | Investment in Savage | | 3,100,000 | | 3,193,500 |
| | Noncontrolling Interest | | 547,059 | | 563,559 |
| (3) | Investment in Savage | | | 76,500 | |
| | Noncontrolling Interest ($7,500 + $6,000) | | | 13,500 | |
| | Cost of Goods Sold | 50,000 | | | |
| | Depreciation Expense | 40,000 | | 40,000 | |
| | Plant and Equipment | 360,000 | | 320,000 | |
| | Land | 500,000 | | 500,000 | |
| | Difference between Implied and Book Value | | 947,059 | | 947,059 |

| | | | | | |
|---|---|---|---|---|---|
| | Gain on Acquisition (P's share) | | 2,500 | | |
| | Beginning Retained Earnings – Patten (gain) | | | | 2,500 |
| | Noncontrolling Interest | | 441 | | 441 |

Alternative to entry (3)

| | | | | | |
|---|---|---|---|---|---|
| (3a) | Investment in Savage | | | 42,500 | |
| | Noncontrolling Interest | | | 7,500 | |
| | Cost of Goods Sold | 50,000 | | | |
| | Plant and Equipment | 400,000 | | 400,000 | |
| | Land | 500,000 | | 500,000 | |
| | Difference between Implied and Book Value | | 947,059 | | 947,059 |
| | Gain on Acquisition (P's share) | | 2,500 | | |
| | Beginning Retained Earnings – Patten (gain) | | | | 2,500 |
| | Noncontrolling Interest | | 441 | | 441 |
| (3b) | Investment in Savage | | | 34,000 | |
| | Noncontrolling Interest | | | 6,000 | |
| | Depreciation Expense | 40,000 | | 40,000 | |
| | Plant and Equipment (net) | | 40,000 | | 80,000 |

**Part C**

| | 2011 | 2012 |
|---|---|---|
| Patten Corporation's Income from its own operations | $950,000 | $675,000 |
| Patten Corporation's share of Savage Company's Income (85%) | 93,500 | 153,000 |
| Less: amortization/depreciation: | | |
| Inventory | (42,500) | |
| Plant and Equipment | (34,000) | (34,000) |
| Gain | 2,500 | 0 |
| Consolidated Net Income | $969,500 | $794,000 |

## Problem 5-9

Computation and Allocation of Difference Schedule

| | Parent Share | Non-Controlling Share | Entire Value |
|---|---|---|---|
| Purchase price and implied value | **556,000** | **0** | 556,000 |
| Less: Book value of equity acquired | 294,000 | 0 | **294,000** |
| Difference between implied and book value | 262,000 | 0 | **262,000** |
| Receivables | 10,690 | 0 | **10,690** |
| Inventory | (48,000) | (0) | **(48,000)** |
| Building | (44,000) | (0) | **(44,000)** |
| Accumulated Depreciation | 35,200 | (0) | **35,200** |
| Equipment | 15,000 | (0) | **15,000** |
| Accumulated Depreciation | (11,250) | (0) | **(11,250)** |
| Land | (270,000) | (0) | **(270,000)** |
| Bonds Payable * | (49,640) | (0) | (**49,640)** |
| Balance (excess of FV over implied value) | (100,000) | (0) | (100,000) |
| Gain | **100,000** | | |
| Increase Noncontrolling interest to fair value of assets | | **0** | |
| Total allocated bargain | | | 100,000 |
| Balance | -0- | -0- | -0- |

* Fair value of $300,000, 8%, Bonds

Present Value of annuity of 1, 5%, 36 periods = 16.54685 × $12,000 = $198,562

Present Value of annuity of 1, 5%, 36 periods = .17266 × $300,000 = $51,798

$250,360

| | | | | |
|---|---|---|---|---|
| **Part A** | (1) | Beginning Retained Earnings-Sound Company | 14,000 | |
| | | Common Stock-Sound Company | 200,000 | |
| | | Premium on Common Stock-Sound Company | 80,000 | |
| | | Difference Between Implied and Book Value | 262,000 | |
| | | Investment in Sound Company | | 556,000 |
| | (2) | Buildings | 44,000 | |
| | | Accumulated Depreciation-Equipment | 17,250[a] | |
| | | Land | 270,000 | |
| | | Cost of Goods Sold | 48,000 | |
| | | Interest Expense | 1,062 [b] | |
| | | Unamortized Discount on Bonds Payable | 48,578 [c] | |
| | | Depreciation Expense | | 1,600[d] |
| | | Equipment | | 15,000 |
| | | Loss on Write-down of Receivables | | 10,690 |
| | | Accumulated Depreciation-Buildings | | 39,600[e] |
| | | Gain on Acquisition | | 100,000 |
| | | Difference between Implied and Book Value | | 262,000 |

Alternative to entry (2)

| | | | |
|---|---|---|---|
| (2a) | Buildings | 44,000 | |
| | Accumulated Depreciation-Equipment | 11,250 | |
| | Land | 270,000 | |
| | Cost of Goods Sold | 48,000 | |
| | Unamortized Discount on Bond Payable | 49,640 | |
| | Equipment | | 15,000 |
| | Loss on Write-down of Receivables | | 10,690 |
| | Accumulated Depreciation-Buildings | | 35,200 |
| | Gain on Acquisition | | 100,000 |
| | Difference between Implied and Book Value | | 262,000 |
| (2b) | Depreciation Expense ($44,000/10) | 4,400 | |
| | Accumulated Depreciation – Building | | 4,400 |
| | Accumulated Depreciation – Equipment (15,000/2.5) | 6,000 | |
| | Depreciation Expense | | 6,000 |
| (2c) | Interest Expense | 1,062 | |
| | Unamortized Discount on Bonds Payable | | 1,062 |

[a] $11,250 +$6,000 = $17,250

[b] [($250,360 × 0.05) – $12,000 + ($250,878 × 0.05) – $12,000] = $1,062

[c] $49,640 – $1,062 = $48,578

[d] (15,000/2.5) – ($44,000/10) = $1,600

[e] $35,200 + $4,400 = $39,600

| | | |
|---|---|---|
| **Part B** | Pump Company's net income from its independent operations | $500,000 |
| | Pump Company's share of the reported income of Sound Company | 80,000 |
| | Less allocation and depreciation of Difference between Implied and Book Value assigned to: | |
| | Increase cost of goods sold | (48,000) |
| | Increase interest expense | (1,062) |
| | Decrease on asset write-down | 10,690 |
| | Decrease depreciation | 1,600 |
| | Consolidated Net Income - 2011 | $543,228 |

**Problem 5-10**

Computation and Allocation of Difference Schedule

| | Parent Share | Non-Controlling Share | Entire Value Taylor | Sanders 100% |
|---|---|---|---|---|
| Purchase price and implied value | **$1,300,000** | **144,444** | **1,444,444** * | 800,000 |
| Less: Book value of equity acquired | 990,000 | 110,000 | **1,100,000** | **700,000** |
| Difference between implied and book value | 310,000 | 34,444 | **344,444** | **100,000** |
| Inventory | (67,500) | (7,500) | **(75,000)** | **0** |
| Plant and equipment | 0 | 0 | **0** | **(50,000)** |
| Land | (67,500) | (7,500) | **(75,000)** | **0** |
| Balance | 175,000 | 19,444 | 194,444 | 50,000 |
| Goodwill | (175,000) | (19,444) | **(194,444)** | **(50,000)** |
| Balance | -0- | -0- | -0- | -0- |

*$1,300,000/.90

| Amortization Schedule for 2011 | Sanders | Taylor | |
|---|---|---|---|
| Inventory | $0 | $50,000 | ($75,000 × 2/3) |
| Plant and Equipment ($50,000/10 yr) | 5,000 | | |
| Land | | 0 | |

| | | | |
|---|---|---|---|
| **Part A** | Investment in Sanders | 800,000 | |
| | Cash | | 800,000 |
| | Investment in Taylor | 1,300,000 | |
| | Cash | | 1,300,000 |
| | Cash | 100,000 | |
| | Dividend Income (Sanders) | | 100,000 |
| | Cash ($200,000 × .90) | 180,000 | |
| | Dividend Income (Taylor) | | 180,000 |

**Problem 5-10 (continued)**

| | | | |
|---|---|---|---|
| **Part B** | (1) Dividend Income | 100,000 | |
| | Dividends Declared-Sanders | | 100,000 |
| | | | |
| | (2) Common Stock- Sanders | 500,000 | |
| | Retained Earnings-Sanders | 200,000 | |
| | Difference between Implied and Book Value | 100,000 | |
| | Investment in Sanders | | 800,000 |
| | | | |
| | (3) Depreciation Expense | 5,000 | |
| | Plant and Equipment | 45,000 | |
| | Goodwill | 50,000 | |
| | Difference between Implied and Book Value | | 100,000 |
| | | | |
| | (4) Dividend Income ($200,000 × 0.90) | 180,000 | |
| | Dividends Declared-Taylor | | 180,000 |
| | | | |
| | (5) Common Stock – Taylor | 800,000 | |
| | Retained Earnings – Taylor | 300,000 | |
| | Difference between Implied and Book Value | 344,444 | |
| | Investment in Taylor | | 1,300,000 |
| | Noncontrolling Interest | | 144,444 |
| | | | |
| | (6) Inventory ($75,000 × 1/3) | 25,000 | |
| | Cost of Goods Sold | 50,000 | |
| | Land | 75,000 | |
| | Goodwill | 194,444 | |
| | Difference between Implied and Book Value | | 344,444 |

**Problem 5-11**

**Part A - Partial Equity Method Workpaper entries – Year 2010**

| | | |
|---|---|---|
| (1) Equity in Subsidiary Income ($100,000)(.80) | 80,000 | |
| Dividends Declared ($25,000 × .80) | | 20,000 |
| Investment in Salem Company | | 60,000 |
| To eliminate intercompany dividends and equity income | | |
| | | |
| (2) Beginning Retained Earnings - Salem Co. | 80,000 | |
| Common Stock - Salem | 550,000 | |
| Difference between Implied and Book Value | 432,500 | |
| Investment in Salem Company | | 850,000 |
| Noncontrolling Interest | | 212,500 |
| To eliminate investment account and create noncontrolling interest account | | |

**Problem 5-11 (continued)**

| | | | |
|---|---|---|---|
| (3) | Cost of Goods Sold | 40,000 | |
| | Land | 65,000 | |
| | Plant and Equipment | 130,000 | |
| | Goodwill | 197,500 | |
| | Difference between Implied and Book Value | | 432,500 |
| | To allocate the difference between implied and book value | | |
| (4) | Depreciation Expense ($130,000/5) | 26,000 | |
| | Plant and Equipment | | 26,000 |

**Part B - Partial Equity Method – Worksheet Entries – Year 2011**

| | | | |
|---|---|---|---|
| (1) | Equity in Subsidiary Income ($110,000)(.80) | 88,000 | |
| | Dividends Declared ($35,000 × .80) | | 28,000 |
| | Investment in Salem Company | | 60,000 |
| | To eliminate intercompany dividends and income | | |
| (2) | Beginning Retained Earnings - Salem Co. | 155,000 | |
| | Common Stock - Salem | 550,000 | |
| | Difference between Implied and Book Value | 432,500 | |
| | Investment in Salem Company ($850,000 + $80,000 – $20,000) | | 910,000 |
| | Noncontrolling Interest ($212,500 + ($155,000 – $80,000) × .2) | | 227,500 |
| | To eliminate investment account and create noncontrolling interest account | | |
| (3) | 1/1 Retained Earnings – Porter Company | 32,000 | |
| | Noncontrolling Interest | 8,000 | |
| | Land | 65,000 | |
| | Plant and Equipment (5 year life) | 130,000 | |
| | Goodwill | 197,500 | |
| | Difference between Implied and Book Value | | 432,500 |
| | To allocate the difference between implied and book value | | |
| (4) | 1/1 Retained Earnings – Porter Company (previous year's amount) | 20,800 | |
| | Noncontrolling Interest | 5,200 | |
| | Depreciation Expense ($130,000/5) | 26,000 | |
| | Plant and Equipment | | 52,000 |

## Problem 5-11 (continued)

Investment in Salem Corporation (Partial Equity)

| | | | |
|---|---|---|---|
| Cost of investment | 850,000 | | |
| 2010 equity income (.8)($100,000) | 80,000 | 2010 Dividends (.8)($25,000) | 20,000 |
| Balance 2010 | 910,000 | | |
| 2011 equity income (.8)($110,000) | 88,000 | 2011 Dividends (.8)($35,000) | 28,000 |
| Balance 2011 | 970,000 | | |
| 2012 equity income (.8)($170,000) | 136,000 | 2012 Dividends (.8)($60,000) | 48,000 |
| Balance 2012 | 1,058,000 | | |

## Part C

T-account Calculation of Controlling and Noncontrolling Interest in Consolidated Income
For Year Ended December 31, 2012

Non-Controlling Interest in Consolidated Income

| | | | |
|---|---|---|---|
| Additional depreciation of the difference between implied and book value related to: | | Net income reported by Salem Company | 170,000 |
| Depreciation Expense ($130,000/5) | 26,000 | | |
| Goodwill Impairment ($197,500 – $150,000) | 47,500 | | |
| | | Adjusted income of Salem | 96,500 |
| | | Noncontrolling Ownership percentage interest | 20% |
| | | Noncontrolling Interest in Consolidated Income | 19,300 |

Controlling Interest in Consolidated Income

| | | | |
|---|---|---|---|
| | | Porter Company's net income from its independent operations ($236,000 reported net income less $136,000 equity in subsidiary income included therein) | $100,000 |
| | | Porter Company's share of the adjusted income of Salem Company (.8 X $96,500) | 77,200 |
| | | Controlling interest in Consolidated Net Income | $177,200 |

**Problem 5-11 (continued)**

**Part D**

| **Income Statement** | Porter Company | Salem Company | Eliminations Debit | Eliminations Credit | Noncontrolling Interest | Consolidated Balances |
|---|---|---|---|---|---|---|
| Sales | $1,100,000 | $450,000 | | | | $1,550,000 |
| Equity in Subsidiary Income | 136,000 | | (1) 136,000 | | | |
| Total Revenue | 1,236,000 | 450,000 | | | | 1,550,000 |
| Cost of Goods Sold | 900,000 | 200,000 | | | | 1,100,000 |
| Depreciation Expense | 40,000 | 30,000 | (4) 26,000 | | | 96,000 |
| Impairment Loss | | | (5) 47,500 | | | 47,500 |
| Other Expenses | 60,000 | 50,000 | | | | 110,000 |
| Total Cost and Expense | 1,000,000 | 280,000 | | | | 1,353,500 |
| Net/Consolidated Income | 236,000 | 170,000 | | | | 196,500 |
| Noncontrolling Interest in Consolid. Income | | | | | 19,300* | (19,300) |
| Net Income to Retained Earnings | $236,000 | $170,000 | $209,500 | $0 | $19,300 | $177,200 |

| **Retained Earnings Statement** | Porter Company | Salem Company | Eliminations Debit | Eliminations Credit | Noncontrolling Interest | Consolidated Balances |
|---|---|---|---|---|---|---|
| 1/1 Retained Earnings: | | | | | | |
| Porter Company | $620,000 | | (3) 32,000 | | | $546,400 |
| | | | (4) 41,600 | | | |
| Salem Company | | $230,000 | (2) 230,000 | | | |
| Net Income from above | 236,000 | 170,000 | 209,500 | 0 | 19,300 | 177,200 |
| Dividends Declared: | | | | | | |
| Porter Company | (90,000) | | | | | (90,000) |
| Salem Company | | (60,000) | | (1) 48,000 | (12,000) | |
| 12/31/ Retained Earnings to Balance Sheet | $766,000 | $340,000 | $513,100 | $48,000 | $7,300 | $633,600 |

**Problem 5-11 (continued)**

| | Porter | Salem | | Eliminations | | | Noncontrolling | Consolidated |
|---|---|---|---|---|---|---|---|---|
| **Balance Sheet** | Company | Company | | Debit | | Credit | Interest | Balances |
| Cash | $70,000 | $65,000 | | | | | | $135,000 |
| Accounts Receivable | 260,000 | 190,000 | | | | | | 450,000 |
| Inventory | 240,000 | 175,000 | | | | | | 415,000 |
| Investment in Salem Comp. | 1,058,000 | | | | (1) | 88,000 | | 0 |
| | | | | | (2) | 970,000 | | |
| Difference between Implied and Book Value | | | (2) | 432,500 | (3) | 432,500 | | |
| Land | | 320,000 | (3) | 65,000 | | | | 385,000 |
| Plant and Equipment | 360,000 | 280,000 | (3) | 130,000 | (4) | 78,000 | | 692,000 |
| Goodwill | | | (3) | 197,500 | (5) | 47,500 | | 150,000 |
| Total Assets | $1,988,000 | $1,030,000 | | | | | | $2,227,000 |
| | | | | | | | | |
| Accounts Payable | $132,000 | $110,000 | | | | | | $242,000 |
| Notes Payable | 90,000 | 30,000 | | | | | | 120,000 |
| Common stock: | | | | | | | | |
| Porter Company | 1,000,000 | | | | | | | 1,000,000 |
| Salem Company | | 550,000 | (2) | 550,000 | | | | |
| Retained Earnings from above | 766,000 | 340,000 | | 513,100 | | 48,000 | 7,300 | 633,600 |
| 1/1 Noncontrolling Interest in Net | | | (3) | 8,000 | (2) | 242,500 | ** 224,100 | |
| Assets | | | (4) | 10,400 | | | | |
| 12/31 Noncontrolling Interest in Net Assets | | | | | | | $231,400 | 231,400 |
| Total Liabilities and Equity | $1,988,000 | $1,030,000 | | $1,906,500 | | $1,906,500 | | $2,227,000 |

* Noncontrolling Interest in Income =.2 × $170,000 – (.2 x $26,000) – (.2 x $47,500) = $19,300
** $212,500 + ($230,000 – $80,000) x .20 = $242,500
Explanations of workpaper entries are on the following page

## Problem 5-11 (continued)

Computation and Allocation of Difference Schedule

| | Parent Share | Non-Controlling Share | Entire Value |
|---|---|---|---|
| Purchase price and implied value | **$850,000** | **212,500** | 1,062,500 * |
| Less: Book value of equity acquired | 504,000 | 126,000 | **630,000** |
| Difference between implied and book value | 346,000 | 86,500 | **432,500** |
| Equipment | (104,000) | (26,000) | **(130,000)** |
| Land | (52,000) | (13,000) | **(65,000)** |
| Inventory | (32,000) | (8,000) | **(40,000)** |
| Balance | 158,000 | 39,500 | 197,500 |
| Goodwill | (158,000) | (39,500) | **(197,500)** |
| Balance | -0- | -0- | -0- |

*$850,000/.80

Explanations of workpaper entries:

| | | |
|---|---|---|
| (1) Equity in Subsidiary Income | 136,000 | |
| Dividends Declared ($60,000 × .8) | | 48,000 |
| Investment in Salem Company | | 88,000 |
| To reverse the effect of parent company entries during the year for subsidiary dividends and income | | |

| | | |
|---|---|---|
| (2) Beginning Retained Earnings - Salem Co. | 230,000 | |
| Common Stock – Salem | 550,000 | |
| Difference between Implied and Book Value | 432,500 | |
| Investment in Salem Company | | 970,000 |
| Noncontrolling Interest | | 242,500 |
| To eliminate investment account and create noncontrolling interest account | | |

| | | |
|---|---|---|
| (3) Beginning Retained Earnings - Porter Company | 32,000 | |
| Noncontrolling Interest | 8,000 | |
| Land | 65,000 | |
| Plant and Equipment | 130,000 | |
| Goodwill | 197,500 | |
| Difference between Implied and Book Value | | 432,500 |
| To allocate the difference between implied and book value | | |

| | | |
|---|---|---|
| (4) Beginning Retained Earnings - Porter Company (2)($20,800) | 41,600 | |
| Noncontrolling Interest (2)($5,200) | 10,400 | |
| Depreciation Expense ($130,000/5) | 26,000 | |
| Plant and Equipment, net | | 78,000 |

| | | |
|---|---|---|
| (5) Impairment Loss ($197,500 – $150,000) | 47,500 | |
| Goodwill | | 47,500 |
| To record goodwill impairment | | |

**Problem 5-11 (continued)**

**Part E**

PORTER COMPANY AND SUBSIDIARY
Consolidated Financial Statements
For the Year Ended December 31, 2012

| Consolidated Income Statement | | |
|---|---|---|
| Sales | | $1,550,000 |
| Cost of Sales | | 1,100,000 |
| Gross Profit | | 450,000 |
| Expenses: | | |
| Depreciation Expense | $96,000 | |
| Impairment Loss | 47,500 | |
| Other Expenses | 110,000 | 253,500 |
| Consolidated Net Income | | 196,500 |
| Noncontrolling Interest in Consolidated Income | | 19,300 |
| Controlling Interest in Consolidated Net Income | | $177,200 |

| Consolidated Statement of Retained Earnings | |
|---|---|
| Retained Earnings - Beginning of Year | $546,400 |
| Add: Net Income | 177,200 |
| | 723,600 |
| Less Dividends | 90,000 |
| Retained Earnings - End of Year | $633,600 |

PORTER COMPANY AND SUBSIDIARY
Consolidated Statement of Financial Position
December 31, 2012

| Assets | | |
|---|---|---|
| Current Assets: | | |
| Cash | $135,000 | |
| Accounts Receivable | 450,000 | |
| Inventory | 415,000 | |
| $1,000,000 | | |
| Noncurrent Assets: | | |
| Plant and Equipment (net) | 692,000 | |
| Land | 385,000 | |
| Goodwill | 150,000 | |
| 1,227,000 | | |
| Total Assets | | $2,227,000 |

| Liabilities And Stockholders' Equity | | |
|---|---|---|
| Liabilities: | | |
| Accounts Payable | | $242,000 |
| Notes Payable | | 120,000 |
| Total Liabilities | | 362,000 |
| Stockholders' Equity | | |
| Noncontrolling Interest in Net Assets | 231,400 | |
| Capital Stock | 1,000,000 | |
| Retained Earnings | 633,600 | |

| | |
|---|---|
| 1,865,000 | |
| Total Liabilities and Stockholders' Equity | $2,227,000 |

## Problem 5-11 (continued)

**Part F** If the subsidiary uses the LIFO assumption in pricing its inventory, a workpaper entry would be made each year debiting Inventory and crediting the Difference between Implied and Book Value, so long as there was no reduction in inventory quantities. The effect on the consolidated balances would be an additional $40,000 in inventory, with a corresponding additional $32,000 and $8,000 in beginning consolidated retained earnings and noncontrolling interest. The increase in inventory results from the additional amount assigned to the inventory account at acquisition, and will remain there because of the LIFO assumption. Beginning consolidated retained earnings and noncontrolling interest accounts are increased because under the LIFO assumption the $40,000 additional inventory has not passed through cost of goods sold.

**Part G** Porter Company's retained earnings on 12/31/2012 $766,000

Less Cumulative Effect to December 31, 2012 of the Assignment and Depreciation of the Difference between Implied and Book Value Assigned to:

| | 2010 | 2011 | 2012 | |
|---|---|---|---|---|
| Inventory | $32,000 | $0 | $0 | |
| Equipment | 20,800 | 20,800 | 20,800 | |
| Goodwill | 0 | 0 | 0 | |
| | $52,800 | $20,800 | $20,800 | (94,400) |
| Goodwill Impairment (2012) | | | | (38,000) |
| Controlling Retained Earnings on 12/31/2012 | | | | $633,600 |

## Problem 5-12

Computation and Allocation of Difference Schedule

| | Parent Share | Non-Controlling Share | Entire Value |
|---|---|---|---|
| Purchase price and implied value | **$1,000,000** | **111,111** | 1,111,111 * |
| Less: Book value of equity acquired | 621,000 | 69,000 | **690,000** |
| Difference between implied and book value | 379,000 | 42,111 | **421,111** |
| Equipment ($390,000 - $300,000) | (81,000) | (9,000) | **(90,000)** |
| Less: Accumulated Depreciation ($130,000 – $100,000) | 27,000 | 3,000 | **30,000** |
| Inventory ($210,000 - $160,000) | (45,000) | (5,000) | **(50,000)** |
| Land ($290,000 – $190,000) | (90,000) | (10,000) | **(100,000)** |
| Bond Discount ($205,556 – $150,000) | (50,000) | (5,556) | **(55,556)** |
| Balance | 140,000 | 15,555 | 155,555 |
| Goodwill | (140,000) | (15,555) | **(155,555)** |
| Balance | -0- | -0- | -0- |

*$1,000,000/.90

**Problem 5-12 (continued)**

| | | | |
|---|---|---|---|
| 2011 Amortization Schedule | | | |
| Equipment (10 year life) | 5,400 | 600 | **6,000** |
| Inventory (sold in 2011) | 45,000 | 5,000 | **50,000** |
| Bond Discount | 50,000 | 5,556 | **55,556** |
| Total | 100,400 | 11,156 | 111,556 |

| | | | |
|---|---|---|---|
| 2012 Amortization Schedule | | | |
| Equipment (10 year life) | 5,400 | 600 | **6,000** |
| Inventory (sold in 2011) | 0 | 0 | **0** |
| Bond Discount | 0 | 0 | **0** |
| Total | 5,400 | 600 | 6,000 |

*The Goodwill may also be calculated analytically as follows:

| | |
|---|---|
| Cost of Investment ($1,000,000/0.9) | $1,111,111 |
| Fair value acquired | (955,556) |
| Goodwill | $155,555 |

**Part A** **2011**

| | | |
|---|---|---|
| Cost of Goods Sold | 50,000 | |
| Gain on Early Extinguishment of Debt | 55,556 | |
| Land | 100,000 | |
| Equipment | 90,000 | |
| Goodwill | 155,555 | |
| Accumulated Depreciation | | 30,000 |
| Difference between Implied and Book Value | | 421,111 |
| | | |
| Depreciation Expense ($60,000/10) | 6,000 | |
| Accumulated Depreciation | | 6,000 |

To allocate and depreciate the difference between implied and book value

Treatment of the Amount of the Difference Assigned to Bond Discount

Date of Acquisition

| | | |
|---|---|---|
| Unamortized Discount on Bonds Payable | 55,556 | |
| Difference between Implied and Book Value | | 55,556 |

**Problem 5-12 (continued)**

**2011**

Book entry to record retirement in 2011 on Stevens books

| | | |
|---|---|---|
| Bonds Payable | 205,556 | |
| Cash | | 150,000 |
| Gain on Retirement of Debt | | 55,556 |

But from a consolidated point of view the gain should be $0:

| | | |
|---|---|---|
| Bonds Payable | 205,556 | |
| Unamortized Discount on Bonds Payable | | 55,556 |
| Cash | | 150,000 |

So entry in Consolidated Statements Workpaper for year ended December 31, 2011 is:

| | | |
|---|---|---|
| Gain on Retirement of Debt | 55,556 | |
| Difference between Implied and Book Value | | 55,556 |

Workpaper entries in years after 2011:

| | | |
|---|---|---|
| Beginning Retained Earnings-Palmer | 50,000 | |
| Noncontrolling Interest | 5,556 | |
| Difference between Implied and Book Value | | 55,556 |

**Problem 5-12 (continued)**

**Part B**

PALMER COMPANY AND SUBSIDIARY
Consolidated Statement Workpaper
For the Year Ended December 31, 2013

| | Palmer | Stevens | Eliminations | | Noncontrolling | Consolidated |
|---|---|---|---|---|---|---|
| | Company | Company | Dr. | Cr. | Interest | Balances |
| **Income Statement** | | | | | | |
| Sales | $620,000 | $340,000 | | | | $960,000 |
| Cost of Good Sold | 430,000 | 240,000 | | | | 670,000 |
| Gross Margin | 190,000 | 100,000 | | | | 290,000 |
| Depreciation Expense | 30,000 | 20,000 | (3b) 6,000 | | | 56,000 |
| Other Expenses | 60,000 | 35,000 | | | | 95,000 |
| Income from Operations | 100,000 | 45,000 | | | | 139,000 |
| Equity in Subsidiary Income | 40,500 | | (1) 40,500 | | | |
| Net/Consolidated Income | 140,500 | 45,000 | | | | 139,000 |
| Noncontrolling Interest in Income | | | | | 3,900 * | (3,900)* |
| Net Income to Retained Earnings | $140,500 | $45,000 | 46,500 | | 3,900 | $135,100 |
| **Statement of Retained Earnings** | | | | | | |
| 1/1Retained Earnings | | | | | | |
| Palmer Company | $315,600 | | (3a) 95,000<br>(3b) 10,800 | | | $209,800 |
| Stevens Company | | $210,000 | (2) 210,000 | | | |
| Net Income from above | 140,500 | 45,000 | 46,500 | | 3,900 | 135,100 |
| Dividends Declared | | | | | | |
| Palmer Company | (120,000) | | | | | (120,000) |
| Stevens Company | | (35,000) | | (1) 31,500 | (3,500) | |
| 12/31Retained Earnings to Balance Sheet | $336,100 | $220,000 | 362,300 | 31,500 | $400 | $224,900 |

**Problem 5-12 (continued)**

| | Palmer | Stevens | Eliminations | | Noncontrolling | Consolidated |
|---|---|---|---|---|---|---|
| | Company | Company | Dr. | Cr. | Interest | Balances |
| **Balance Sheet** | | | | | | |
| Cash | $201,200 | $151,000 | | | | $352,200 |
| Accounts Receivable | 221,000 | 173,000 | | | | 394,000 |
| Inventory | 100,400 | 81,000 | | | | 181,400 |
| Investment in Stevens Company | 1,027,000 | | | (1) 9,000<br>(2) 1,018,000 | | |
| Difference between Implied & Book Value | | | (2) 421,111 | (3) 421,111 | | |
| Equipment | 450,000 | 300,000 | (3a) 90,000 | | | 840,000 |
| Accumulated Depreciation | (300,000) | (140,000) | | (3a) 30,000<br>(3b) 18,000 | | (488,000) |
| Land | 360,000 | 290,000 | (3a)100,000 | | | 750,000 |
| Goodwill | | | (3a)155,555 | | | 155,555 |
| Total Assets | 2,059,600 | 855,000 | | | | 2,185,155 |
| | | | | | | |
| Accounts Payable | $323,500 | $135,000 | | | | $458,500 |
| Bonds Payable | 400,000 | | | | | 400,000 |
| Capital Stock: | | | | | | |
| Palmer Company | 1,000,000 | | | | | 1,000,000 |
| Stevens Company | | 500,000 | (2) 500,000 | | | |
| Retained Earnings from above | 336,100 | 220,000 | 362,300 | 31,500 | 400 | 224,900 |
| 1/1 Nonconntrolling Interest in Net Assets | | | (3a) 10,556<br>(3b) 1,200 | (2) 113,111 | 101,355 | |
| 12/31 Noncontrolling Interest In Net Assets | | | | | $101,755 | $101,755 |
| Total Liabilities and Equity | $2,059,600 | $855,000 | $1,640,722 | $1,640,722 | | $2,185,155 |

*Noncontrolling Interest in Consolidated Income = 0.10 × $45,000 – $600 = $3,900
Explanations of workpaper entries are on separate page.

**Problem 5-12 (continued)**

Explanations of workpaper entries:

| | | |
|---|---|---|
| (1) Equity in Subsidiary Income | 40,500 | |
| Dividends Declared ($35,000 × .90) | | 31,500 |
| Investment in Stevens Company | | 9,000 |

To reverse effect of parent company entries during the year for subsidiary dividends and income

| | | |
|---|---|---|
| (2) Beginning Retained Earnings-Stevens Company | 210,000 | |
| Common Stock-Stevens Company | 500,000 | |
| Difference between Implied and Book Value | 421,111 | |
| Investment in Stevens Company ($1,027,000 – $9,000) | | 1,018,000 |
| Noncontrolling Interest ($111,111 + ($210,000 – $190,000) x .10) | | 113,111 |

To eliminate investment account and create noncontrolling interest account

| | | |
|---|---|---|
| (3) Beginning Retained Earnings-Palmer Company<br>[$45,000 + $50,000 + (2 × $5,400)] | 105,800 | |
| Noncontrolling Interest [$5,000 + $5,556 + (2 x $600)] | 11,756 | |
| Depreciation Expense ($60,000/10) | 6,000 | |
| Plant and Equipment | 90,000 | |
| Land | 100,000 | |
| Goodwill[a] | 155,555 | |
| Accumulated Depreciation [$30,000 + (3 × $6,000)] | | 48,000 |
| Difference between Implied and Book Value | | 421,111 |

To allocate and depreciate the difference between implied and book value

Alternative to entry (3)

| | | |
|---|---|---|
| (3a) Beginning Retained Earnings-Palmer Company<br>[$45,000 + $50,000 ] | 95,000 | |
| Noncontrolling Interest [$5,000 + $5,556] | 10,556 | |
| Equipment | 90,000 | |
| Land | 100,000 | |
| Goodwill | 155,555 | |
| Accumulated Depreciation | | 30,000 |
| Difference between Implied and Book Value | | 421,111 |

| | | |
|---|---|---|
| (3b) Beginning Retained Earnings-Palmer Company | 10,800 | |
| Noncontrolling Interest ($600 x 2) | 1,200 | |
| Depreciation Expense ($60,000/10) | 6,000 | |
| Accumulated Depreciation [(3 × $6,000)] | | 18,000 |

| | |
|---|---|
| **Part C** Palmer Company's net income from its own operations | $100,000 |
| Palmer Company's share of Stevens Company’s income (0.90 × $39,000*) | 35,100 |
| Controlling interest in consolidated net income | $135,100 |

*$45,000 – ($60,000/10) = $39,000

## Problem 5-13

**Part A**

| | | |
|---|---|---|
| Equipment | 61,467 | |
| Land | 40,978 | |
| Patents | 102,444 | |
| Revaluation Capital | | 204,889 |

| | |
|---|---|
| Implied fair value ($800,000/0.9) | $888,889 |
| Book Value ($300,000 + $164,000 + $220,000) | 684,000 |
| Amount to push down | $204,889 |

Adjustment to:

| | | | |
|---|---|---|---|
| Equipment | $204,889 × 0.30 | = | $61,467 |
| Land | $204,889 × 0.20 | = | $40,978 |
| Patents | $204,889 × 0.50 | = | $102,444 |

**Part B Worksheet entries**

| | | | |
|---|---|---|---|
| (1) | Common Stock - Sensor | 300,000 | |
| | Other Contributed Capital - Sensor | 164,000 | |
| | Retained Earnings – Sensor | 220,000 | |
| | Revaluation Capital | 204,889 | |
| | Investment in Sensor | | 800,000 |
| | Noncontrolling Interest ($800,000/0.9 x 0.1) | | 88,889 |

**Problem 5-13 (continued)**

PRESS COMPANY AND SUBSIDIARY
Consolidated Balance Sheet Workpaper
January 1, 2011

**Part B**

| | Press | Sensor | Eliminations | | Noncontrolling | Consolidated |
|---|---|---|---|---|---|---|
| | Company | Company | Dr. | Cr. | Interest | Balances |
| Cash | $265,000 | $38,000 | | | | $303,000 |
| Receivables | 422,500 | 76,000 | | | | 498,500 |
| Inventory | 216,500 | 124,000 | | | | 340,500 |
| Investment in Sensor Company | 800,000 | | | (1) 800,000 | | |
| Buildings | 465,000 | 322,000 | | | | 787,000 |
| Equipment | 229,000 | 246,467 | | | | 475,467 |
| Land | 188,000 | 140,978 | | | | 328,978 |
| Patents | 167,500 | 190,444 | | | | 357,944 |
| Total Assets | $2,753,500 | $1,137,889 | | | | $3,091,389 |
| | | | | | | |
| Liabilities: | $667,000 | $249,000 | | | | $916,000 |
| Common Stock: | | | | | | |
| Press Company | 700,000 | | | | | 700,000 |
| Sensor Company | | 300,000 | (1) 300,000 | | | |
| Other Contributed Capital: | | | | | | |
| Press Company | 846,000 | | | | | 846,000 |
| Sensor Company | | 164,000 | (1) 164,000 | | | |
| Retained Earnings: | | | | | | |
| Press Company | 540,500 | | | | | 540,500 |
| Sensor Company | | 220,000 | (1) 220,000 | | | |
| Revaluation Capital | | 204,889 | (1) 204,889 | | | |
| Noncontrolling Interest in Net Assets | | | | (1) 88,889 | $88,889 | 88,889 |
| Total Liabilities and Equity | $2,753,500 | $1,137,889 | $888,889 | $888,889 | | $3,091,389 |

(1) To eliminate the investment account and create noncontrolling interest account.

**Problem 5-14**

| | | | Net Assets |
|---|---|---|---|
| **Part A** | Imputed Fair Value ($820,000/0.8) | | $1,025,000 |
| | Recorded Book Value ($100,000 + $500,000) | | 600,000 |
| | Unrecorded Values | | $425,000 |
| | | | |
| | Allocated to Identifiable Assets: | | |
| | Equipment | $125,000 | |
| | Land | 62,500 | |
| | Inventory | 37,500 | 225,000 |
| | Goodwill | | $200,000 |

Entry on Books of WayDown Company, January 2, 2009:

| | | |
|---|---|---|
| Inventory | 37,500 | |
| Equipment | 125,000 | |
| Land | 62,500 | |
| Goodwill | 200,000 | |
| Revaluation Capital | | 425,000 |

Additional expense recorded on books of WayDown Company because of push down of values based on fair value of WayDown Company as a whole implied by the transaction

| | 2009 | 2010 | 2011 |
|---|---|---|---|
| Cost of Goods Sold | $37,500 | $0 | $0 |
| Depreciation Expense ($125,000/5) | 25,000 | 25,000 | 25,000 |
| | $62,500 | $25,000 | $25,000 |

**Problem 5-14 (continued)**

**Part B**

PUSH COMPANY AND SUBSIDIARY
Consolidated Statement Workpaper
For the Year Ended December 31, 2009

| | Push Company | WayDown Company | Eliminations Dr. | Eliminations Cr. | Noncontrolling Interest | Consolidated Balances |
|---|---|---|---|---|---|---|
| **Income Statement** | | | | | | |
| Sales | $1,050,000 | $400,000 | | | | $1,450,000 |
| Dividend Income | 40,000 | | (2) 40,000 | | | |
| Total Revenue | 1,090,000 | 400,000 | | | | 1,450,000 |
| Cost of Goods Sold Expense | $850,000 | 180,000 | | | | 1,030,000 |
| Depreciation Expense | 35,000 | 50,000 | | | | 85,000 |
| Other Expenses | 65,000 | 50,000 | | | | 115,000 |
| Total Cost & Expense | 950,000 | 280,000 | | | | 1,230,000 |
| Net/Consolidated income | 140,000 | 120,000 | | | | 220,000 |
| Noncontrolling Interest In Income | | | | | 24,000 | (24,000)* |
| Net Income to Retained Earnings | $140,000 | $120,000 | $40,000 | | $24,000 | $196,000 |
| **Statement of Retained Earnings** | | | | | | |
| 1/1Retained Earnings | | | | | | |
| Push Company | $480,000 | | | (1) 2,000 | | $482,000 |
| WayDown Company | | $102,500 | (3) 102,500 | | | |
| Net Income from above | 140,000 | 120,000 | 40,000 | | 24,000 | 196,000 |
| Dividends Declared | | | | | | |
| Push Company | (100,000) | | | | | (100,000) |
| WayDown Company | | (50,000) | | (2) 40,000 | (10,000) | |
| 12/31Retained Earnings to Balance Sheet | $520,000 | $172,500 | $142,500 | $42,000 | $14,000 | $578,000 |

**Problem 5-14 (continued)**

| | Push | WayDown | Eliminations | | Noncontrolling | Consolidated |
|---|---|---|---|---|---|---|
| | Company | Company | Dr. | Cr. | Interest | Balances |
| **Balance Sheet** | | | | | | |
| Cash | $ 80,000 | $ 35,000 | | | | $115,000 |
| Accounts Receivable | 250,000 | 170,000 | | | | 420,000 |
| Inventory | 230,000 | 150,000 | | | | 380,000 |
| Investment in WayDown Company | 820,000 | | (1) 2,000 | (3) 822,000 | | |
| Land | | 362,500 | | | | 362,500 |
| Plant and Equipment | 350,000 | 300,000 | | | | 650,000 |
| Goodwill | | 200,000 | | | | 200,000 |
| Total assets | $1,730,000 | $1,217,500 | | | | $2,127,500 |
| | | | | | | |
| Accounts Payable | $ 160,000 | $ 100,000 | | | | $260,000 |
| Notes Payable | 50,000 | 20,000 | | | | 70,000 |
| Revaluation Capital-WayDown Co. | | 425,000 | (3) 425,000 | | | |
| Capital Stock: | | | | | | |
| Push Company | 1,000,000 | | | | | 1,000,000 |
| WayDown Company | | 500,000 | (3) 500,000 | | | |
| Retained Earnings from above | 520,000 | 172,500 | 142,500 | 42,000 | 14,000 | 578,000 |
| 1/1 Noncontrolling Interest in Net Assets | | | | (3) 205,500 | 205,500 | |
| 12/31 Noncontrolling Interest | | | | | $219,500 | 219,500 |
| Total liabilities & equity | $1,730,000 | $1,217,500 | $1,069,500 | $1,069,500 | | $2,127,500 |

*Noncontrolling Interest in Income = 0.20 × $120,000 = $24,000
Explanations of workpaper entries are on separate page

**Problem 5-14 (continued)**

Explanations of workpaper entries:

| | | |
|---|---|---|
| (1) Investment in WayDown | 2,000 | |
| Beginning Retained Earnings - Push | | 2,000 |
| To establish reciprocity/convert to equity (.80 × ($102,500 – $100,000)] | | |
| | | |
| (2) Dividend Income | 40,000 | |
| Dividends Declared (.80)($50,000) | | 40,000 |
| To eliminate intercompany dividends | | |
| | | |
| (3) 1/1 Retained Earnings - WayDown | 102,500 | |
| Capital Stock - WayDown | 500,000 | |
| Revaluation Capital | 425,000 | |
| Investment in WayDown Company ($820,000 + $2,000) | | 822,000 |
| Noncontrolling Interest [($820,000/0.8 x 0.2) + ($102,500 – $100,000) x .2)] | | 205,500 |
| To eliminate investment account and create noncontrolling interest account | | |

**Part C** (1) Consolidated net incomes are the same
(2) Consolidated retained earnings are the same
(3) & (4) Consolidated net assets and noncontrolling interest in consolidated net assets are the same

**Problem 5-15**

Computation and Allocation of Difference Schedule

| | Parent Share | Non-Controlling Share | Entire Value |
|---|---|---|---|
| Purchase price and implied value | **$850,000** | **212,500** | 1,062,500 * |
| Less: Book value of equity acquired | 504,000 | 126,000 | **630,000** |
| Difference between implied and book value | 346,000 | 86,500 | **432,500** |
| Equipment | (104,000) | (26,000) | **(130,000)** |
| Land | (52,000) | (13,000) | **(65,000)** |
| Inventory | (32,000) | (8,000) | **(40,000)** |
| Balance | 158,000 | 39,500 | 197,500 |
| Goodwill | (158,000) | (39,500) | **(197,500)** |
| Balance | -0- | -0- | -0- |

*$850,000/.80

**Complete Equity Method Workpaper entries – Year 2010**

| | | |
|---|---|---|
| (1) Equity in Subsidiary Income (($100,000)(.80) – $32,000 – $20,800) | 27,200 | |
| Dividends Declared ($25,000 × .80) | | 20,000 |
| Investment in Salem Company | | 7,200 |
| To eliminate intercompany dividends | | |
| (2) Beginning Retained Earnings - Salem Co. | 80,000 | |
| Common Stock - Salem | 550,000 | |
| Difference between Implied and Book Value | 432,500 | |
| Investment in Salem Company | | 850,000 |
| Noncontrolling Interest | | 212,500 |
| To eliminate investment account and create noncontrolling interest account | | |
| (3) Cost of Goods Sold | 40,000 | |
| Land | 65,000 | |
| Plant and Equipment (5 year life) | 130,000 | |
| Goodwill | 197,500 | |
| Difference between Implied and Book Value | | 432,500 |
| To allocate the difference between implied and book value | | |
| (4) Depreciation Expense ($130,000/5) | 26,000 | |
| Plant and Equipment | | 26,000 |

**Problem 5-15 (continued)**
**Complete Equity Method – Worksheet Entries – Year 2011**

| | | | |
|---|---|---|---|
| (1) | Equity in Subsidiary Income ($110,000)(.80) - $20,800 | 67,200 | |
| | Dividends Declared ($35,000 × .80) | | 28,000 |
| | Investment in Salem Company | | 39,200 |
| | To eliminate intercompany dividends and income | | |
| (2) | Beginning Retained Earnings - Salem Co. ($80,000 + $75,000) | 155,000 | |
| | Common Stock - Salem | 550,000 | |
| | Difference between Implied and Book Value | 432,500 | |
| | Investment in Salem Company ($850,000 + $80,000 – $20,000) | | 910,000 |
| | Noncontrolling Interest ($212,500 + ($155,000 - $80,000) × .2) | | 227,500 |
| | To eliminate investment account and create noncontrolling interest account | | |
| (3) | Investment in Salem Company | 32,000 | |
| | Noncontrolling Interest | 8,000 | |
| | Land | 65,000 | |
| | Plant and Equipment (5 year life) | 130,000 | |
| | Goodwill | 197,500 | |
| | Difference between Implied and Book Value | | 432,500 |
| | To allocate the difference between implied and book value | | |
| (4) | Investment in Salem Company | 20,800 | |
| | Noncontrolling Interest | 5,200 | |
| | Depreciation Expense ($130,000/5) | 26,000 | |
| | Plant and Equipment | | 52,000 |

## Problem 5-15 (continued)

### Part C

T-account Calculation of Controlling and Noncontrolling Interest in Consolidated Income
For Year Ended December 31, 2012

Noncontrolling Interest in Consolidated Income

| | | | |
|---|---|---|---|
| Additional depreciation of the difference between implied and book value related to: | | Net income reported by Salem Company | 170,000 |
| Depreciation Expense ($130,000/5) | 26,000 | | |
| Goodwill Impairment ($197,500 - $150,000) | 47,500 | | |
| | | Adjusted income of Salem | 96,500 |
| | | Noncontrolling Ownership percentage interest | 20% |
| | | Noncontrolling Interest in Consolidated Income | 19,300 |

Controlling Interest in Consolidated Income

| | | | |
|---|---|---|---|
| | | Porter Company's net income from its independent operations ($177,200 reported net income less $77,200 equity in subsidiary income included therein) | $100,000 |
| | | Porter Company's share of the adjusted income of Salem Company (.8 X $96,500) | 77,200 |
| | | Controlling interest in Consolidated Net Income | $177,200 |

## Problem 5-15 (continued)

**Part D**

| | Porter | Salem | Eliminations | | Noncontrolling | Consolidated |
|---|---|---|---|---|---|---|
| Income Statement | Company | Company | Debit | Credit | Interest | Balances |
| Sales | $1,100,000 | $450,000 | | | | $1,550,000 |
| Equity in Subsidiary Income | 77,200 | | (1) 77,200 | | | |
| Total Revenue | 1,177,200 | 450,000 | | | | 1,550,000 |
| Cost of Goods Sold | 900,000 | 200,000 | | | | 1,100,000 |
| Depreciation Expense | 40,000 | 30,000 | (4) 26,000 | | | 96,000 |
| Impairment Loss | | | (5) 47,500 | | | 47,500 |
| Other Expenses | 60,000 | 50,000 | | | | 110,000 |
| Total Cost and Expense | 1,000,000 | 280,000 | | | | 1,353,500 |
| Net/Consolidated Income | 177,200 | 170,000 | | | | 196,500 |
| Noncontrolling Interest in Consolid. Income | | | | | 19,300* | (19,300) |
| Net Income to Retained Earnings | $177,200 | $170,000 | $150,700 | $0 | $19,300 | $177,200 |
| | | | | | | |
| Retained Earnings Statement | | | | | | |
| 1/1 Retained Earnings: | | | | | | |
| Porter Company | $546,400 | | | | | $546,400 |
| Salem Company | | $230,000 | (2) 230,000 | | | |
| Net Income from Above | 177,200 | 170,000 | 150,700 | 0 | 19,300 | 177,200 |
| Dividends Declared: | | | | | | |
| Porter Company | (90,000) | | | | | (90,000) |
| Salem Company | | (60,000) | | (1) 48,000 | (12,000) | |
| 12/31/ Retained Earnings to Balance Sheet | $633,600 | $340,000 | $380,700 | $48,000 | $7,300 | $633,600 |

**Problem 5-15 (continued)**

| | Porter | Salem | | Eliminations | | | Noncontrolling | Consolidated |
|---|---|---|---|---|---|---|---|---|
| Balance Sheet | Company | Company | | Debit | | Credit | Interest | Balances |
| Cash | $70,000 | $65,000 | | | | | | $135,000 |
| Accounts Receivable | 260,000 | 190,000 | | | | | | 450,000 |
| Inventory | 240,000 | 175,000 | | | | | | 415,000 |
| Investment in Salem Comp. | 925,600 | | (3) | 32,000 | (1) | 29,200 | | |
| | | | (4) | 41,600 | (2) | 970,000 | | |
| Difference between Implied and Book Value | | | (2) | 432,500 | (3) | 432,500 | | |
| Land | | 320,000 | (3) | 65,000 | | | | 385,000 |
| Plant and Equipment | 360,000 | 280,000 | (3) | 130,000 | (4) | 78,000 | | 692,000 |
| Goodwill | | | (3) | 197,500 | (5) | 47,500 | | 150,000 |
| Total Assets | $1,855,600 | $1,030,000 | | | | | | $2,227,000 |
| Accounts Payable | $132,000 | $110,000 | | | | | | $242,000 |
| Notes Payable | 90,000 | 30,000 | | | | | | 120,000 |
| Common stock: | | | | | | | | |
| Porter Company | 1,000,000 | | | | | | | 1,000,000 |
| Salem Company | | 550,000 | (2) | 550,000 | | | | |
| Retained earnings from above | 633,600 | 340,000 | | 380,700 | | 48,000 | 7,300 | 633,600 |
| 1/1 Noncontrolling Interest in Net Assets | | | (3) | 8,000 | (2) | 242,500 | ** 224,100 | |
| | | | (4) | 10,400 | | | | |
| 12/31 Noncontrolling Interest in Net Assets | | | | | | | $231,400 | 231,400 |
| Total Liabilities and Equity | $1,855,600 | $1,030,000 | | $1,847,700 | | $1,847,700 | | $2,227,000 |

* Noncontrolling Interest in Income =.2 × $170,000 – (.2 x $26,000) – (.2 x $47,500) = $19,300
** $212,500 + ($230,000 – $80,000) x .20 = $242,500
Explanations of workpaper entries are on the following page

**Problem 5-15 (continued)**

Computation and Allocation of Difference Schedule

| | Parent Share | Non-Controlling Share | Entire Value |
|---|---|---|---|
| Purchase price and implied value | **$850,000** | **212,500** | 1,062,500 * |
| Less: Book value of equity acquired | 504,000 | 126,000 | **630,000** |
| Difference between implied and book value | 346,000 | 86,500 | **432,500** |
| Equipment | (104,000) | (26,000) | **(130,000)** |
| Land | (52,000) | (13,000) | **(65,000)** |
| Inventory | (32,000) | (8,000) | **(40,000)** |
| Balance | 158,000 | 39,500 | 197,500 |
| Goodwill | (158,000) | (39,500) | **(197,500)** |
| Balance | -0- | -0- | -0- |

*$850,000/.80

Explanations of workpaper entries:

| | | | |
|---|---|---|---|
| (1) | Equity in Subsidiary Income | 77,200 | |
| | Dividends Declared ($60,000 × .8) | | 48,000 |
| | Investment in Salem Company | | 29,200 |
| | To reverse the effect of parent company entries during the year for subsidiary dividends and income | | |
| (2) | Beginning Retained Earnings - Salem Co. | 230,000 | |
| | Common Stock – Salem | 550,000 | |
| | Difference between Implied and Book Value | 432,500 | |
| | Investment in Salem Company | | 970,000 |
| | Noncontrolling Interest | | 242,500 |
| | To eliminate investment account and create noncontrolling interest account | | |
| (3) | Investment in Salem Company | 32,000 | |
| | Noncontrolling Interest | 8,000 | |
| | Land | 65,000 | |
| | Plant and Equipment | 130,000 | |
| | Goodwill | 197,500 | |
| | Difference between Implied and Book Value | | 432,500 |
| | To allocate the difference between implied and book value | | |
| (4) | Investment in Salem Company (2)($20,800) | 41,600 | |
| | Noncontrolling Interest (2)($5,200) | 10,400 | |
| | Depreciation Expense ($130,000/5) | 26,000 | |
| | Plant and Equipment, net | | 78,000 |
| (5) | Impairment Loss ($197,500 - $150,000) | 47,500 | |
| | Goodwill | | 47,500 |
| | To record goodwill impairment | | |

**Problem 5-15 - Part E**

PORTER COMPANY AND SUBSIDIARY
Consolidated Financial Statements
For the Year Ended December 31, 2012

| Consolidated Income Statement | | |
|---|---|---|
| Sales | | $1,550,000 |
| Cost of Goods Sold | | 1,100,000 |
| Gross Profit | | 450,000 |
| Expenses: | | |
| Depreciation Expense | $96,000 | |
| Impairment Loss | 47,500 | |
| Other Expenses | 110,000 | 253,500 |
| Consolidated Income | | 196,500 |
| Noncontrolling Interest in Consolidated Income | | 19,300 |
| Net Income | | $177,200 |

| Consolidated Statement of Retained Earnings | |
|---|---|
| Retained Earnings - Beginning of Year | $546,400 |
| Add: Net Income | 177,200 |
| | 723,600 |
| Less Dividends | 90,000 |
| Retained Earnings - End of Year | $633,600 |

PORTER COMPANY AND SUBSIDIARY
Consolidated Statement of Financial Position
December 31, 2012

| Assets | | |
|---|---|---|
| Current Assets: | | |
| Cash | $135,000 | |
| Accounts Receivable | 450,000 | |
| Inventory | 415,000 | |
| $1,000,000 | | |
| Noncurrent Assets: | | |
| Plant and Equipment (net) | 692,000 | |
| Land | 385,000 | |
| Goodwill | 150,000 | |
| 1,227,000 | | |
| Total Assets | | $2,227,000 |

| Liabilities And Stockholders' Equity | | |
|---|---|---|
| Liabilities: | | |
| Accounts Payable | | $242,000 |
| Notes Payable | | 120,000 |
| Total Liabilities | | 362,000 |
| Stockholders' Equity | | |
| Noncontrolling Interest in Net Assets | 231,400 | |
| Capital Stock | 1,000,000 | |
| Retained Earnings | 633,600 | |
| 1,865,000 | | |

| | |
|---|---|
| Total Liabilities and Stockholders' Equity | $2,227,000 |

**Problem 5-15 (continued)**

**Part F** If the subsidiary uses the LIFO assumption in pricing its inventory, a workpaper entry would be made each year debiting Inventory and crediting the Difference between Implied and Book Value, so long as there was no reduction in inventory quantities. The effect on the consolidated balances would be an additional $40,000 in inventory, with a corresponding additional $32,000 and $8,000 in the investment account and noncontrolling interest. The increase in inventory results from the additional amount assigned to the inventory account at acquisition, and will remain there because of the LIFO assumption. The investment account and noncontrolling interest account are increased because under the LIFO assumption the $40,000 additional inventory has not passed through cost of goods sold.

**Part G**

| | | | | |
|---|---|---|---|---|
| Porter Company's retained earnings on 12/31/2012 | | | | $766,000 |
| Less Cumulative Effect to December 31, 2012 of the Assignment and Depreciation of the Difference between Implied and Book Value Assigned to: | | | | |
| | 2010 | 2011 | 2012 | |
| Inventory | $32,000 | $0 | $0 | |
| Equipment | 20,800 | 20,800 | 20,800 | |
| | $52,800 | $20,800 | $20,800 | (94,400) |
| Goodwill Impairment (2012) | | | | (38,000) |
| Controlling Retained Earnings on 12/31/2012 | | | | $633,600 |

**Problem 5-16**

Computation and Allocation of Difference Schedule

| | Parent Share | Non-Controlling Share | Entire Value |
|---|---|---|---|
| Purchase price and implied value | **$1,000,000** | **111,111** | 1,111,111 * |
| Less: Book value of equity acquired | 621,000 | 69,000 | **690,000** |
| Difference between implied and book value | 379,000 | 42,111 | **421,111** |
| Equipment ($390,000 – $300,000) | (81,000) | (9,000) | **(90,000)** |
| Less:Accumulated Depreciation ($130,000 – $100,000) | 27,000 | 3,000 | **30,000** |
| Inventory ($210,000 – $160,000) | (45,000) | (5,000) | **(50,000)** |
| Land ($290,000 – $190,000) | (90,000) | (10,000) | **(100,000)** |
| Bond Discount ($205,556 – $150,000) | (50,000) | (5,556) | **(55,556)** |
| Balance | 140,000 | 15,555 | 155,555 |
| Goodwill | (140,000) | (15,555) | **(155,555)** |
| Balance | -0- | -0- | -0- |

*$1,000,000/.90

| 2011 Amortization Schedule | | | |
|---|---|---|---|
| Equipment (10 year life) | 5,400 | 600 | **6,000** |
| Inventory (sold in 2011) | 45,000 | 5,000 | **50,000** |
| Bond Discount | 50,000 | 5,556 | **55,556** |
| Total | 100,400 | 11,156 | 111,556 |

**Problem 5-16 (continued)**

| 2012 Amortization Schedule | | | |
|---|---|---|---|
| Equipment (10 year life) | 5,400 | 600 | **6,000** |
| Inventory (sold in 2011) | 0 | 0 | **0** |
| Bond Discount | 0 | 0 | **0** |
| Total | 5,400 | 600 | 6,000 |

*The Goodwill may also be calculated analytically as follows:

| | |
|---|---|
| Cost of Investment ($1,000,000/0.9) | $1,111,111 |
| Fair value acquired | (955,556) |
| Goodwill | $155,555 |

**Part A** **2011**

| | | |
|---|---|---|
| Cost of Goods Sold | 50,000 | |
| Gain on Early Extinguishment of Debt | 55,556 | |
| Land | 100,000 | |
| Equipment | 90,000 | |
| Goodwill | 155,555 | |
| Accumulated Depreciation | | 30,000 |
| Difference between Implied and Book Value | | 421,111 |
| | | |
| Depreciation Expense ($60,000/10) | 6,000 | |
| Accumulated Depreciation | | 6,000 |

To allocate and depreciate the difference between implied and book value

Treatment of the Amount of the Difference Assigned to Bond Discount

Date of Acquisition

| | | |
|---|---|---|
| Discount on Bonds Payable | 55,556 | |
| Difference between Implied and Book Value | | 55,556 |

**2011**

Book entry to record retirement in 2011 on Stevens books

| | | |
|---|---|---|
| Bonds Payable | 205,556 | |
| Cash | | 150,000 |
| Gain on Retirement of Debt | | 55,556 |

But from consolidated point of view the gain should be $0:

| | | |
|---|---|---|
| Bonds Payable | 205,556 | |
| Discount on Bonds Payable | | 55,556 |
| Cash | | 150,000 |

## Problem 5-16 (continued)

So entry in Consolidated Statements Workpaper for year ended December 31, 2011 is:

| | | |
|---|---|---|
| Gain on Retirement of Debt | 55,556 | |
| Difference between Implied and Book Value | | 55,556 |

Workpaper entries in years after 2011:

| | | |
|---|---|---|
| Beginning Retained Earnings-Palmer | 50,000 | |
| Noncontrolling Interest | 5,556 | |
| Difference between Implied and Book Value | | 55,556 |

**Problem 5-16 (continued)**

PALMER COMPANY AND SUBSIDIARY
Consolidated Statement Workpaper
For the Year Ended December 31, 2013

**Part B**

| | Palmer Company | Stevens Company | Eliminations Dr. | Eliminations Cr. | Noncontrolling Interest | Consolidated Balance |
|---|---|---|---|---|---|---|
| Income Statement | | | | | | |
| Sales | $620,000 | $340,000 | | | | $960,000 |
| Cost of Good Sold | 430,000 | 240,000 | | | | 670,000 |
| Gross Margin | 190,000 | 100,000 | | | | 290,000 |
| Depreciation Expense | 30,000 | 20,000 | (3b) 6,000 | | | 56,000 |
| Other Expenses | 60,000 | 35,000 | | | | 95,000 |
| Income from Operations | 100,000 | 45,000 | | | | 139,000 |
| Equity in Subsidiary Income | 35,100 | | (1) 35,100 | | | |
| Net/Consolidated Income | 135,100 | 45,000 | | | | 139,000 |
| Noncontrolling Interest in Income | | | | | 3,900 | (3,900)* |
| Net Income to Retained Earnings | $135,100 | $45,000 | 41,100 | | 3,900 | $135,100 |
| Statement of Retained Earnings | | | | | | |
| 1/1Retained Earnings | | | | | | |
| Palmer Company | $209,800 | | | | | $209,800 |
| Stevens Company | | $210,000 | (2) 210,000 | | | |
| Net Income from above | 135,100 | 45,000 | 41,100 | | 3,900 | 135,100 |
| Dividends Declared | | | | | | |
| Palmer Company | (120,000) | | | | | (120,000) |
| Stevens Company | | (35,000) | | (1) 31,500 | (3,500) | |
| 12/31Retained Earnings to Balance Sheet | $224,900 | $220,000 | 251,100 | 31,500 | $400 | $224,900 |

**Problem 5-16 (continued)**

| | Palmer | Stevens | Eliminations | | Noncontrolling | Consolidated |
|---|---|---|---|---|---|---|
| | Company | Company | Dr. | Cr. | Interest | Balance |
| Balance Sheet | | | | | | |
| Cash | $201,200 | $151,000 | | | | $352,200 |
| Accounts Receivable | 221,000 | 173,000 | | | | 394,000 |
| Inventory | 100,400 | 81,000 | | | | 181,400 |
| Investment in Stevens Company | 915,800 | | (3a) 95,000 | (1) 3,600 | | |
| | | | (3b) 10,800 | (2) 1,018,000 | | |
| Difference between Implied & Book Value | | | (2) 421,111 | (3a) 421,111 | | |
| Equipment | 450,000 | 300,000 | (3a) 90,000 | | | 840,000 |
| Accumulated Depreciation | (300,000) | (140,000) | | (3a) 30,000 | | (488,000) |
| | | | | (3b) 18,000 | | |
| Land | 360,000 | 290,000 | (3a)100,000 | | | 750,000 |
| Goodwill | | | (3a)155,555 | | | 155,555 |
| Total Assets | 1,948,400 | 855,000 | | | | 2,185,155 |
| | | | | | | |
| Accounts Payable | $323,500 | $135,000 | | | | $458,500 |
| Bonds Payable | 400,000 | | | | | 400,000 |
| | | | | | | |
| Capital Stock: | | | | | | |
| Palmer Company | 1,000,000 | | | | | 1,000,000 |
| Stevens Company | | 500,000 | (2) 500,000 | | | |
| Retained Earnings from above | 224,900 | 220,000 | 251,100 | 31,500 | 400 | 224,900 |
| 1/1 Nonconntrolling Interest in Net | | | (3a) 10,556 | (2) 113,111 | 101,355 | |
| Assets | | | (3b) 1,200 | | | |
| 12/31 Noncontrolling Interest In Net Assets | | | | | $101,755 | $101,755 |
| Total Liabilities and Equity | $1,948,400 | $855,000 | $1,635,322 | $1,635,322 | | $2,185,155 |

*Noncontrolling Interest in Consolidated Income = 0.10 × $45,000 - $600 = $3,900
Explanations of workpaper entries are on separate page.

**Problem 5-16 (continued)**

Explanations of workpaper entries:

| | | | |
|---|---|---|---|
| (1) | Equity in Subsidiary Income | 35,100 | |
| | Investment in Stevens Company | | 3,600 |
| | Dividends Declared ($35,000 × .90) | | 31,500 |
| | To reverse effect of parent company entries during the year for subsidiary dividends and income | | |
| (2) | Beginning Retained Earnings-Stevens Company. | 210,000 | |
| | Common Stock-Stevens Company | 500,000 | |
| | Difference between Implied and Book Value | 421,111 | |
| | Investment in Stevens Company * | | 1,018,000 |
| | Noncontrolling Interest ($111,111 + ($210,000 – $190,000) x .10) | | 113,111 |
| | To eliminate investment account and create noncontrolling interest account | | |
| | * $1,000,000 + [$210,000 - $190,000) × .90)] | | |
| (3) | Investment in Stevens Company<br>[$45,000 + $50,000 + (2 × $5,400)] | 105,800 | |
| | Noncontrolling Interest [$5,000 + $5,556 + (2 x $600)] | 11,756 | |
| | Depreciation Expense ($60,000/10) | 6,000 | |
| | Plant and Equipment | 90,000 | |
| | Land | 100,000 | |
| | Goodwill | 155,555 | |
| | Accumulated Depreciation [$30,000 + (3 × $6,000)] | | 48,000 |
| | Difference between Implied and Book Value | | 421,111 |
| | To allocate and depreciate the difference between implied and book value | | |

Alternative to entry (3)

| | | | |
|---|---|---|---|
| (3a) | Investment in Stevens Company<br>[$45,000 + $50,000] | 95,000 | |
| | Noncontrolling Interest [$5,000 + $5,556] | 10,556 | |
| | Equipment | 90,000 | |
| | Land | 100,000 | |
| | Goodwill | 155,555 | |
| | Accumulated Depreciation | | 30,000 |
| | Difference between Implied and Book Value | | 421,111 |
| (3b) | Investment in Stevens Company | 10,800 | |
| | Noncontrolling Interest ($600 x 2) | 1,200 | |
| | Depreciation Expense ($60,000/10) | 6,000 | |
| | Accumulated Depreciation [(3 × $6,000)] | | 18,000 |

| | | |
|---|---|---|
| **Part C** | Palmer Company's net income from its own operations | $100,000 |
| | Palmer Company's share of Stevens Company's income (0.90 × $39,000) | 35,100 |
| | Controlling interest in consolidated Net Income | $135,100 |

*$45,000 – ($60,000/10) = $39,000

**Problem 5-17**
**Part A**

| | | | | Yearly Amortization |
|---|---|---|---|---|
| (1) | Price with a P/E ratio of 10: (10)($15,000) | | $150,000 | |
| | Book Value of Equity Acquired ($100,000 – $17,000 – $18,000) | | 65,000 | |
| | Excess of cost over book value | | 85,000 | |
| | Allocated to: | | | |
| | In-process R&D | $30,000 | | |
| | Assets to fair value ($105,000 – $65,000) | 40,000 | | $4,000 |
| | | | 70,000 | |
| | Goodwill | | $15,000 | 0 |
| | Yearly amortization | | | $4,000 |

| Decrease in income | Year 1 | Year 2-10 | Year 11-20 |
|---|---|---|---|
| In-process R&D | $30,000 | | |
| Depreciation expense | 4,000 | $4,000 | |
| Amortization expense | 0 | 0 | 0 |
| Total decrease | $34,000 | $4,000 | 0 |

| | | | | Yearly Amortization |
|---|---|---|---|---|
| (2) | Price with a P/E ratio of 12: (12)($15,000) | | $180,000 | |
| | Book value of equity acquired ($100,000 - $17,000 - $18,000) | | 65,000 | |
| | Excess of cost over book value | | 115,000 | |
| | Allocated to: | | | |
| | In-process R&D | $30,000 | | |
| | Assets to fair value ($105,000 – $65,000) | 40,000 | | $ 4,000 |
| | | | 70,000 | |
| | Goodwill | | $45,000 | 0 |
| | Yearly amortization | | | $4,000 |

| Decrease in income | Year 1 | Years 2-10 | Years 11-20 |
|---|---|---|---|
| In-process R&D | $30,000 | | |
| Depreciation expense | 4,000 | 4,000 | |
| Amortization expense | 0 | 0 | 0 |
| Total decrease | $34,000 | $4,000 | 0 |

**Problem 5-17 (continued)**

**Part B**

(1)

| Decrease in income | Years 1-10 | Years 11-20 |
|---|---|---|
| In-process R&D ($30,000/20) | $1,500 | $1,500 |
| Depreciation expense | 4,000 | |
| Amortization expense | 0 | 0 |
| Total decrease | $5,500 | $1,500 |

(2)

| Decrease in income | Years 1-10 | Years 11-20 |
|---|---|---|
| In-process R&D | $1,500 | $1,500 |
| Depreciation expense | 4,000 | |
| Amortization expense | | |
| Total decrease | $5,500 | $1,500 |

Under all scenarios, the future profitability of the acquisition is decreased. If the in-process R&D is amortized over 20 years, the future profits are decreased even more. Many managers hope that one-time charges to income are ignored by the market. In general, a profitable acquisition is one that generates a return greater than the cost of capital.

**Problem 5-18**

| | | | |
|---|---|---|---|
| **Part A** | Investment in Shah Company ($28 × 25,500) | 714,000 | |
| | Common Stock ($2 × 25,500) | | 51,000 |
| | Other Contributed Capital ($26 × 25,500) | | 663,000 |

| | | | |
|---|---|---|---|
| **Part B** | Dividend Income (.85 × $90,000) | 76,500 | |
| | Dividends Declared – Shah Company | | 76,500 |

| | | |
|---|---|---|
| Common Stock - S | 120,000 | |
| Other Contributed Capital - S | 164,000 | |
| 1/1 Retained Earnings - S | 267,000 | |
| Difference between Implied and Book Value | 289,000 * | |
| Investment in Shah Company | | 714,000 |
| Noncontrolling Interest ($714,000/.85 x .15) | | 126,000 |

*$714,000/.85 – ($120,000 + $164,000 + $267,000)

| | | |
|---|---|---|
| Inventory | 28,000 | |
| Land | 33,500 | |
| Plant Assets | 100,000 | |
| Patents | 105,000 | |
| Deferred Tax Asset ($60,000 x .35) | 21,000 | |
| Goodwill* | 154,775 * | |
| Premium on Bonds Payable | | 60,000 |
| Deferred Tax Liability ($266,500 x .35) | | 93,275 |
| Difference between Implied and Book Value | | 289,000 |

* $289,000 – [($28,000 + $33,500 + $100,000 + $105,000 - $60,000) × (1–.35)]

**Problem 5-18 (continued)**

| | | |
|---|---|---|
| Cost of Goods Sold | 28,000 | |
| Depreciation Expense ($100,000/10) | 10,000 | |
| Amortization Expense – Patents ($105,000/8) | 13,125 | |
| Premium on Bonds Payable ($60,000/10) | 6,000 | |
| Inventory | | 28,000 |
| Plant Assets | | 10,000 |
| Patents | | 13,125 |
| Interest Expense | | 6,000 |

| | | |
|---|---|---|
| Deferred Tax Liability* | 17,894 | |
| Deferred Tax Asset (35% × $6,000) | | 2,100 |
| Income Tax Expense | | 15,794 |

*(35% × ($28,000 + $10,000 + $13,125))

**Part C**

| | | |
|---|---|---|
| Dividend Income (.85 × $100,000) | 85,000 | |
| Dividends Declared - Shah | | 85,000 |

| | | |
|---|---|---|
| Investment in Shah Company | 107,100 | |
| 1/1 Retained Earnings - Pruitt Company<br>(85% × ($393,000* – $267,000)) | | 107,100 |

* $267,000 + $216,000 - $90,000 = $393,000

| | | | |
|---|---|---|---|
| Common Stock - Shah | 120,000 | | |
| Other Contributed Capital - Shah | 164,000 | | |
| 1 / 1 Retained Earnings – Shah ($267,000 + $216,000 - $90,000) | 393,000 | | |
| Difference between Implied and Book Value | 289,000 | | |
| Investment in Shah Company ($714,000 + $107,100) | | 821,100 | |
| Noncontrolling Interest [$126,000 + ($216,000 – $90,000) x .15] | | | 144,900 |

Note: The next two entries may be combined into one or separated into various components. The two approaches presented are only two of various ways to split the effects:

*Alternative One:*

| | | |
|---|---|---|
| 1/1 Retained Earnings - Pruitt Company* | 24,931 | |
| Noncontrolling Interest** | 4,400 | |
| Land | 33,500 | |
| Depreciation Expense | 10,000 | |
| Plant Assets ($100,000 – ($10,000 × 2)) | 80,000 | |
| Amortization Expense - Patents | 13,125 | |
| Patents ($105,000 – ($13,125 × 2)) | 78,750 | |
| Goodwill* | 154,775 | |
| Deferred Tax Asset ($21,000 – $2,100) | 18,900 | |
| Interest Expense | | 6,000 |
| Premium on Bonds Payable ($60,000 – ($6,000 × 2)) | | 48,000 |
| Deferred Tax Liability ($93,275 – $17,894) | | 75,381 |
| Difference between Implied and Book Value | | 289,000 |

**Problem 5-18 (concluded)**

*($28,000 + $10,000 + $13,125 – $6,000 – $15,794) x .85
** ($28,000 + $10,000 + $13,125 – $6,000 – $15,794) x .15

| | | |
|---|---|---|
| Deferred Tax Liability (35% × ($10,000 + $13,125)) | 8,094 | |
| Deferred Tax Asset (35% × $6,000) | | 2,100 |
| Income Tax Expense | | 5,994 |

*Alternative Two:*

| | | |
|---|---|---|
| 1/1 Retained Earnings - Pruitt Company* | 23,800 | |
| Noncontrolling Interest | 4,200 | |
| Land | 33,500 | |
| Plant Assets | 100,000 | |
| Patents | 105,000 | |
| Goodwill | 154,775 | |
| Deferred Tax Asset | 21,000 | |
| Premium on Bonds Payable | | 60,000 |
| Deferred Tax Liability | | 93,275 |
| Difference between Implied and Book Value | | 289,000 |

*Inventory sold in prior year and reflected in cost of goods sold and hence retained earnings

| | | |
|---|---|---|
| Depreciation Expense | 10,000 | |
| 1/1 Retained Earnings - Pruitt | 8,500 | |
| Noncontrolling Interest | 1,500 | |
| Plant Assets (net) | | 20,000 |

| | | |
|---|---|---|
| Amortization Expense - Patent | 13,125 | |
| 1/1 Retained Earnings – Pruitt | 11,156 | |
| Noncontrolling Interest | 1,969 | |
| Patents | | 26,250 |

| | | |
|---|---|---|
| Premium on Bonds Payable | 12,000 | |
| Interest Expense | | 6,000 |
| 1/1 Retained Earnings - Pruitt | | 5,100 |
| Noncontrolling Interest | | 900 |

| | | |
|---|---|---|
| Deferred Tax Liability [35% × ($10,000 + $13,125)] + $17,894 | 25,988 | |
| Deferred Tax Asset (35% × $6,000) + $2,100 | | 4,200 |
| Income Tax Expense (($10,000 + $13,125 – $6,000) × .35) | | 5,994 |
| 1/1 Retained Earnings – Pruitt ($15,794 x .85) | | 13,425 |
| Noncontrolling Interest ($15,794 x .15) | | 2,369 |

# CHAPTER 6

**Note: The letter A indicated for a question, exercise, or problem means that the question, exercise, or problem relates to the chapter appendix.**

## ANSWERS TO QUESTIONS

1. No. If all of the merchandise sold by one affiliate to another has subsequently been sold to outsiders, the only effect that the elimination of intercompany sales of merchandise will have on the consolidated financial statements is to reduce consolidated sales and consolidated cost of sales by an equal amount. Consolidated net income will be unaffected.

2. The effect of eliminating profit on intercompany sales after deducting selling and administrative expenses rather than gross profit is to include selling and administrative expenses associated with the intercompany sale in consolidated inventories. Support for the gross profit approach is based on the proposition that consolidated inventory balances should include manufacturing costs only and that generally accepted accounting standards normally preclude the capitalization of selling and administrative costs.

3. \$10,000 in intercompany profit should be eliminated on the consolidated statements workpaper (\$60,000 – $\frac{\$100{,}000}{2}$ = \$10,000). After this elimination the merchandise will be included in the consolidated statements at its cost to the affiliated group of \$50,000 ($\frac{\$100{,}000}{2}$).

4. Yes. Although 100 percent elimination of intercompany profit has long been required in the preparation of consolidated financial statements, the adjustments to the noncontrolling interest described in this text were discretionary prior to the current standard. The FASB requires that these adjustments be allocated between the noncontrolling and controlling interests.

5. When the subsidiary is the intercompany seller, the unrealized profit is shown in the accounts of the sub (S Company). These accounts provide the starting point for the calculation of the noncontrolling share of current year earnings. Failure to eliminate unrealized profit would result in the overstatement of the noncontrolling share in profits. However, when the parent is the intercompany seller, the unrealized profit is shown in the accounts of the parent (P Company). Since the noncontrolling interest does not share in the earnings of P Company, the noncontrolling interest is not affected by the unrealized profit therein.

6. Noncontrolling interest in consolidated net assets at the beginning of the year is adjusted by debiting or crediting the subsidiary’s beginning retained earnings in the consolidated statements workpaper.

7. The only procedural difference in the workpaper entries relating to the elimination of intercompany profits when the selling affiliate is a less than wholly owned subsidiary is that the noncontrolling interest in the amount of intercompany profit in beginning inventory must be recognized by debiting or crediting the noncontrolling shareholders’ percentage interest in such adjustments to the beginning retained earnings of the subsidiary.

8. Controlling interest in consolidated net income is equal to the parent company’s income from its independent operations that has been realized in transactions with third parties plus its share of reported subsidiary income that has been realized in transactions with third parties and adjusted for its share of the amortization of the difference between implied and book value for the period.

9. It is important to distinguish between upstream and downstream sales because the calculation of noncontrolling interest in the consolidated financial statements differs depending on whether the intercompany sale giving rise to unrealized intercompany profit is upstream or downstream.

10. Profit relating to the intercompany sale of merchandise is recognized in the consolidated financial statements in the period in which the merchandise is sold to outsiders. It is recognized in the consolidated financial statements by reducing cost of goods sold (thus increasing gross profit and net income).

## ANSWERS TO BUSINESS ETHICS CASE

1.

- Independence of the auditor is essential in maintaining effective audits. When auditors are involved in non-audit services, their independence may be impaired (in essence they may be viewed as auditing their own work).

- Many times auditors have to rely on management representation when no supporting evidence is available. Auditors' involvement in non-audit services can help them gain sufficient familiarity with their client's business and operational activities to reduce such dependencies and perhaps to lower audit risk.

2.

- The growing importance of non-audit service fees to the audit firms over time may have increased the potential for the auditors to lose independence, even to the extent of financial fraud involvement.

- The increasing effort to reduce costs (in a competitive marketplace for audit services) imposes limitations on the scope of the audit work involved-- to avoid operating at a loss. Subsidizing any shortfall between audit revenues and audit costs with non-audit fees can help in overcoming such limitations.

3.

- Audit fees would have to increase if auditors are held liable to a greater degree. The increased fees would cover both increased auditor effort to detect errors and to cover the increased litigation settlements/insurance premiums. The additional benefits would be weighed against the costs.

- Timeliness and accuracy present constant tradeoffs in any audit. Time and budget constraints may potentially result in an audit staff not performing sufficient work to meet deadlines. Further, excessive cost-cutting may cause audit work to be inappropriately reduced, which leads to increased reliance by auditors on client presentations to document areas where the data are not easily available. Such reliance can cause audit judgments to be inappropriately influenced. When factors outside their control cause auditors to rely on the representations of others, they should not be solely responsible for resulting errors. Legislation aimed at protecting auditors to some extent also serves to keep audits from becoming prohibitively expensive.

## ANSWERS TO EXERCISES

### Exercise 6-1

| | | | |
|---|---|---|---|
| **Part A** | (1) Sales | 2,700,000 | |
| | Purchases (Cost of Goods Sold) | | 2,700,000 |
| | To eliminate intercompany sales of 2011 | | |
| | (2) 12/31 Inventory-Income Statement (Cost of Goods Sold) | 487,500 | |
| | 12/31 Inventory (Balance Sheet) | | 487,500 |
| | To eliminate unrealized intercompany profit in inventory | | |

### Exercise 6-2

| | |
|---|---|
| Reported Net Income- S Company | $ 525,000 |
| Noncontrolling Interest Percentage | 0.20 |
| Noncontrolling Interest in Net Income | $ 105,000 |

### Exercise 6-3

**2011**

| | | |
|---|---|---|
| Reported net income | | $ 30,000 |
| Unrealized intercompany profit included therein $\frac{\$20,800}{4}$ = $5,200; $5,200 × 0.25 = | | (1,300) |
| Profit included in consolidated income | | 28,700 |
| Percentage interest | 0.10 | |
| Noncontrolling interest in consolidated income | | $ 2,870 |

**2012** (Rounded to nearest dollar)

| | | |
|---|---|---|
| Reported net income | | $ 35,000 |
| Intercompany profit included in beginning inventory, now realized | | 1,300 |
| Unrealized intercompany profit included therein $\frac{\$25,000}{4}$ = $6,250; $6,250 × 0.25 = | | (1,563) |
| Profit included in consolidated income | | 34,737 |
| Percentage interest | 0.10 | |
| Noncontrolling interest in consolidated income | | $ 3,474 |

**Exercise 6-4**

The $600,000 that could not be assigned to specific assets and liabilities is assumed to represent goodwill (the unidentifiable intangible asset), which is not amortized under current GAAP but is reviewed periodically for impairment. In contrast, identifiable intangible assets would be amortized if they have a definite life but not if the life is indefinite in duration. Thus, only if the $600,000 pertained to an identifiable intangible asset with a finite life would amortization be required. We assume that is not the case here.

**2011**

| | |
|---|---|
| Pearce Company's net income from its independent operations | $1,500,000 |
| Amount of income not realized in transactions with third parties ($90,000 – $\frac{\$90,000}{1.25}$) | (18,000) |
| Pearce Company's income from its independent operations that has been realized in transactions with third parties | 1,482,000 |
| Pearce's share of Searl Company adjusted income that has been realized in transactions with third parties ($412,500* × 0.80) | 330,000* |
| Controlling interest in consolidated net income for 2011 | $1,812,000 |

*[$600,000 – ($75,000 + $112,500)] x 0.80 = 330,000,
where $75,000 = $375,000/5
Alternatively,

Controlling Interest in Consolidated Income

| | | | |
|---|---|---|---|
| | | Net income internally generated by Pearce Company | $1,500,000 |
| Unrealized profit on *downstream* sales to Searl Company (ending Inventory) ($90,000 – $90,000/1.25) | 18,000 | Realized profit *(downstream* sales) from begin. inventory | |
| | | Pearce Company's percentage of Searl Company's income realized from third parties, .80($412,500) | 330,000 |
| | | Controlling interest in Consolidated Income | $1,812,000 |

**2012**

| | |
|---|---|
| Pearce Company's net income from its independent operations | $1,800,000 |
| Less profit included therein that has not been realized in transactions with third parties ($105,000 – ($105,000/1.25)) | (21,000) |
| Plus profit realized in 2012 ($90,000 – ($90,000/1.25)) | 18,000 |
| Pearce Company's income from its independent operations that has been realized in transactions with third parties | 1,797,000 |
| Pearce's share of Searl Company adjusted income that has been realized in transactions with third parties ($675,0000 × .80) | 540,000 |
| Controlling interest in consolidated net income for 2012 | $2,337,000 |

*[$750,000 – $75,000] x 0.80 = $540,000,
where $75,000 = $375,000/5

**Exercise 6-4 (continued)**

Alternatively,

Controlling Interest in Consolidated Income

| | | | |
|---|---|---|---|
| | | Net income internally generated by Pearce Company | $1,800,000 |
| Unrealized profit on *downstream* sales to Searl Company (ending Inventory) | 21,000 | Realized profit (*downstream* sales) from begin. inventory | 18,000 |
| | | Pearce Company's percentage of Searl Company's income realized from third parties, .80($675,000) | 540,000 |
| | | Controlling interest in Consolidated Income | $2,337,000 |

**Exercise 6-5**

**2011**

| | | |
|---|---|---|
| Pearce Company's income from its independent operations | | $1,500,000 |
| Plus: Pearce Company's interest in the realized net income of Searl Company: | | |
| Reported Net income | $600,000 | |
| Less Amortization of difference between implied and book value ($75,000 + $112,500) | (187,500) | |
| Less unrealized profit included therein ($90,000 - $\frac{\$90,000}{1.25}$) | (18,000) | |
| Income realized in transaction with third parties | $394,500 | |
| Pearce Company's interest therein (0.8 × $394,500) | | $315,600 |
| Controlling interest in consolidated net income | | $1,815,600 |

**2012**

| | | |
|---|---|---|
| Pearce Company's income from its independent operations | | $1,800,000 |
| Plus: Pearce Company's interest in the realized net income of Searl Company: | | |
| Reported Net income | $750,000 | |
| Less amortization of difference between implied and book value | (75,000) | |
| Less profit included therein that has not been realized in transactions with third parties ($105,000 - $\frac{\$105,000}{1.25}$) | (21,000) | |
| Plus profit realized in 2012 ($90,000 - $\frac{\$90,000}{1.25}$) | 18,000 | |
| Income realized in transaction with third parties | $672,000 | |
| Pearce Company's interest therein (0.8 × $672,000) | | 537,600 |
| Controlling interest in consolidated net income | | $2,337,600 |

## Exercise 6-6

### Part A

| | | |
|---|---|---|
| Payne Company's net income from its independent operations | | $280,000 |
| Sierra Company's net income from its independent operations | $172,000 | |
| Plus: profit realized from beginning inventory | 3,800 | |
| Less: unrealized profit in ending inventory | (4,800) | |
| Sierra Company's net income realized in transactions with third parties | $171,000 | |
| Payne Company's share thereof (1.00 × $171,000) | | 171,000 |
| Santa Fe Company's net income from its independent operations | $120,000 | |
| Plus: profit realized from beginning inventory | 4,600 | |
| Less: unrealized profit in ending inventory | (2,300) | |
| Santa Fe Company's net income realized in transactions with third parties | $122,300 | |
| Payne Company's share thereof (0.80 × $122,300) | | 97,840 |
| Controlling interest in consolidated net income | | $548,840 |

## Exercise 6-7

### Part A

**2011**

| | | |
|---|---|---|
| (1) Sales | 450,000 | |
| Purchases (Cost of Goods Sold) | | 450,000 |
| To eliminate intercompany sales | | |

| | | |
|---|---|---|
| (2) Ending Inventory – Income Statement (CoGS) | 25,000 | |
| 12/31 Inventory (Balance Sheet) | | 25,000 |

To eliminate intercompany profit in ending inventory ($150,000 - $\frac{\$150,000}{1.20}$)

**2012**

| | | |
|---|---|---|
| (1) Sales | 486,000 | |
| Purchases (Cost of Goods Sold) | | 486,000 |
| To eliminate intercompany sales | | |

| | | |
|---|---|---|
| (2) Beginning Retained Earnings-Perkins | 25,000 | |
| Beginning Inventory – Income Statement (CoGS) | | 25,000 |

To recognize intercompany profit included in beginning inventory and reduce beginning consolidated retained earnings for unrealized intercompany profit at the beginning of the year

| | | |
|---|---|---|
| (3) Ending Inventory – Income Statement (CoGS) | 27,000 | |
| 12/31 Inventory (Balance Sheet) | | 27,000 |

To eliminate intercompany profit in ending inventory ($162,000 - $\frac{\$162,000}{1.20}$)

**Exercise 6-8**

**2011**

| | | | |
|---|---|---|---|
| (1) | Sales | 450,000 | |
| | Purchases (Cost of Goods Sold) | | 450,000 |
| | | | |
| (2) | Ending Inventory – Income Statement (CoGS) | 25,000 | |
| | 12/31 Inventory (Balance Sheet) | | 25,000 |
| | To eliminate intercompany profit in ending inventory ($150,000 - $150,000/1.2) | | |

**2012**

| | | | |
|---|---|---|---|
| (1) | Sales | 486,000 | |
| | Purchases (Cost of Goods Sold) | | 486,000 |
| | To eliminate intercompany sales | | |
| | | | |
| (2) | 1/1 Retained Earnings-Perkins Company (85%)($25,000) | 21,250 | |
| | 1/1 Noncontrolling Interest (15%)($25,000) | 3,750 | |
| | Beginning Inventory – Income Statement (CoGS) | | 25,000 |
| | To recognize intercompany profit in beginning inventory realized during the year and reduce controlling and noncontrolling interests for their share of unrealized intercompany profit at beginning of year. | | |
| | | | |
| (3) | Ending Inventory – Income Statement (CoGS) | 27,000 | |
| | 12/31 Inventory (Balance Sheet) | | 27,000 |
| | To eliminate intercompany profit in ending inventory. ($162,000 - $162,000/1.2) | | |

**Exercise 6-9**

PEAT COMPANY AND SUBSIDIARY
Consolidated Income Statement
For the Year Ended December 31, 2012

| | | |
|---|---|---|
| Sales ($14,000,000 - $1,400,000) | | $12,600,000 |
| Cost of Goods Sold (a) | $7,900,000 | |
| Operating Expense | 1,800,000 | 9,700,000 |
| Consolidated Income | | 2,900,000 |
| Less Noncontrolling Interest in Consolidated Income (b) | | 210,000 |
| Controlling Interest in Consolidated Net Income | | $2,690,000 |

| | |
|---|---|
| (a) Reported Cost of Goods Sold | $9,200,000 |
| Less intercompany sales in 2012 | (1,400,000) |
| Plus unrealized profit in ending inventory ($\frac{2}{5}$ × ($1,400,000 - $900,000)) | 200,000 |
| Less realized profit in beginning inventory ($\frac{1}{3}$ × ($1,800,000 - $1,500,000)) | (100,000) |
| Corrected cost of goods sold | $7,900,000 |

| | |
|---|---|
| (b) Reported net income of subsidiary $\left(\frac{\$200,000}{0.1}\right)$ | $2,000,000 |
| Plus unrealized profit on subsidiary sales in 2011 that is considered realized in 2012 ($\frac{1}{3}$ × ($1,800,000 - $1,500,000)) | 100,000 |
| Less unrealized profit on subsidiary sales in 2012 (there were no upstream sales in 2012) | 0 |
| Income realized in transactions with third parties | 2,100,000 |
| | **× 0.10** |
| Noncontrolling interest in consolidated income | $210,000 |

## ANSWERS TO PROBLEMS

### Problem 6-1

**Part A**

| | | | | |
|---|---|---|---|---|
| **2011** | (1) | Sales | 436,000 | |
| | | Purchases (Cost of Goods Sold) | | 436,000 |
| | | To eliminate intercompany sales | | |
| | (2) | 12/31 Inventory (Income Statement) | 18,167 | |
| | | Inventory (Balance Sheet) | | 18,167 |
| | | To eliminate unrealized intercompany profit in ending inventory ($\$109{,}000 - \dfrac{\$109{,}000}{1.2}$) | | |
| **2012** | (1) | Sales | 532,000 | |
| | | Purchases (Cost of Goods Sold) | | 532,000 |
| | | To eliminate intercompany sales | | |
| | (2) | Beginning Retained Earnings-Peel Co. (0.9 × $18,167) | 16,350 | |
| | | Noncontrolling Interest (0.10 × $18,167) | 1,817 | |
| | | 1/1 Inventory (Income Statement) | | 18,167 |
| | | To recognize gross profit in beginning inventory realized in 2012 | | |
| | (3) | 12/31 Inventory (Income Statement) | 22,167 | |
| | | Inventory (Balance Sheet) | | 22,167 |
| | | To eliminate unrealized intercompany profit in ending inventory ($133,000 – ($133,000/1.2)) | | |

**Part B**

| | |
|---|---|
| Reported subsidiary income | $130,000 |
| Add: Realized profit in beginning inventory | 18,167 |
| Less: Unrealized profit in ending inventory | (22,167) |
| Subsidiary income included in consolidated income | 126,000 |
| Noncontrollong interest ownership percentage | × 0.10 |
| Noncontrolling interest in consolidated income | $12,600 |

**Part C**

| | | |
|---|---|---|
| Peel Company's net income from independent operations | | $300,000 |
| Reported income of Seacore Company | $130,000 | |
| Less: Unrealized profit on intercompany sales of 2012 | (22,167) | |
| Add: Profit on 2011 sales to Peel realized in transactions with third parties | 18,167 | |
| Subsidiary income realized in transactions with third parties | $126,000 | |
| Peel 's share of subsidiary income (0.90 × $126,000) | | 113,400 |
| Controlling interest in consolidated net income | | $413,400 |

**Problem 6-2**

**Part A** **2011**

| | | | |
|---|---|---|---|
| (1) | Sales | 442,500 | |
| | Purchases (Cost of Goods Sold) | | 442,500 |
| | To eliminate intercompany sales | | |
| (2) | 12/31 Inventory (Income Statement) | 44,250 | |
| | Inventory (Balance Sheet) | | 44,250 |
| | To eliminate unrealized intercompany profit in ending inventory ($221,250 × 0.2) | | |

**2012**

| | | | |
|---|---|---|---|
| (1) | Sales | 386,250 | |
| | Purchases (Cost of Goods Sold) | | 386,250 |
| | To eliminate intercompany sales | | |
| (2) | 12/31 Inventory (Income Statement) | 15,450 | |
| | 12/31 Inventory (Balance Sheet) | | 15,450 |
| | To eliminate intercompany profit in ending inventory ($77,250 × 0.20) | | |
| (3) | Beginning Retained Earnings-Plaster Co. (0.85 × $44,250) | 37,612 | |
| | Noncontrolling Interest (0.15 × $44,250) | 6,638 | |
| | 1/1 Inventory (Income Statement) | | 44,250 |
| | To recognize realization of intercompany profit in beginning inventory | | |

**Part B**

| | |
|---|---|
| Reported subsidiary income | $335,400 |
| Add: Intercompany profit in beginning inventory | 44,250 |
| Deduct Unrealized intercompany profit in ending inventory | (15,450) |
| Subsidiary income realized in transactions with third parties and included in consolidated income | 364,200 |
| Noncontrolling interest percentage | × 0.15 |
| Noncontrolling interest in consolidated income | $54,630 |

**Part C**

| | | |
|---|---|---|
| Plaster's income from independent operations | | $780,000 |
| Reported income of Shell Company | $335,400 | |
| Add: Intercompany profit in beginning inventory | 44,250 | |
| Deduct: Unrealized profit in ending inventory | (15,450) | |
| Subsidiary Income realized in transactions with third parties | $364,200 | |
| Plaster's share of subsidiary income ($364,200 × 0.85) | | 309,570 |
| Controlling interest in consolidated net income | | $1,089,570 |

**Problem 6-3**

**Part A** **2011**

| | | |
|---|---|---|
| (1) Sales | 265,000 | |
| Purchases (Cost of Goods Sold) | | 265,000 |
| To eliminate intercompany sales | | |
| (2) 12/31 Inventory (Income Statement) | 25,000 | |
| 12/31 Inventory (Balance Sheet) | | 25,000 |
| To eliminate unrealized profit in ending inventory ($125,000 – $\frac{\$125{,}000}{1.25}$ ) | | |

**2012**

| | | |
|---|---|---|
| (1) Sales | 475,000 | |
| Purchases (Cost of Goods Sold) | | 475,000 |
| To eliminate intercompany sales | | |
| (2) 12/31 Inventory (Income Statement) | 34,000 | |
| 12/31 Inventory (Balance Sheet) | | 34,000 |
| To eliminate intercompany profit in ending inventory ($170,000 – ($170,000/1.25)) | | |
| (3) Beginning Retained Earnings-Peer Co. | 25,000 | |
| 1/1 Inventory (Income Statement) | | 25,000 |
| To recognize intercompany profit in beginning inventory realized during the year | | |

**Part B**

| | 2011 | 2012 |
|---|---|---|
| Reported subsidiary income | $225,000 | $275,000 |
| Noncontrolling interest ownership percentage | 20% | 20% |
| Noncontrolling interest in consolidated income | $45,000 | $55,000 |

**Part C**

| | 2012 |
|---|---|
| Peer Company's income from independent operations | $480,000 |
| Less: Unrealized profit in ending inventory | (34,000) |
| Add: Realized profit in beginning inventory | 25,000 |
| Peer Company's income realized in transactions with third parties | 471,000 |
| Peer Company's share of subsidiary income ($275,000 × 0.8) | 220,000 |
| Controlling interest in consolidated net income | $691,000 |

**Problem 6-4**

**Part A**

| | | | |
|---|---|---|---|
| (1) | Sales | 225,000 | |
| | Purchases (Cost of Goods Sold) | | 225,000 |
| | To eliminate intercompany sales for 2012 | | |
| (2) | Ending Inventory – Income Statement (CoGS) | 21,000 | |
| | 12/31 Inventory (Balance Sheet) | | 21,000 |
| | To eliminate unrealized profit in ending inventory | | |
| (3) | Beginning Retained Earnings-Pace Company<br>($7,000 + ($8,000 × 0.85) + $8,000) | 21,800 | |
| | Noncontrolling Interest ($8,000 × 0.15) | 1,200 | |
| | Beginning Inventory – Income Statement (CoGS) | | 23,000 |
| | To recognize gross profit in beginning inventory realized in current year | | |

| | | |
|---|---|---|
| **Part B** | Consolidated income (a) | $477,000 |
| | Noncontrolling interest in consolidated income (b) | 21,450 |
| | Controlling interest in consolidated net income (c) | $455,550 |

(a) ($475,000* + $23,000 – $21,000)

(b) (0.15 × ($150,000 + $8,000 – $15,000)

(c) ($200,000 + ($7,000 – $2,000) + (0.85 × ($150,000 + $8,000 – $15,000)) + ($125,000 + $8,000 – $4,000))

* ($200,000 + $150,000 + $125,000)

**Problem 6-5**
**Part A**

PRUITT CORPORATION AND SUBSIDIARY

For the Year Ended December 31, 2013

| | Pruitt | Sedbrook | Eliminations | | Noncontrolling | Consolidated |
|---|---|---|---|---|---|---|
| | Corporation | Company | Debit | Credit | Interest | Balances |
| **Income Statement** | | | | | | |
| Sales | $1,210,000 | $636,000 | (2) $250,000 | $0 | $0 | $1,596,000 |
| Dividend Income | 31,500 | | (5) 31,500 | | | |
| Total Revenue | 1,241,500 | 636,000 | | | | 1,596,000 |
| Cost of Goods Sold: | | | | | | |
| Inventory, 1/1 | 165,000 | 132,000 | | (4) 25,000 | | 272,000 |
| Purchases | 935,000 | 420,000 | | (2) 250,000 | | 1,105,000 |
| Cost of Available for Sale | 1,100,000 | 552,000 | | | | 1,377,000 |
| Inventory, 12/31 | 220,000 | 144,000 | (3) 10,000 | | | 354,000 |
| Cost of Goods Sold | 880,000 | 408,000 | | | | 1,023,000 |
| Other Expense | 198,000 | 165,000 | | | | 363,000 |
| Total Cost and Expense | 1,078,000 | 573,000 | | | | 1,386,000 |
| Net/Consolidated Income | 163,500 | 63,000 | | | | 210,000 |
| Noncontrolling Interest In Consolidated Income | | | | | 6,300 | (6,300) |
| Net Income to Retained Earnings | $163,500 | $63,000 | $291,500 | $275,000 | $6,300 | $203,700 |
| **Retained Earnings Statement** | | | | | | |
| 1/1 Retained Earnings: | | | | | | |
| Pruitt Corporation | $598,400 | | (4) 25,000 | (1) 44,100 | | $617,500 |
| Sedbrook Company | | 144,000 | (6) 144,000 | | | |
| Net Income from above | 163,500 | 63,000 | 291,500 | 275,000 | 6,300 | 203,700 |
| Dividends Declared | | | | | | |
| Pruitt Corporation | (110,000) | | | | | (110,000) |
| Sedbrook Company | | (35,000) | | (5) 31,500 | (3,500) | |
| 12/31/ Retained Earnings to Balance Sheet | $651,900 | $172,000 | $460,500 | $350,600 | $2,800 | $711,200 |

**Problem 6-5 (continued)**

| | Pruitt | Sedbrook | Eliminations | | Noncontrolling | Consolidated |
|---|---|---|---|---|---|---|
| **Balance Sheet** | Corporation | Company | Debit | Credit | Interest | Balances |
| Cash | 90,800 | 96,000 | | | | 186,800 |
| Accounts Receivable | 243,300 | 135,000 | | | | 378,300 |
| Inventory | 220,000 | 144,000 | | (3) 10,000 | | 354,000 |
| Investment in Sedbrook Comp. | 625,500 | | (1) 44,100 | (6) 669,600 | | |
| Other Assets | 550,000 | 480,000 | | | | 1,030,000 |
| Total | $1,729,600 | $855,000 | | | | $1,949,100 |
| | | | | | | |
| Accounts Payable | 77,000 | 36,000 | | | | 113,000 |
| Other Liabilities | 120,700 | 47,000 | | | | 167,700 |
| Common stock: | | | | | | |
| Pruitt Corporation | 880,000 | | | | | 880,000 |
| Sedbrook Company | | 600,000 | (6) 600,000 | | | |
| Retained Earnings from above | 651,900 | 172,000 | 460,500 | 350,600 | 2,800 | 711,200 |
| 1/1 Noncontrolling Interest in Net Assets | | | | (6) 74,400 | 74,400 | |
| 12/31 Noncontrolling Interest | | | | | 77,200 | 77,200 |
| Total | $1,729,600 | $855,000 | 1,104,600 | 1,104,600 | | $1,949,100 |

**Problem 6-5 (continued)**

**Explanations of workpaper entries**

| | | | |
|---|---|---|---|
| (1) | Investment in Sedbrook Company (0.90 × ($144,000 – $95,000)) | 44,100 | |
| | Beginning Retained Earnings - Pruitt Co. | | 44,100 |
| | To establish reciprocity/convert to equity as of 1/1/13 | | |
| (2) | Sales | 250,000 | |
| | Purchases (Cost of Goods Sold) | | 250,000 |
| | To eliminate intercompany sales | | |
| (3) | Ending Inventory - Income Statement (CoGS) | 10,000 | |
| | Ending Inventory (Balance Sheet) | | 10,000 |
| | To eliminate unrealized intercompany profit in ending inventory ($60,000 – ($60,000/1.2) | | |
| (4) | Beginning Retained Earnings - Pruitt Co. | 25,000 | |
| | Beginning Inventory (Income Statement) | | 25,000 |
| | To recognize intercompany profit in beginning inventory realized during the year | | |
| (5) | Dividend Income ($35,000 × .90) | 31,500 | |
| | Dividends Declared | | 31,500 |
| | To eliminate intercompany dividends | | |
| (6) | Beginning Retained Earnings - Sedbrook Co. | 144,000 | |
| | Common Stock - Sedbrook Co. | 600,000 | |
| | Investment in Sedbrook Co.($625,500 + $44,100) | | 669,600 |
| | Noncontrolling Interest ($744,000 x .10) | | 74,400 |
| | To eliminate investment account and create noncontrolling interest account | | |

**Problem 6-5 (continued)**

**Part B**

| | | |
|---|---|---|
| Pruitt Corporation's Retained Earnings on 12/31/13 | | $651,900 |
| Amount of Pruitt Corporation Retained Earnings that have not been realized in transactions with third parties | | 10,000 |
| Pruitt Corporation's Retained Earnings that have been realized in transactions with third parties | | 641,900 |
| Increase in retained earnings of Sedbrook Company that have been realized in transactions with third parties from 1/1/09 to 12/31/13 ($172,000 – $95,000) | $ 77,000 | |
| Pruitt Corporation's share | x .90 | 69,300 |
| Consolidated Retained Earnings as of 12/31/13 | | $711,200 |

Consolidated Retained Earnings

| | | | |
|---|---|---|---|
| | | Pruitt Corporation's Retained Earnings on 12/31/13 | $651,900 |
| | | Pruitt Corporation's share of the increase in Sedbrook Company's Retained Earnings since acquisition ($172,000 - $95,000).90 | 69,300 |
| Unrealized profit on *downstream* sales to Sedbrook Company (in Sedbrook's ending Inventory | 10,000 | | |
| | | Consolidated Retained Earnings | $711,200 |

**Problem 6-6**

## PRUITT CORPORATION AND SUBSIDIARY
Consolidated Statements Workpaper
For the Year Ended December 31, 2013

| | Pruitt | Sedbrook | Eliminations | | Consolidated | Consolidated | | |
|---|---|---|---|---|---|---|---|---|
| | | | | | Income | Retained | Noncontrolling | Consolidated |
| | Corporation | Company | Dr. | Cr. | Statement | Earnings | Interest | Balances |
| **Debits** | | | | | | | | |
| Cash | $ 90,800 | $ 96,000 | | | | | | $186,800 |
| Accounts Receivable (net) | 243,300 | 135,000 | | | | | | 378,300 |
| Inventory 1/1 | 165,000 | 132,000 | | (4) 25,000 | 272,000 | | | |
| Investment in Sedbrook Company | 625,500 | | (1) 44,100 | (6) 669,600 | | | | |
| Other Assets | 550,000 | 480,000 | | | | | | 1,030,000 |
| Dividends Declared | | | | | | | | |
| Pruitt Corporation | 110,000 | | | | | (110,000) | | |
| Sedbrook Company | | 35,000 | | (5) 31,500 | | | (3,500) | |
| Purchases | 935,000 | 420,000 | | (2) 250,000 | 1,105,000 | | | |
| Other Expenses | 198,000 | 165,000 | | | 363,000 | | | |
| Total | 2,917,600 | 1,463,000 | | | | | | |
| Inventory 12/31 | $ 220,000 | $ 144,000 | | (3) 10,000 | | | | 354,000 |
| Total Assets | | | | | | | | $1,949,100 |
| **Credits** | | | | | | | | |
| Accounts Payable | 77,000 | 36,000 | | | | | | 113,000 |
| Other Liabilities | 120,700 | 47,000 | | | | | | 167,700 |
| Common Stock: | | | | | | | | |
| Pruitt Corporation | 880,000 | | | | | | | 880,000 |
| Sedbrook Company | | 600,000 | (6)600,000 | | | | | |
| Retained Earnings | | | | | | | | |
| Pruitt Corporation | 598,400 | | (4) 25,000 | (1) 44,100 | | 617,500 | | |
| Sedbrook Company | | 144,000 | (6)144,000 | | | | | |
| Sales | 1,210,000 | 636,000 | (2)250,000 | | (1,596,000) | | | |
| Dividend Income | 31,500 | | (5) 31,500 | | | | | |
| Totals | $2,917,600 | $1,463,000 | | | | | | |
| Inventory 12/31 | $ 220,000 | $ 144,000 | (3) 10,000 | | (354,000) | | | |
| Net/Consolidated Income | | | | | 210,000 | | | |
| Noncontrolling Interest in Consolidated Net Income | | | | | (6,300) | | 6,300 | |
| Controlling Interest in Consolidated Net Income | | | | | $203,700 | 203,700 | | |
| Consolidated Retained Earnings | | | | | | $711,200 | | 711,200 |
| 1/1 Noncontrolling Interest in Net Assets | | | | (6) 74,400 | | | 74,400 | |
| 12/31 Noncontrolling Interest in Net Assets | | | | | | | $77,200 | 77,200 |
| | | | $1,104,600 | $1,104,600 | | | | |
| Total Liabilities and Equity | | | | | | | | $1,949,100 |

*Noncontrolling Interest in Consolidated Income = 0.10 × $63,000 = $6,300
See solution to Problem 6-5 for explanation of Workpaper entries

**Problem 6-7**
**Part A**

PAQUE CORPORATION AND SUBSIDIARY
Consolidated Statement Workpaper
For the Year Ended December 31, 2013

| | Paque Corporation | Segal Company | Eliminations Dr. | Eliminations Cr. | Noncontrolling Interest | Consolidated Balances |
|---|---|---|---|---|---|---|
| **Income Statement** | | | | | | |
| Sales | 1,650,000 | 795,000 | (2) 300,000 | | | 2,145,000 |
| Dividend Income | 54,000 | | (5) 54,000 | | | |
| Total revenue | 1,704,000 | 795,000 | | | | 2,145,000 |
| Cost of Goods Aold: | | | | | | |
| Beginning Inventory | 225,000 | 165,000 | | (4) 45,000 | | 345,000 |
| Purchases | 1,275,000 | 525,000 | | (2) 300,000 | | 1,500,000 |
| Cost of Goods Available | 1,500,000 | 690,000 | | | | 1,845,000 |
| Less Ending Inventory | 210,000 | 172,500 | (3) 15,000 | | | 367,500 |
| Cost of Goods Sold | 1,290,000 | 517,500 | | | | 1,477,500 |
| Other Expenses | 310,500 | 206,250 | | | | 516,750 |
| Total Cost & Expense | 1,600,500 | 723,750 | | | | 1,994,250 |
| Net/Consolidated Income | 103,500 | 71,250 | | | | 150,750 |
| Noncontrolling Interest in Income | | | | | 10,125* | (10,125) |
| Net Income to Retained Earnings | 103,500 | 71,250 | 369,000 | 345,000 | 10,125 | 140,625 |
| **Statement of Retained Earnings** | | | | | | |
| 1/1 Retained Earnings | | | | | | |
| Paque Corporation | 811,500 | | (4) 40,500 | (1) 27,000 | | 798,000 |
| Segal Company | | 180,000 | (6) 180,000 | | | |
| Net Income from above | 103,500 | 71,250 | 369,000 | 345,000 | 10,125 | 140,625 |
| Dividends Declared | | | | | | |
| Paque Corporation | (150,000) | | | | | (150,000) |
| Segal Company | | (60,000) | | (5) 54,000 | (6,000) | |
| 12/31 Retained Earnings to Balance Sheet | 765,000 | 191,250 | 589,500 | 426,000 | 4,125 | 788,625 |

*Noncontrolling Interest in Consolidated Income = 0.10 × ($71,250 + $45,000 – $15,000) = $10,125

| **Problem 6-7(continued)** | Paque | Segal | Eliminations | | Noncontrolling | Consolidated |
|---|---|---|---|---|---|---|
| | Corporation | Company | Dr. | Cr. | Interest | Balances |
| **Balance Sheet** | | | | | | |
| Cash | 93,000 | 75,000 | | | | 168,000 |
| Accounts Receivable | 319,500 | 168,750 | | | | 488,250 |
| Inventory | 210,000 | 172,500 | | (3) 15,000 | | 367,500 |
| Investment in Segal Company | 810,000 | | (1) 27,000 | (6) 837,000 | | |
| Other Assets | 750,000 | 630,000 | | | | 1,380,000 |
| Total assets | 2,182,500 | 1,046,250 | | | | 2,403,750 |
| | | | | | | |
| Accounts Payable | 105,000 | 45,000 | | | | 150,000 |
| Other Current Liabilities | 112,500 | 60,000 | | | | 172,500 |
| Capital Stock: | | | | | | |
| Paque Corporation | 1,200,000 | | | | | 1,200,000 |
| Segal Company | | 750,000 | (6) 750,000 | | | |
| Retained Earnings from above | 765,000 | 191,250 | 589,500 | 426,000 | 4,125 | 788,625 |
| 1/1 Noncontrolling Interest | | | (4) 4,500 | (6) 93,000 | 88,500 | |
| 12/31 Noncontrolling Interest | | | | | 92,625 | 92,625 |
| Total liabilities & equity | 2,182,500 | 1,046,250 | 1,371,000 | 1,371,000 | | 2,403,750 |

Explanations of workpaper entries are on next page

**Problem 6-7 (continued)**

**Explanation of workpaper entries**

| | | | |
|---|---|---|---|
| (1) | Investment in Segal (0.90 × ($180,000 – $150,000)) | 27,000 | |
| | Beginning Retained Earnings-Paque Co. | | 27,000 |
| | To establish reciprocity as of 1/1/2013 | | |
| (2) | Sales | 300,000 | |
| | Purchases (Cost of Goods Sold) | | 300,000 |
| | To eliminate intercompany sales | | |
| (3) | Ending Inventory - Income Statement (CoGS) | 15,000 | |
| | Ending Inventory (Balance Sheet) | | 15,000 |
| | To eliminate unrealized intercompany profit in ending inventory ($75,000 × 0.20) | | |
| (4) | Beginning Retained Earnings - Paque Co. ($45,000 × 0.90) | 40,500 | |
| | Noncontrolling Interest ($45,000 × 0.10) | 4,500 | |
| | Beginning Inventory | | 45,000 |
| | To recognize intercompany profit realized during the year and to reduce controlling and noncontrolling interests for their share of unrealized profit at beginning of year | | |
| (5) | Dividend Income ($60,000 × 0.90) | 54,000 | |
| | Dividends Declared | | 54,000 |
| | To eliminate intercompany dividends | | |
| (6) | Beginning Retained Earnings- Segal Co. | 180,000 | |
| | Common Stock - Segal Company | 750,000 | |
| | Investment in Segal Company ($810,000 + $27,000) | | 837,000 |
| | Noncontrolling Interest ($750,000 + $180,000) x .10 | | 93,000 |
| | To eliminate investment account and create noncontrolling interest account | | |

**Problem 6-7 (continued)**

**Part B**

PAQUE CORPORATION AND SUBSIDIARY
Calculation of Controlling Interest in Net Income
For Year Ended December 31,2013

| | | |
|---|---|---|
| Paque's net income from its independent operations<br>($103,500 reported income less $54,000 in subsidiary dividend income) | | $49,500 |
| Less: unrealized profit on 2013 sales to Segal | | - 0 - |
| Plus: profit on prior year's sales to Segal realized in transactions with third parties in 2013 | | - 0 - |
| Paque's income from its independent operations that has been realized in transactions with third parties | | $49,500 |
| Reported income of Segal | $71,250 | |
| Less amortization of difference between implied and book value | 0 | |
| Less: unrealized profit on 2013 sales to Paque | (15,000) | |
| Plus: profit on prior year's sales to Paque realized in transactions with third parties in 2013 | 45,000 | |
| Income of Segal that has been realized in transactions with third parties | $ 101,250 | |
| Paque's share of Segal's income | 90% | 91,125 |
| Controlling interest in Consolidated net income | | $140,625 |

Noncontrolling Interest in Consolidated Income

| | | | |
|---|---|---|---|
| Unrealized profit on *upstream* sales in ending inventory | 15,000 | Net income reported by Segal Company | $ 71,250 |
| Amortization of the difference between implied and book value | 0 | Realized profit (*upstream* sales) from beginning inventory | 45,000 |
| | | Subsidiary Income included in Consolidated Income | $101,250 |

Controlling Interest in Consolidated Income

| | | | |
|---|---|---|---|
| | | Net income internally generated by Paque Corporation | $ 49,500 |
| | | Paque Corporation's percentage of Segal Company's income realized from third parties, .90($101,250) | 91,125 |
| | | Controlling Interest in Consolidated Income | $140,625 |

**Problem 6-8**

| | | | | |
|---|---|---|---|---|
| **Part A** | (1) | Sales | 1,140,000 | |
| | | Purchases (Cost of Goods Sold) ($950,000 × 1.2) | | 1,140,000 |
| | | To eliminate intercompany sales for 2011 | | |
| | (2) | 12/31 Inventory (Income Statement) | 96,000 | |
| | | 12/31 Inventory (Balance Sheet) | | 96,000 |
| | | To eliminate unrealized profit in ending Inventory ($576,000 – ($576,000/1.2)) | | |
| | (3) | Common Stock - Sterling Company | 800,000 | |
| | | Beginning Retained Earnings - Sterling Company | 425,000 | |
| | | Difference between Implied and Book Value ($1,400,000/.90 – $1,225,000) | 330,556 | |
| | | Investment in Sterling Company | | 1,400,000 |
| | | Noncontrolling Interest [($1,400,000/.90) x .10] | | 155,556 |
| | (4) | Depreciation Expense ($200,000/10) | 20,000 | |
| | | Plant and Equipment (net) ($200,000 – $20,000) | 180,000 | |
| | | 1/1 Inventory (Income Statement) | 41,667 | |
| | | Goodwill | 88,889 | |
| | | Difference between Implied and Book Value | | 330,556 |

Alternative to entry (4)

| | | | |
|---|---|---|---|
| (4a) | | | |
| | Plant and Equipment (net) | 200,000 | |
| | 1/1 Inventory (Income Statement) | 41,667 | |
| | Goodwill | 88,889 | |
| | Difference between Implied and Book Value | | 330,556 |
| (4b) | | | |
| | Depreciation Expense ($200,000/10) | 20,000 | |
| | Plant and Equipment (net) | | 20,000 |

**Problem 6-8 (continued)**

**Part B**

Patten Company and Subsidiary Sterling Company
Analytical Calculation of Controlling Interest in Consolidated Net Income
For the Year Ended December 31, 2011

| | | |
|---|---|---|
| Patten Company's net income from its independent operations ($2,000,000 reported income less $0 in subsidiary dividend income) | | $ 2,000,000 |
| Less: Unrealized profit on 2011 sales to Sterling Company | | - 0 - |
| Plus: Profit on prior year's sales to Sterling Company realized in transactions with third parties in 2011 | | - 0 - |
| Patten Company's income from its independent operations that has been realized in transactions with third parties | | 2,000,000 |
| Reported income of Sterling Company | 410,000 | |
| Less: Amortization of the difference between implied and book value ($20,000 + $41,667) | (61,667) | |
| Less: Unrealized profit on 2011 sales to Patten Company | (96,000) | |
| Plus: Profit on prior year's sales to Patten Company realized in transactions with third parties in 2011 | - 0 - | |
| Income of Sterling Company that has been realized in transactions with third parties | $252,333 | |
| Patten Company's share | 90% | 227,100 |
| Controlling interest in consolidated net income | | $ 2,227,100 |

**Part C** Noncontrolling Interest In Consolidated Income

| | |
|---|---|
| Reported income of Sterling Company | $410,000 |
| Less: Amortization of the difference between implied and book value ($20,000 + $41,667) | (61,667) |
| Less: Unrealized profit on 2011 sales to Patten Company | (96,000) |
| Income of Sterling Company included in consolidated income | $252,333 |
| Noncontrolling interest share thereof (.1 × $252,333) | $25,233 |

**Problem 6-9**

PERRY COMPANY AND SUBSIDIARY
Consolidated Statements Workpaper
For the Year Ended December 31, 2010

**Part A**

| | Perry | Selby | Eliminations | | Noncontrolling | Consolidated |
|---|---|---|---|---|---|---|
| | Company | Company | Debit | Credit | Interest | Balances |
| **Income Statement** | | | | | | |
| Sales | $1,400,000 | $800,000 | (2) $310,000 | | | $1,890,000 |
| Dividend Income | 20,000 | | (5) 20,000 | | | |
| Total Revenue | 1,420,000 | 800,000 | | | | 1,890,000 |
| Cost of Goods Sold: | | | | | | |
| Inventory, 1/1 | 230,000 | 145,000 | (7) 25,000 | (4) 12,000 | | 388,000 |
| Purchases | 900,000 | 380,000 | | (2) 310,000 | | 970,000 |
| Cost of Available for Sale | 1,130,000 | 525,000 | | | | 1,358,000 |
| Inventory, 12/31 | 450,000 | 200,000 | (3) 16,400 | | | 633,600 |
| Cost of Goods Sold | 680,000 | 325,000 | | | | 724,400 |
| Other Expense | 250,000 | 195,000 | (8) 15,000 | | | 460,000 |
| Total Cost and Expense | 930,000 | 520,000 | | | | 1,184,400 |
| Net/Consolidated Income | 490,000 | 280,000 | | | | 705,600 |
| Noncontrolling Interest In Consolidated Income | | | | | 50,400 | * (50,400) |
| Net Income to Retained Earnings | $490,000 | $280,000 | $386,400 | $322,000 | $50,400 | $655,200 |
| **Retained Earnings Statement** | | | | | | |
| 1/1 Retained Earnings: | | | | | | |
| Perry Company | $1,500,000 | | (4) $9,600 | (1) $84,000 | | $1,542,400 |
| | | | (7) 20,000 | | | |
| | | | (8) 12,000 | | | |
| Selby Company | | 480,000 | (6) 480,000 | | | |
| Net Income from above | 490,000 | 280,000 | 386,400 | 322,000 | 50,400 | 655,200 |
| Dividends Declared | | | | | | |
| Perry Company | (50,000) | | | | | (50,000) |
| Selby Company | | (25,000) | | (5) 20,000 | (5,000) | |
| 12/31/ Retained Earnings to Balance Sheet | $1,940,000 | $735,000 | $908,000 | $426,000 | $45,400 | $2,147,600 |

* Noncontrolling interest in income = .2 × ($280,000 + $12,000 – $25,000 – $15,000) = $50,400

**Problem 6-9 (continued)**

| | Perry | Selby | Eliminations | | Noncontrolling | Consolidated |
|---|---|---|---|---|---|---|
| | Company | Company | Debit | Credit | Interest | Balances |
| **Balance Sheet** | | | | | | |
| Cash | $ 95,000 | $ 70,000 | | | | $ 165,000 |
| Accounts Receivable | 302,000 | 90,000 | | | | 392,000 |
| Inventory | 450,000 | 200,000 | | (3) 16,400 | | 633,600 |
| Investment in Selby Comp. | 990,000 | | (1) 84,000 | (6) 1,074,000 | | |
| Difference between Implied & Book Value | | | (6) 512,500 | (7) 512,500 | | |
| Plant and Equipment | 850,000 | 585,000 | (7) 150,000 | (8) 30,000 | | 1,555,000 |
| Goodwill | | | (7) 312,500 | | | 312,500 |
| Other Assets | 390,000 | 230,000 | | | | 620,000 |
| Total Assets | $3,077,000 | $1,175,000 | | | | $3,678,100 |
| | | | | | | |
| Accounts Payable | $ 75,000 | $ 30,000 | | | | $ 105,000 |
| Other Liabilities | 102,000 | 60,000 | | | | 162,000 |
| Common stock: | | | | | | |
| Perry Company | 960,000 | | | | | 960,000 |
| Selby Company | | 350,000 | (6) 350,000 | | | |
| Retained Earnings from above | 1,940,000 | 735,000 | 908,000 | 426,000 | 45,400 | 2,147,600 |
| 1/1 Noncontrolling Interest in Net Assets | | | (4) 2,400 | (6) 268,500 | 258,100 | |
| | | | (7) 5,000 | | | |
| 12/31 Noncontrolling Interest in Net Assets | | | (8) 3,000 | | $303,500 | 303,500 |
| Total Liabilities and Equity | $3,077,000 | $1,175,000 | $2,327,400 | $2,327,400 | | $3,678,100 |

Explanations of workpaper entries are on next page

**Problem 6-9 (continued)**

**Explanations of workpaper entries**

Computation and Allocation of Difference Schedule

| | Parent Share | Non-Controlling Share | Entire Value |
|---|---|---|---|
| Purchase price and implied value | **$990,000** | **247,500** | 1,237,500 * |
| Less: Book value of equity acquired | 580,000 | 145,000 | **725,000** |
| Difference between implied and book value | 410,000 | 102,500 | **512,500** |
| Inventory ($210,000 - $ 160,000) | (40,000) | (10,000) | (**50,000**) |
| Equipment ($780,000 - $ 630,000) | (120,000) | (30,000) | (**150,000**) |
| Balance | 250,000 | 62,500 | 312,500 |
| Goodwill | (250,000) | (62,500) | (**312,500**) |
| Balance | -0- | -0- | -0- |

*$990,000/.80

| | | |
|---|---|---|
| (1) Investment in Selby Company (0.80 × ($480,000 – $375,000)) | 84,000 | |
| Beginning Retained Earnings - Perry Co. | | 84,000 |
| To establish reciprocity/convert to equity as of 1/1/10 | | |
| (2) Sales | 310,000 | |
| Purchases (Cost of Goods Sold) | | 310,000 |
| To eliminate intercompany sales | | |
| (3) Ending Inventory - Income Statement (CoGS) | 16,400 | |
| Ending Inventory (Balance Sheet) | | 16,400 |
| To eliminate unrealized intercompany profit in ending inventory ($82,000 × .2) | | |
| (4) Beginning Retained Earnings - Perry Co. ($12,000 × .80) | 9,600 | |
| Noncontrolling Interest ($12,000 × .20) | 2,400 | |
| Beginning Inventory (Income Statement) | | 12,000 |
| To recognize intercompany profit in beginning inventory realized during the year ($60,000 – ($60,000/1.25)) = $12,000 | | |
| (5) Dividend Income ($25,000 × .80) | 20,000 | |
| Dividends Declared | | 20,000 |
| To eliminate intercompany dividends | | |
| (6) Beginning Retained Earnings - Selby Co. | 480,000 | |
| Common Stock - Selby Co. | 350,000 | |
| Difference between Implied and Book Value | 512,500 | |
| Investment in Selby Co. ($990,000 + $84,000) | | 1,074,000 |
| Noncontrolling Interest [$247,500 +.2 x ($480,000 – $375,000)] | | 268,500 |

**Problem 6-9 (continued)**

| | | |
|---|---|---|
| (7) Equipment | 150,000 | |
| Beginning Inventory (Income Statement) | 25,000 | |
| Beginning Retained Earnings - Perry Co. | 20,000 | |
| Noncontrolling Interest | 5,000 | |
| Goodwill | 312,500 | |
| Difference between Implied and Book value | | 512,500 |
| (8) Other Expenses (Depreciation) ($150,000/10) | 15,000 | |
| Beginning Retained Earnings - Perry Co. | 12,000 | |
| Noncontrolling Interest | 3,000 | |
| Equipment | | 30,000 |

**Part B**

| | | |
|---|---|---|
| Perry Company's Retained Earnings on 12/31/10 | | $1,940,000 |
| Amount of Perry Company Retained Earnings that have not been realized in transactions with third parties | | (16,400) |
| Perry Company's Retained Earnings that have been realized in transactions with third parties | | 1,923,600 |
| Increase in retained earnings of Selby Company from date of acquisition to 12/31/10 ($735,000 – $375,000) | 360,000 | |
| Less: Cumulative effect of adjustments to date relating to amortization of the difference between implied and book value ($50,000 + $30,000) | (80,000) | |
| Less:Unrealized profit on sales to Perry in 2010 that has not been realized by sales to third parties | 0 | |
| Increase in retained earnings of Selby Company since acquisition that has been realized in transactions with third parties | 280,000 | |
| Perry Company's share (.80 × $280,000) | 80% | 224,000 |
| Consolidated Retained Earnings as of 12/31/10 | | $2,147,600 |

Consolidated Retained Earnings

| | | | | |
|---|---|---|---|---|
| Perry 's Share of unrealized profit on *downstream* sales to Selby (in Selby's ending inventory), .2($82,000) | 16,400 | Perry 's Retained Earnings on 12/31/10 | | $1,940,000 |
| | | Increase in Selby's Retained Earnings since acquisition ($735,000 - $375,000) = | $360,000 | |
| | | Less: cumulative amortization of difference between implied and book value | 80,000 | |
| | | Adjusted Increase | $280,000 | |
| | | Perry's share thereof | .80 | 224,000 |
| | | Consolidated Retained Earnings | | $2,147,600 |

## Problem 6-10

**Part A** **2011**

| | Salvador | Sencal | Total |
|---|---|---|---|
| Reported net income | $50,000 | $60,000 | |
| Unrealized profit therein | (6,000) | (5,000) | |
| Income included in consolidated income | 44,000 | 55,000 | |
| Percentage interest | 0.1 | 0.2 | |
| Noncontrolling interest in consolidated income | $4,400 | $11,000 | $15,400 |

**2012**

| | Salvador | Sencal | Total |
|---|---|---|---|
| Reported net income | $45,000 | $75,000 | |
| Unrealized profit therein | (10,000) | (2,000) | |
| Profit realized in 2012 | 6,000 | 5,000 | |
| Income included in consolidated income | 41,000 | 78,000 | |
| Percentage interest | 0.1 | 0.2 | |
| Noncontrolling interest in consolidated income | $4,100 | $15,600 | $19,700 |

**Part B** **2011**

| | | |
|---|---|---|
| Penn Company's net income from its own operations | | $600,000 |
| Amount of income not realized in transactions with third parties ($8,000 + $4,000) | | (12,000) |
| Penn Company's realized net income | | 588,000 |
| Salvador Company's net income | $50,000 | |
| Less unrealized profit included therein | (6,000) | |
| Salvador Company's realized income | $44,000 | |
| Penn Company's share (.90 × $44,000) | | 39,600 |
| Sencal Company's net income | $60,000 | |
| Less unrealized profit included therein | (5,000) | |
| Sencal Company's realized income | $55,000 | |
| Penn Company's share (.80 × $55,000) | | 44,000 |
| Controlling interest in consolidated net income | | $671,600 |

**2012**

| | | |
|---|---|---|
| Penn Company's net income from its own operations | | $400,000 |
| Less unrealized profit included therein ($5,000 + $9,000) | | (14,000) |
| Plus profit realized in 2012 | | 12,000 |
| Penn Company's realized net income | | 398,000 |
| Salvador Company's net income | $45,000 | |
| Less unrealized profit included therein | (10,000) | |
| Plus profit realized in 2012 | 6,000 | |
| Salvador Company's realized income | $41,000 | |
| Penn Company's share (.90 × $41,000) | | 36,900 |
| Sencal Company's net income | $75,000 | |
| Less unrealized profit included therein | (2,000) | |
| Plus profit realized in 2012 | 5,000 | |
| Sencal Company's realized income | $78,000 | |
| Penn Company's share (.80 × $78,000) | | 62,400 |
| Controlling interest in consolidated net income | | $497,300 |

**Problem 6-11**
**Part A**

PRUITT CORPORATION AND SUBSIDIARY
Consolidated Statement Workpaper
For the Year Ended December 31, 2013

| | Pruitt Corporation | Sedbrook Company | Eliminations Dr. | Eliminations Cr. | Noncontrolling Interest | Consolidated Balances |
|---|---|---|---|---|---|---|
| **Income Statement** | | | | | | |
| Sales | 1,100,000 | 530,000 | (2) 200,000 | | | 1,430,000 |
| Equity in subsidiary income | 47,250 | | (1) 47,250 | | | |
| Total revenue | 1,147,250 | 530,000 | | | | 1,430,000 |
| Cost of goods sold: | | | | | | |
| Beginning inventory | 150,000 | 110,000 | | (4) 30,000 | | 230,000 |
| Purchases | 850,000 | 350,000 | | (2) 200,000 | | 1,000,000 |
| Cost of goods available | 1,000,000 | 460,000 | | | | 1,230,000 |
| Less ending inventory | 200,000 | 120,000 | (3) 10,000 | | | 310,000 |
| Cost of goods sold | 800,000 | 340,000 | | | | 920,000 |
| Other expenses | 180,000 | 137,500 | | | | 317,500 |
| Total cost & expense | 980,000 | 477,500 | | | | 1,237,500 |
| Net/consolidated income | 167,250 | 52,500 | | | | 192,500 |
| Noncontrolling interest in income | | | | | 5,250* | (5,250) |
| Net income to retained earnings | 167,250 | 52,500 | 257,250 | 230,000 | 5,250 | 187,250 |
| **Statement of Retained Earnings** | | | | | | |
| 1/1 Retained earnings | | | | | | |
| Pruitt Corporation | 562,000 | | (4) 30,000 | | | 532,000 |
| Sedbrook Company | | 120,000 | (5) 120,000 | | | |
| Net income from above | 167,250 | 52,500 | 257,250 | 230,000 | 5,250 | 187,250 |
| Dividends declared | | | | | | |
| Pruitt Corporation | (100,000) | | | | | (100,000) |
| Sedbrook Company | | (30,000) | | (1) 27,000 | (3,000) | |
| 12/31 Retained earnings to balance sheet | 629,250 | 142,500 | 407,250 | 257,000 | 2,250 | 619,250 |

*Noncontrolling interest in income = 0.10 × $52,500 = $5,250

| **Problem 6-11 (continued)** | Pruitt | Sedbrook | Eliminations | | Noncontrolling | Consolidated |
|---|---|---|---|---|---|---|
| | Corporation | Company | Dr. | Cr. | Interest | Balances |
| **Balance Sheet** | | | | | | |
| Cash | 83,000 | 80,000 | | | | 163,000 |
| Accounts receivable | 213,000 | 112,500 | | | | 325,500 |
| Inventory | 200,000 | 120,000 | | (3) 10,000 | | 310,000 |
| Investment in Sedbrook Company | 578,250 | | | (5) 558,000 | | |
| | | | | (1) 20,250 | | |
| Other assets | 500,000 | 400,000 | | | | 900,000 |
| Total assets | 1,574,250 | 712,500 | | | | 1,698,500 |
| | | | | | | |
| Accounts payable | 70,000 | 30,000 | | | | 100,000 |
| Other liabilities | 75,000 | 40,000 | | | | 115,000 |
| Capital Stock: | | | | | | |
| Pruitt Corporation | 800,000 | | | | | 800,000 |
| Sedbrook Company | | 500,000 | (5) 500,000 | | | |
| Retained earnings from above | 629,250 | 142,500 | 407,250 | 257,000 | 2,250 | 619,250 |
| 1/1 Noncontrolling interest | | | | (5) 62,000 | 62,000 | |
| 12/31 Noncontrolling interest | | | | | 64,250 | 64,250 |
| Total liabilities & equity | 1,574,250 | 712,500 | 907,250 | 907,250 | | 1,698,500 |

Explanations of workpaper entries are on next page

**Problem 6-11 (continued)**

**Explanation of workpaper entries**

| | | | |
|---|---|---|---|
| (1) | Equity in Subsidiary Income | 47,250 | |
| | Investment in Sedbrook Company | | 20,250 |
| | Dividends Declared ($30,000 × .90) | | 27,000 |
| | To reverse the effect of parent company entries during the year for subsidiary dividends and income | | |
| (2) | Sales | 200,000 | |
| | Purchases (Cost of Goods Sold) | | 200,000 |
| | To eliminate intercompany sales | | |
| (3) | Ending Inventory - Income Statement (CoGS) | 10,000 | |
| | Ending Inventory (Balance Sheet) | | 10,000 |
| | To eliminate unrealized intercompany profit in ending inventory ($50,000 – ($50,000/1.25)) | | |
| (4) | Beginning Retained Earnings- Pruitt Corporation | 30,000 | |
| | Beginning Inventory(Income Statement) | | 30,000 |
| | To recognize intercompany profit in beginning inventory realized during the year | | |
| (5) | Beginning Retained Earnings- Sedbrook Co. | 120,000 | |
| | Common Stock - Sedbrook Company | 500,000 | |
| | Investment in Sedbrook Company ($578,250 - $20,250) | | 558,000 |
| | Noncontrolling Interest ($500,000 + $120,000) x .10 | | 62,000 |
| | To eliminate investment account and create noncontrolling account | | |

| | | |
|---|---|---|
| **Part B** | Pruitt Corporation's retained earnings on 12/31/2013 | $ 629,250 |
| | Unrealized profit on downstream sales included therein | (10,000) |
| | Unrealized profit on upstream sales included therein | 0 |
| | Consolidated retained earnings on 12/31/2013 | $ 619,250 |

Consolidated Retained Earnings

| | | | |
|---|---|---|---|
| | | Pruitt's Retained Earnings on 12/31/13 | $629,250 |
| Unrealized profit on *downstream* sales to Sedbrook (in Sedbrook's ending Inventory) | 10,000 | | |
| | | Consolidated Retained Earnings | $619,250 |

**Problem 6-12**

PRUITT CORPORATION AND SUBSIDIARY
Consolidated Statements Workpaper
For the Year Ended December 31, 2013

| Debits | Pruitt Corporation | Sedbrook Company | Eliminations Dr. | Eliminations Cr. | Consolidated Income Stat. | Consolidated Ret. Earnings | Noncontrolling Interest | Consolidated Balances |
|---|---|---|---|---|---|---|---|---|
| Cash | 83,000 | 80,000 | | | | | | 163,000 |
| Accounts Receivable(net) | 213,000 | 112,500 | | | | | | 325,500 |
| Inventory 1/1 | 150,000 | 110,000 | | (4) 30,000 | 230,000 | | | |
| Investment in Sedbrook Company | 578,250 | | | (5) 558,000<br>(1) 20,250 | | | | |
| Other Assets | 500,000 | 400,000 | | | | | | 900,000 |
| Dividends Declared | | | | | | | | |
| Pruitt Corporation | 100,000 | | | | | (100,000) | | |
| Sedbrook Company | | 30,000 | | (1) 27,000 | | | (3,000) | |
| Purchases | 850,000 | 350,000 | | (2) 200,000 | 1,000,000 | | | |
| Other Expenses | 180,000 | 137,500 | | | 317,500 | | | |
| Total | 2,654,250 | 1,220,000 | | | | | | |
| Inventory 12/31 | 200,000 | 120,000 | | (3) 10,000 | | | | 310,000 |
| Total assets | | | | | | | | 1,698,500 |
| Credits | | | | | | | | 100,000 |
| Accounts Payable | 70,000 | 30,000 | | | | | | |
| Other Liabilities | 75,000 | 40,000 | | | | | | 115,000 |
| Common Stock: | | | | | | | | |
| Pruitt Corporation | 800,000 | | | | | | | 800,000 |
| Sedbrook Company | | 500,000 | (5) 500,000 | | | | | |
| Retained Earnings | | | | | | | | |
| Pruitt Corporation | 562,000 | | (4) 30,000 | | | 532,000 | | |
| Sedbrook Company | | 120,000 | (5) 120,000 | | | | | |
| Sales | 1,100,000 | 530,000 | (2) 200,000 | | (1,430,000) | | | |
| Equity in Subsidiary Income | 47,250 | | (1) 47,250 | | | | | |
| Totals | 2,654,250 | 1,220,000 | | | | | | |
| Inventory 12/31 | 200,000 | 120,000 | (3) 10,000 | | (310,000) | | | |
| Net/Consolidated Income | | | | | 192,500 | | | |
| Noncontrolling Interest in Income | | | | | (5,250) | | 5,250 | |
| Control. Interest. in Consol. Income | | | | | 187,250 | 187,250 | | |
| Consolidated Retained Earnings | | | | | | 619,250 | | 619,250 |
| Noncontrolling Interest in Net Assets | | | | (5) 62,000 | | | 62,250 | |
| | | | | | | | 64,250 | 64,250 |
| | | | 907,250 | 907,250 | | | | |
| Total liabilities and Equity | | | | | | | | 1,698,500 |

*Noncontrolling Interest in Consolidated Income = 0.10 × 52,500 = $5,250

See solution to Problem 6-11 for explanation of Workpaper entries

**Problem 6-13**
**Part A**

PAQUE CORPORATION AND SUBSIDIARY
Consolidated Statement Workpaper
For the Year Ended December 31, 2013

|  | Paque | Segal | Eliminations |  | Noncontrolling | Consolidated |
|---|---|---|---|---|---|---|
|  | Corporation | Company | Dr. | Cr. | Interest | Balances |
| **Income Statement** |  |  |  |  |  |  |
| Sales | 1,650,000 | 795,000 | (2) 300,000 |  |  | 2,145,000 |
| Equity in subsidiary income | 64,125 |  | (1) 64,125 |  |  |  |
| Total revenue | 1,714,125 | 795,000 |  |  |  | 2,145,000 |
| Cost of goods sold: |  |  |  |  |  |  |
| Beginning inventory | 225,000 | 165,000 |  | (4) 45,000 |  | 345,000 |
| Purchases | 1,275,000 | 525,000 |  | (2) 300,000 |  | 1,500,000 |
| Cost of goods available | 1,500,000 | 690,000 |  |  |  | 1,845,000 |
| Less ending inventory | 210,000 | 172,500 | (3) 15,000 |  |  | 367,500 |
| Cost of goods sold | 1,290,000 | 517,500 |  |  |  | 1,477,500 |
| Other expenses | 310,500 | 206,250 |  |  |  | 516,750 |
| Total cost & expense | 1,600,500 | 723,750 |  |  |  | 1,994,250 |
| Net/consolidated income | 113,625 | 71,250 |  |  |  | 150,750 |
| Noncontrolling interest in income |  |  |  |  | 10,125 * | (10,125) |
| Net income to retained earnings | 113,625 | 71,250 | 379,125 | 345,000 | 10,125 | 140,625 |
|  |  |  |  |  |  |  |
| **Statement of Retained Earnings** |  |  |  |  |  |  |
| 1/1Retained earnings |  |  |  |  |  |  |
| Paque Corporation | 838,500 |  | (4) 40,500 |  |  | 798,000 |
| Segal Company |  | 180,000 | (5) 180,000 |  |  |  |
|  |  |  |  |  |  |  |
| Net income from above | 113,625 | 71,250 | 379,125 | 345,000 | 10,125 | 140,625 |
| Dividends declared |  |  |  |  |  |  |
| Paque Corporation | (150,000) |  |  |  |  | (150,000) |
| Segal Company |  | (60,000) |  | (1) 54,000 | (6,000) |  |
| 12/31 Retained earnings to balance sheet | 802,125 | 191,250 | 599,625 | 399,000 | 4,125 | 788,625 |

| **Problem 6-13 (continued)** | Paque | Segal | Eliminations | | Noncontrolling | Consolidated |
|---|---|---|---|---|---|---|
| | Corporation | Company | Dr. | Cr. | Interest | Balances |
| **Balance Sheet** | | | | | | |
| Cash | 93,000 | 75,000 | | | | 168,000 |
| Accounts Receivable | 319,500 | 168,750 | | | | 488,250 |
| Inventory | 210,000 | 172,500 | | (3) 15,000 | | 367,500 |
| Investment in Segal Company | 847,125 | | | (5) 837,000 | | |
| | | | | (1) 10,125 | | |
| Other Assets | 750,000 | 630,000 | | | | 1,380,000 |
| Total assets | 2,219,625 | 1,046,250 | | | | 2,403,750 |
| Accounts Payable | 105,000 | 45,000 | | | | 150,000 |
| Other Current Liabilities | 112,500 | 60,000 | | | | 172,500 |
| Capital Stock: | | | | | | |
| Paque Corporation | 1,200,000 | | | | | 1,200,000 |
| Segal Company | | 750,000 | (5) 750,000 | | | |
| Retained Earnings from above | 802,125 | 191,250 | 599,625 | 399,000 | 4,125 | 788,625 |
| 1/1 Noncontrolling Interest | | | (4) 4,500 | (5) 93,000 | 88,500 | |
| 12/31 Noncontrolling Interest | | | | | 92,625 | 92,625 |
| Total liabilities & equity | 2,219,625 | 1,046,250 | 1,354,125 | 1,354,125 | | 2,403,750 |

*Noncontrolling Interest in Consolidated Income = 0.10 × ($71,250 + $45,000 – $15,000) = $10,125
Explanations of workpaper entries are on next page.

**Problem 6-13 (continued)**

**Explanation of workpaper entries**

| | | | |
|---|---|---|---|
| (1) | Equity in Subsidiary Income | 64,125 | |
| | Investment in Segal Company | | 10,125 |
| | Dividends Declared ($60,000 × 0.90) | | 54,000 |
| | To reverse the effect of parent company entries during the year for subsidiary dividends and income | | |
| (2) | Sales | 300,000 | |
| | Purchases (Cost of Goods Sold) | | 300,000 |
| | To eliminate intercompany sales | | |
| (3) | Ending Inventory - Income Statement (CoGS) | 15,000 | |
| | Ending Inventory (Balance Sheet) | | 15,000 |
| | To eliminate unrealized intercompany profit in ending inventory ($75,000 × 0.2). | | |
| (4) | Beginning Retained Earnings - Paque Corporation ($45,000 × 0.90) | 40,500 | |
| | Noncontrolling Interest ($45,000 × 0.10) | 4,500 | |
| | Beginning Inventory -Income Statement (CoGS) | | 45,000 |
| | To recognize intercompany profit realized during the year and to reduce controlling and noncontrolling interests for their share of unrealized profit at beginning of year | | |
| (5) | Beginning Retained Earnings- Segal Co. | 180,000 | |
| | Common Stock - Segal Company | 750,000 | |
| | Investment in Segal Company ($847,125 - $10,125) | | 837,000 |
| | Noncontrolling Interest ($750,000 +$180,000) x .10 | | 93,000 |

**Part B**

| | |
|---|---|
| Paque Corporation's Retained Earnings on 12/31/2013 | $802,125 |
| Unrealized profit on downstream sales included therein | 0 |
| Unrealized profit on upstream sales included therein (0.90 × $15,000) | (13,500) |
| Consolidated retained earnings on 12/31/2013 | $ 788,625 |

Consolidated Retained Earnings

| | | | |
|---|---|---|---|
| Paque's Share of unrealized profit on *upstream* sales from S Company (in Paque's ending inventory), .9($15,000) | 13,500 | Paque 's Retained Earnings on 12/31/13 | $802,125 |
| | | Consolidated Retained Earnings | $788,625 |

**Part C** – Balances are the same as in Problem 6-7.

**Problem 6-14**
**Part A**

PERRY COMPANY AND SUBSIDIARY
Consolidated Statement Workpaper
For the Year Ended December 31, 2011

| | Perry Company | Selby Company | Eliminations Dr. | Eliminations Cr. | Noncontrolling Interest | Consolidated Balances |
|---|---|---|---|---|---|---|
| **Income Statement** | | | | | | |
| Sales | 1,385,000 | 720,000 | (2) 300,000 | | | 1,805,000 |
| Equity in subsidiary income | 208,000 | | (1) 208,000 | | | |
| Total revenue | 1,593,000 | 720,000 | | | | 1,805,000 |
| Cost of goods sold: | | | | | | |
| Beginning inventory | 210,000 | 155,000 | (6a) 37,500 | (4) 9,000 | | 393,500 |
| Purchases | 875,000 | 360,000 | | (2) 300,000 | | 935,000 |
| Cost of goods available | 1,085,000 | 515,000 | | | | 1,328,500 |
| Less ending inventory | 400,000 | 225,000 | (3) 15,600 | | | 609,400 |
| Cost of goods sold | 685,000 | 290,000 | | | | 719,100 |
| Other expenses | 225,000 | 170,000 | (6a) 20,000 | | | 415,000 |
| Total cost & expense | 910,000 | 460,000 | | | | 1,134,100 |
| Net/consolidated income | 683,000 | 260,000 | | | | 670,900 |
| Noncontrolling interest in income | | | | | 42,300 | (42,300) |
| Net income to retained earnings | 683,000 | 260,000 | 581,100 | 309,000 | 42,300 | 628,600 |
| **Statement of Retained Earnings** | | | | | | |
| 1/1 Retained earnings | | | | | | |
| Perry Company | 1,472,700 | | (4) 7,200<br>(6a) 46,000 | | | 1,419,500 |
| Selby Company | | 450,000 | (5) 450,000 | | | |
| Net income from above | 683,000 | 260,000 | 581,100 | 309,000 | 42,300 | 628,600 |
| Dividends declared | | | | | | |
| Perry Company | (40,000) | | | | | (40,000) |
| Selby Company | | (30,000) | | (1) 24,000 | (6,000) | |
| 12/31 Retained earnings to balance sheet | 2,115,700 | 680,000 | 1,084,300 | 333,000 | 36,300 | 2,008,100 |

| **Problem 6-14 (continued)** | Perry | Selby | Eliminations | | Noncontrolling | Consolidated |
|---|---|---|---|---|---|---|
| | Company | Company | Dr. | Cr. | Interest | Balances |
| **Balance Sheet** | | | | | | |
| Cash | 90,000 | 65,000 | | | | 155,000 |
| Accounts Receivable | 297,000 | 85,000 | | | | 382,000 |
| Inventory | 400,000 | 225,000 | | (3) 15,600 | | 609,400 |
| Investment in Selby Company | 1,184,000 | | | (1) 184,000 | | |
| | | | | (5)1,000,000 | | |
| Difference between Implied & Book Value | | | (5) 400,000 | (6a) 400,000 | | |
| Plant and Equipment | 880,000 | 540,000 | (6a) 160,000 | | | 1,580,000 |
| Goodwill | | | (6a) 125,000 | | | 125,000 |
| Other Assets | 384,000 | 230,000 | | | | 614,000 |
| Total assets | 3,235,000 | 1,145,000 | | | | 3,465,400 |
| Accounts Payable | 24,300 | 25,000 | | | | 49,300 |
| Other liabilities | 95,000 | 40,000 | | | | 135,000 |
| Capital Stock: | | | | | | |
| Perry Company | 1,000,000 | | | | | 1,000,000 |
| Selby Company | | 400,000 | (5) 400,000 | | | |
| Retained Earnings from above | 2,115,700 | 680,000 | 1,084,300 | 333,000 | 36,300 | 2,008,100 |
| 1/1 Noncontrolling Interest in Net Assets | | | (6a) 11,500 | (5) 250,000 | 236,700 | |
| | | | (4) 1,800 | | | |
| 12/31Noncontrolling Interest | | | | | 273,000 | 273,000 |
| Total liabilities & equity | 3,235,000 | 1,145,000 | 2,182,600 | 2,182,600 | | 3,465,400 |

*Noncontrolling Interest in Consolidated Income = 0.20 × ($260,000 + $9,000 - $37,500 - $20,000) = $42,300.
Explanations of workpaper entries are on next page.

## Problem 6-14 (continued)

Computation and Allocation of Difference Schedule

| | Parent Share | Non-Controlling Share | Entire Value |
|---|---|---|---|
| Purchase price and implied value | **$960,000** | **240,000** | 1,200,000 * |
| Less: Book value of equity acquired | 640,000 | 160,000 | **800,000** |
| Difference between implied and book value | 320,000 | 80,000 | **400,000** |
| Inventory ($230,000 - $ 155,000) | (60,000) | (15,000) | (**75,000)** |
| Equipment ($800,000 - $ 600,000) | (160,000) | (40,000) | (**200,000)** |
| Balance | 100,000 | 25,000 | 125,000 |
| Goodwill | (100,000) | (25,000) | (**125,000)** |
| Balance | -0- | -0- | -0- |

*$960,000/.80

**Explanation of workpaper entries**

| | | |
|---|---|---|
| (1) Equity in Subsidiary Income | 208,000 | |
| Dividends Declared ($30,000 × 0.80) | | 24,000 |
| Investment in Selby Company | | 184,000 |
| To reverse the effect of parent company entries during the year for subsidiary dividends and income | | |
| (2) Sales | 300,000 | |
| Purchases (Cost of Goods Sold) | | 300,000 |
| To eliminate intercompany sale | | |
| (3) Ending Inventory - Income Statement (CoGS) | 15,600 | |
| Ending Inventory (Balance Sheet) | | 15,600 |
| To eliminate unrealized intercompany profit in ending inventory ($78,000 × 0.2). | | |
| (4) Beginning Retained Earnings- Perry Co. ($9,000 × 0.80) | 7,200 | |
| Noncontrolling Interest ($9,000 × 0.20) | 1,800 | |
| Beginning Inventory –Income Statement (CoGS) | | 9,000* |
| *($54,000 - ($54,000/1.2)) | | |
| To recognize intercompany profit realized during the year and to reduce the controlling and noncontrolling interests for their share of unrealized profit at beginning of year. | | |
| (5) Beginning Retained Earnings- Selby Company | 450,000 | |
| Common Stock - Selby Company | 400,000 | |
| Difference between Implied and Book Value | 400,000 | |
| Investment in Selby Company<br>[$960,000 + ($450,000 - $400,000) x .80] | | 1,000,000 |
| Noncontrolling Interest [$240,000 + ($450,000 - $400,000) x .20] | | 250,000 |

**Problem 6-14 (continued)**

| | | | |
|---|---|---|---|
| (6) | Beginning Inventory (Income Statement ) | 37,500 [a] | |
| | Beginning Retained Earnings- Perry Company | 30,000 | |
| | Noncontrolling Interest ($37,500 x .20) | 7,500 | |
| | Plant and Equipment | 200,000 | |
| | Goodwill | 125,000 | |
| | Difference between Implied and Book Value | | 400,000 |

To allocate the difference between implied and book value

[a]$75,000 × (1/2) = $37,500

| | | | |
|---|---|---|---|
| (7) | Other Expenses | 20,000 [b] | |
| | Beginning Retained Earnings- Perry Company | 16,000 | |
| | Noncontrolling Interest ($20,000 x .20) | 4,000 | |
| | Plant and Equipment (2 × $20,000)) | | 40,000 |

Alternative to entries (6) and (7)

| | | | |
|---|---|---|---|
| (6a) | Beginning Retained Earnings- Perry Company | 46,000 [c] | |
| | Noncontrolling Interest | 11,500 [d] | |
| | Beginning Inventory -Income Statement (CoGS) | 37,500 [a] | |
| | Other Expenses | 20,000 [b] | |
| | Plant and Equipment ($200,000 – (2 × $20,000)) | 160,000 | |
| | Goodwill | 125,000 | |
| | Difference between Implied and Book Value | | 400,000 |

To allocate, amortize and depreciate the difference between implied and book value

[a] $75,000 × (1/2) = $37,500
[b] $200,000/10 = $20,000
[c] $30,000 + $16,000 = $46,000
[d] ($37,500 + $20,000) x .20 = $11,500

**Part B**

| | |
|---|---|
| Perry Company's Retained Earnings on 12/31/2011 | $2,115,700 |
| Amount of Perry Company Retained Earnings that has not been realized in transactions with third parties | (15,600) |
| Perry Company's Retained Earnings that have been realized in transactions with third parties | 2,100,100 |
| Less cumulative effect of adjustments to date relating to amortization of the difference between implied and book value ($46,000 + $16,000 + $30,000) | (92,000) |
| Consolidated Retained Earnings on 12/31/2011 | $2,008,100 |

## Problem 6-15

**Part A** 2012

| | | |
|---|---|---|
| (1) Sales | 120,000 | |
| Purchases (Cost of Goods Sold) | | 120,000 |
| To eliminate intercompany sales ($50,000 + $70,000) | | |
| (2) Ending Inventory – Income Statement (CoGS) | 15,000 | |
| Inventory (Balance Sheet) | | 15,000 |
| To eliminate unrealized profit in ending inventories ($10,000 + $5,000) | | |
| (3) Beginning Retained Earnings – Paul Company ($20,000 × 0.8) | 16,000 | |
| Beginning Retained Earnings – Simon Company | 4,000 | |
| Beginning Inventory – Income Statement (CoGS) | | 20,000 |
| To recognize profit in beginning inventory (upstream sales) realized during year and to reduce the controlling and noncontrolling interests for their shares of the amount of unrealized upstream intercompany profit at beginning of year | | |
| (4) Beginning Retained Earnings – Paul Company. | 30,000 | |
| Beginning Inventory – Income Statement (CoGS) | | 30,000 |
| To recognize profit in beginning inventory (downstream sales) realized during the year and to reduce consolidated retained earnings at beginning of the year for the amount of unrealized downstream intercompany profit at the beginning of the year | | |

**Part B** Calculation of 2012 Controlling interest in Consolidated Net Income

| | | |
|---|---|---|
| Paul Company's net income from its independent operations | | $700,000 |
| Less unrealized intercompany profit on 2012 sales to Simon Company | | (5,000) |
| Plus profit on 2011 sales to Simon Company realized in transactions with third parties in 2012 | | 30,000 |
| Paul Company's net income from independent operations that has been realized in transactions with third parties | | 725,000 |
| Reported net income of Simon Company | $270,000 | |
| Less amortization of the difference between implied and book value ($250,000*/25) | (10,000) | |
| Less unrealized intercompany profit on 2012 sales to Paul Company | (10,000) | |
| Plus profit on 2011 sales to Paul Company realized in transaction with third parties in 2012 | 20,000 | |
| Simon Company's net income that has been realized in transaction with third parties | 270,000 | |
| Paul Company's share | 80% | 216,000 |
| Controlling interest in consolidated net income | | $941,000 |

* [$1,360,000/.80 – ($1,000,000 + $450,000)] = $250,000

**Problem 6-15 (continued)**

**Part C** Calculation of 12/31/2012 Consolidated Retained Earnings

| | | |
|---|---|---|
| Paul Company's Retained Earnings on 12/31/2012 | | $1,500,000 |
| Less the amount of Paul's retained earnings that have not been realized in transactions with thirds parties | | (5,000) |
| Paul Company's Retained Earnings that have been realized in transactions with third parties | | 1,495,000 |
| Increase in retained earnings of Simon Company from date of acquisition to 12/31/2012 ($960,000 – $450,000) | $510,000 | |
| Less cumulative amortization of the difference between implied and book value (4 × $10,000) | (40,000) | |
| Less unrealized profit included in Simon Company's retained earnings on 12/31/2012 | (10,000) | |
| Increase in reported retained earnings of Simon Company since acquisition that has been realized in transactions with third parties | $460,000 | |
| Paul Company's share | 80% | 368,000 |
| Consolidated Retained Earnings 12/31/2012 | | $1,863,000 |

**Part D** Calculation of Noncontrolling Interest in Consolidated Income
For the Year Ended December 31,2012

| | |
|---|---|
| Simon Company's reported income for 2012 | $270,000 |
| Less: Amortization of difference between implied and book value | (10,000) |
| Plus: Unrealized profit on 1/1/2012 | 20,000 |
| Less: Unrealized profit on 12/31/2012 | (10,000) |
| Amount included in 2012 consolidated income | $270,000 |
| | |
| Noncontrolling interest share therein (0.20 × $270,000) | $54,000 |

**Problem 6-16**
**Part A**

PRUITT CORPORATION AND SUBSIDIARY
Consolidated Statement Workpaper
For the Year Ended December 31, 2013

| | Pruitt | Sedbrook | Eliminations | | Noncontrolling | Consolidated |
|---|---|---|---|---|---|---|
| | Corporation | Company | Dr. | Cr. | Interest | Balances |
| **Income Statement** | | | | | | |
| Sales | 1,100,000 | 530,000 | (2) 200,000 | | | 1,430,000 |
| Equity in subsidiary income | 67,250 | | (1) 67,250 | | | |
| Total revenue | 1,167,250 | 530,000 | | | | 1,430,000 |
| Cost of goods sold: | | | | | | |
| Beginning inventory | 150,000 | 110,000 | | (4) 30,000 | | 230,000 |
| Purchases | 850,000 | 350,000 | | (2) 200,000 | | 1,000,000 |
| Cost of goods available | 800,000 | 460,000 | | | | 1,230,000 |
| Less ending inventory | 200,000 | 120,000 | (3) 10,000 | | | 310,000 |
| Cost of goods sold | 1,000,000 | 340,000 | | | | 920,000 |
| Other expenses | 180,000 | 137,500 | | | | 317,500 |
| Total cost & expense | 980,000 | 477,500 | | | | 1,237,500 |
| Net/consolidated income | 187,250 | 52,500 | | | | 192,500 |
| Noncontrolling interest in income | | | | | 5,250 * | (5,250) |
| Net income to retained earnings | 187,250 | 52,500 | 277,250 | 230,000 | 5,250 | 187,250 |
| | | | | | | |
| **Statement of Retained Earnings** | | | | | | |
| 1/1 Retained earnings | | | | | | |
| Pruitt Corporation | 532,000 | | | | | 532,000 |
| Sedbrook Company | | 120,000 | (5) 120,000 | | | |
| Net income from above | 187,250 | 52,500 | 277,250 | 230,000 | 5,250 | 187,250 |
| Dividends declared | | | | | | |
| Pruitt Corporation | (100,000) | | | | | (100,000) |
| Sedbrook Company | | (30,000) | | (1) 27,000 | (3,000) | |
| 12/31 Retained earnings to balance sheet | 619,250 | 142,500 | 397,250 | 257,000 | 2,250 | 619,250 |

**Problem 6-16 (continued)**

| | Pruitt | Sedbrook | Eliminations | | Noncontrolling | Consolidated |
|---|---|---|---|---|---|---|
| | Corporation | Company | Dr. | Cr. | Interest | Balances |
| **Balance Sheet** | | | | | | |
| Cash | 83,000 | 80,000 | | | | 163,000 |
| Accounts receivable | 213,000 | 112,500 | | | | 325,500 |
| Inventory | 200,000 | 120,000 | | (3) 10,000 | | 310,000 |
| Investment in Sedbrook Company | 568,250 | | (4) 30,000 | (5) 558,000 | | |
| | | | | (1) 40,250 | | |
| Other assets | 500,000 | 400,000 | | | | 900,000 |
| Total assets | 1,564,250 | 712,500 | | | | 1,698,500 |
| | | | | | | |
| Accounts payable | 70,000 | 30,000 | | | | 100,000 |
| Other liabilities | 75,000 | 40,000 | | | | 115,000 |
| Capital stock: | | | | | | |
| Pruitt Corporation | 800,000 | | | | | 800,000 |
| Sedbrook Company | | 500,000 | (5) 500,000 | | | |
| Retained earnings from above | 619,250 | 142,500 | 397,250 | 257,000 | 2,250 | 619,250 |
| 1/1 Noncontrolling interest | | | | (5) 62,000 | 62,000 | |
| 12/31 Noncontrolling interest | | | | | 64,250 | 64,250 |
| Total liabilities & equity | 1,564,250 | 712,500 | 927,250 | 927,250 | | 1,698,500 |

*Noncontrolling interest in income = 0.10 × $52,500 = $5,250
Explanations of workpaper entries are on next page

**Problem 6-16 (continued)**

**Explanation of workpaper entries**

| | | | |
|---|---|---|---|
| (1) | Equity in Subsidiary Income | 67,250* | |
| | Investment in Sedbrook Company | | 40,250 |
| | Dividends Declared ($30,000 × 0.90) | | 27,000 |
| | To reverse the effect of parent company entries during the year for subsidiary dividends and income | | |
| | * (.90)($52,500) + $30,000 - $10,000 = $67,250 | | |
| (2) | Sales | 200,000 | |
| | Purchases (Cost of Goods Sold) | | 200,000 |
| | To eliminate intercompany sales | | |
| (3) | Ending Inventory - Income Statement (CoGS) | 10,000 | |
| | Ending Inventory (Balance Sheet) | | 10,000 |
| | To eliminate unrealized intercompany profit in ending inventory ($50,000 – ($50,000/1.25)) | | |
| (4) | Investment in Sedbrook Company | 30,000 | |
| | Beginning Inventory (Income Statement) | | 30,000 |
| | To recognize intercompany profit in beginning inventory realized during the year | | |
| (5) | Beginning Retained Earnings- Sedbrook Co. | 120,000 | |
| | Common Stock - Sedbrook Company | 500,000 | |
| | Investment in Sedbrook Company ($568,250 - $40,250 + $30,000) | | 558,000 |
| | Noncontrolling Interest ($500,00 + $120,000) x .10 | | 62,000 |
| | To eliminate investment account and create noncontrolling interest account | | |

| | | |
|---|---|---|
| **Part B** | Pruitt Corporation's retained earnings on 12/31/2013 | $ 619,250 |
| | Consolidated retained earnings on 12/31/2013 | $ 619,250 |

**Part C** The balances are the same as in Problem 6-11

**Problem 6-17**
**Part A**

PAQUE CORPORATION AND SUBSIDIARY
Consolidated Statement Workpaper
For the Year Ended December 31, 2013

|  | Paque | Segal | Eliminations |  | Noncontrolling | Consolidated |
|---|---|---|---|---|---|---|
|  | Corporation | Company | Dr. | Cr. | Interest | Balances |
| **Income Statement** |  |  |  |  |  |  |
| Sales | 1,650,000 | 795,000 | (2) 300,000 |  |  | 2,145,000 |
| Equity in subsidiary income | 91,125 |  | (1) 91,125 |  |  |  |
| Total revenue | 1,741,125 | 795,000 |  |  |  | 2,145,000 |
| Cost of goods sold: |  |  |  |  |  |  |
| Beginning inventory | 225,000 | 165,000 |  | (4) 45,000 |  | 345,000 |
| Purchases | 1,275,000 | 525,000 |  | (2) 300,000 |  | 1,500,000 |
| Cost of goods available | 1,500,000 | 690,000 |  |  |  | 1,845,000 |
| Less ending inventory | 210,000 | 172,500 | (3) 15,000 |  |  | 367,500 |
| Cost of goods sold | 1,290,000 | 517,500 |  |  |  | 1,477,500 |
| Other expenses | 310,500 | 206,250 |  |  |  | 516,750 |
| Total cost & expense | 1,600,500 | 723,750 |  |  |  | 1,994,250 |
| Net/consolidated income | 140,625 | 71,250 |  |  |  | 150,750 |
| Noncontrolling interest in income |  |  |  |  | 10,125 * | (10,125) |
| Net income to retained earnings | 140,625 | 71,250 | 406,125 | 345,000 | 10,125 | 140,625 |
|  |  |  |  |  |  |  |
| **Statement of Retained Earnings** |  |  |  |  |  |  |
| 1/1Retained earnings |  |  |  |  |  |  |
| Paque Corporation | 798,000 |  |  |  |  | 798,000 |
| Segal Company |  | 180,000 | (5) 180,000 |  |  |  |
|  |  |  |  |  |  |  |
| Net income from above | 140,625 | 71,250 | 406,125 | 345,000 | 10,125 | 140,625 |
| Dividends declared |  |  |  |  |  |  |
| Paque Corporation | (150,000) |  |  |  |  | (150,000) |
| Segal Company |  | (60,000) |  | (1) 54,000 | (6,000) |  |
| 12/31 Retained earnings to balance sheet | 788, | 191,250 | 586,125 | 399,000 | 4,125 | 788,625 |

**Problem 6-17 (continued)**

| | Paque | Segal | Eliminations | | Noncontrolling | Consolidated |
|---|---|---|---|---|---|---|
| | Corporation | Company | Dr. | Cr. | Interest | Balances |
| **Balance Sheet** | | | | | | |
| Cash | 93,000 | 75,000 | | | | 168,000 |
| Accounts Receivable | 319,500 | 168,750 | | | | 488,250 |
| Inventory | 210,000 | 172,500 | | (3) 15,000 | | 367,500 |
| Investment in Segal Company | 833,625 | | (4) 40,500 | (5) 837,000 | | |
| | | | | (1) 37,125 | | |
| Other Assets | 750,000 | 630,000 | | | | 1,380,000 |
| Total assets | 2,206,125 | 1,046,250 | | | | 2,403,750 |
| Accounts Payable | 105,000 | 45,000 | | | | 150,000 |
| Other Current Liabilities | 112,500 | 60,000 | | | | 172,500 |
| Capital Stock: | | | | | | |
| Paque Corporation | 1,200,000 | | | | | 1,200,000 |
| Segal Company | | 750,000 | (5) 750,000 | | | |
| Retained Earnings from above | 788,625 | 191,250 | 586,125 | 399,000 | 4,125 | 788,625 |
| 1/1 Noncontrolling Interest | | | (4) 4,500 | (5) 93,000 | 88,500 | |
| 12/31 Noncontrolling Interest | | | | | 92,625 | 92,625 |
| Total liabilities & equity | 2,206,125 | 1,046,250 | 1,381,125 | 1,381,125 | | 2,403,750 |

*Noncontrolling Interest in Consolidated Income = 0.10 × ($71,250 + $45,000 – $15,000) = $10,125
Explanations of workpaper entries are on next page.

**Problem 6-17 (continued)**

**Explanation of workpaper entries**

| | | |
|---|---|---|
| (1) Equity in Subsidiary Income | 91,125* | |
| Investment in Segal Company | | 37,125 |
| Dividends Declared ($60,000 × 0.90) | | 54,000 |

To reverse the effect of parent company entries during the year for subsidiary dividends and income

* 0.90 × ($71,250 + $45,000 – $15,000) = $91,125

| | | |
|---|---|---|
| (2) Sales | 300,000 | |
| Purchases (Cost of Goods Sold) | | 300,000 |

To eliminate intercompany sales

| | | |
|---|---|---|
| (3) Ending Inventory - Income Statement (CoGS) | 15,000 | |
| Ending Inventory (Balance Sheet) | | 15,000 |

To eliminate unrealized intercompany profit in ending inventory ($75,000 × 0.2).

| | | |
|---|---|---|
| (4) Investment in Segal Company (.90)($45,000) | 40,500 | |
| Noncontrolling Interest (.1)($45,000) | 4,500 | |
| Beginning Inventory -Income Statement (CoGS) | | 45,000 |

To recognize intercompany profit realized during the year and to reduce controlling and noncontrolling interests for their share of unrealized profit at beginning of year

| | | |
|---|---|---|
| (5) Beginning Retained Earnings- Segal Co. | 180,000 | |
| Common Stock - Segal Company | 750,000 | |
| Investment in Segal Company ($833,625 - $37,125 + $40,500) | | 837,000 |
| Noncontrolling Interest ($750,000 + $180,000) x .10 | | 93,000 |

**Part B**

| | |
|---|---|
| Paque Corporation's Retained Earnings on 12/31/2013 | $ 788,625 |
| Consolidated retained earnings on 12/31/2013 | $ 788,625 |

**Part C** The balances are the same as in Problem 6-7 and Problem 6-13.

**Problem 6-18**
**Part A**

PERRY COMPANY AND SUBSIDIARY
Consolidated Statement Workpaper
For the Year Ended December 31, 2011

| | Perry | Selby | Eliminations | | Noncontrolling | Consolidated |
|---|---|---|---|---|---|---|
| | Company | Company | Dr. | Cr. | Interest | Balances |
| **Income Statement** | | | | | | |
| Sales | 1,385,000 | 720,000 | (2) 300,000 | | | 1,805,000 |
| Equity in subsidiary income | 153,600 | | (1)153,600 | | | |
| Total revenue | 1,538,600 | 720,000 | | | | 1,805,000 |
| Cost of goods sold: | | | | | | |
| Beginning inventory | 210,000 | 155,000 | (6) 37,500 | (4) 9,000 | | 393,500 |
| Purchases | 875,000 | 360,000 | | (2) 300,000 | | 935,000 |
| Cost of goods available | 1,085,000 | 515,000 | | | | 1,328,500 |
| Less ending inventory | 400,000 | 225,000 | (3) 15,600 | | | 609,400 |
| Cost of goods sold | 685,000 | 290,000 | | | | 719,100 |
| Other expenses | 225,000 | 170,000 | (7) 20,000 | | | 415,000 |
| Total cost & expense | 910,000 | 460,000 | | | | 1,134,100 |
| Net/consolidated income | 628,600 | 260,000 | | | | 670,900 |
| Noncontrolling interest in income | | | | | 42,300 | (42,300) |
| Net income to retained earnings | 628,600 | 260,000 | 526,700 | 309,000 | 42,300 | 628,600 |
| **Statement of Retained Earnings** | | | | | | |
| 1/1 Retained earnings | | | | | | |
| Perry Company | 1,419,500 | | | | | 1,419,500 |
| Selby Company | | 450,000 | (5) 450,000 | | | |
| Net income from above | 628,600 | 260,000 | 526,700 | 309,000 | 42,300 | 628,600 |
| Dividends declared | | | | | | |
| Perry Company | (40,000) | | | | | (40,000) |
| Selby Company | | (30,000) | | (1) 24,000 | (6,000 ) | |
| 12/31 Retained earnings to balance sheet | 2,008,100 | 680,000 | 976,700 | 333,000 | 36,300 | 2,008,100 |

| **Problem 6-18 (continued)** | Perry | Selby | Eliminations | | Noncontrolling | Consolidated |
|---|---|---|---|---|---|---|
| | Company | Company | Dr. | Cr. | Interest | Balances |
| **Balance Sheet** | | | | | | |
| Cash | 90,000 | 65,000 | | | | 155,000 |
| Accounts Receivable | 297,000 | 85,000 | | | | 382,000 |
| Inventory | 400,000 | 225,000 | | (3) 15,600 | | 609,400 |
| Investment in Selby Company | 1,076,400 | | (4) 7,200 | (1) 129,600 | | |
| | | | (6) 30,000 | (5)1,000,000 | | |
| | | | (7) 16,000 | | | |
| Difference between Implied & Book Value | | | (5) 400,000 | (6) 400,000 | | |
| Plant and Equipment | 880,000 | 540,000 | (6) 200,000 | (7) 40,000 | | 1,580,000 |
| Goodwill | | | (6) 125,000 | | | 125,000 |
| Other Assets | 384,000 | 230,000 | | | | 614,000 |
| Total assets | 3,127,400 | 1,145,000 | | | | 3,465,400 |
| | | | | | | |
| Accounts Payable | 24,300 | 25,000 | | | | 49,300 |
| Other Current Liabilities | 95,000 | 40,000 | | | | 135,000 |
| Capital Stock: | | | | | | |
| Perry Company | 1,000,000 | | | | | 1,000,000 |
| Selby Company | | 400,000 | (5) 400,000 | | | |
| Retained Earnings from above | 2,008,100 | 680,000 | 976,700 | 333,000 | 36,300 | 2,008,100 |
| 1/1 Noncontrolling Interest in Net Assets | | | (4) 1,800 | (5) 250,000 | 236,700 | |
| | | | (6) 7,500 | | | |
| | | | (7) 4,000 | | | |
| 12/31 Noncontrolling Interest in Net Assets | | | | | 273,000 | 273,000 |
| Total liabilities & equity | 3,127,400 | 1,145,000 | 2,168,200 | 2,168,200 | | 3,465,400 |

*Noncontrolling Interest in Consolidated Income = 0.20 × ($260,000 + $9,000- $37,500- $20,000) = $42,300.
Explanations of workpaper entries are on next page.

**Problem 6-18 (continued)**

Computation and Allocation of Difference Schedule

| | Parent Share | Non-Controlling Share | Entire Value |
|---|---|---|---|
| Purchase price and implied value | **$960,000** | **240,000** | 1,200,000 * |
| Less: Book value of equity acquired | 640,000 | 160,000 | **800,000** |
| Difference between implied and book value | 320,000 | 80,000 | **400,000** |
| Inventory ($230,000 - $ 155,000) | (60,000) | (15,000) | (**75,000)** |
| Equipment ($800,000 - $ 600,000) | (160,000) | (40,000) | (**200,000)** |
| Balance | 100,000 | 25,000 | 125,000 |
| Goodwill | (100,000) | (25,000) | (**125,000)** |
| Balance | -0- | -0- | -0- |

*$960,000/.80

**Explanation of workpaper entries**

| | | |
|---|---|---|
| (1) Equity in Subsidiary Income | 153,600* | |
| Dividends Declared ($30,000 × 0.80) | | 24,000 |
| Investment in Selby Company | | 129,600 |

To reverse the effect of parent company entries during the year for subsidiary dividends and income

* [0.80 × ($260,000 + $9,000)] - $15,600 – $16,000 - $30,000 = $153,600

| | | |
|---|---|---|
| (2) Sales | 300,000 | |
| Purchases (Cost of Goods Sold) | | 300,000 |

To eliminate intercompany sale

| | | |
|---|---|---|
| (3) Ending Inventory - Income Statement (CoGS) | 15,600 | |
| Ending Inventory (Balance Sheet) | | 15,600 |

To eliminate unrealized intercompany profit in ending inventory ($78,000 × 0.2).

| | | |
|---|---|---|
| (4) Investment in Selby Company ($9,000 × 0.80) | 7,200 | |
| Noncontrolling Interest ($9,000 × 0.20) | 1,800 | |
| Beginning Inventory –Income Statement (CoGS) | | 9,000 |

To recognize intercompany profit realized during the year and to reduce the controlling and noncontrolling interests for their share of unrealized profit at beginning of year.

| | | |
|---|---|---|
| (5) Beginning Retained Earnings- Selby Company | 450,000 | |
| Common Stock - Selby Company | 400,000 | |
| Difference between Implied and Book Value | 400,000 | |
| Investment in Selby Company<br>[$960,000 + ($450,000 - $400,000) x .80] | | 1,000,000 |
| Noncontrolling Interest [$240,000 + ($450,000 - $400,000) x .20] | | 250,000 |

**Problem 6-18 (continued)**

| | | | |
|---|---|---|---|
| (6) | Beginning Inventory - Income Statement (CoGS) | 37,500 [a] | |
| | Investment in Selby Company ($37,500 x .80) | 30,000 | |
| | Noncontrolling Interest | 7,500 | |
| | Plant and Equipment | 200,000 | |
| | Goodwill | 125,000 | |
| | Difference between Implied and Book Value | | 400,000 |
| | To allocate the difference between implied and book value | | |

[a] $75,000 × (1/2) = $37,500

| | | | |
|---|---|---|---|
| (7) | Other Expenses ($200,000/10) | 20,000 [b] | |
| | Investment in Selby Company ($20,000 x .80) | 16,000 | |
| | Noncontrolling Interest | 4,000 | |
| | Plant and Equipment (2 × $20,000)) | | 40,000 |

Alternative to entries (6) and (7)

| | | | |
|---|---|---|---|
| (6a) | Investment in Selby Company | 46,000 [c] | |
| | Noncontrolling interest | 11,500 [d] | |
| | Beginning Inventory -Income Statement (CoGS) | 37,500 [a] | |
| | Other Expenses | 20,000 [b] | |
| | Plant and Equipment ($200,000 – (2 × $20,000)) | 160,000 | |
| | Goodwill | 125,000 | |
| | Difference between Implied and Book Value | | 400,000 |
| | To allocate, amortize and depreciate the difference between implied and book value | | |

[a] $75,000 × (1/2) = $37,500
[b] ($200,000/10) = $20,000
[c] $30,000 + $16,000 = $46,000
[d] $7,500 + $4,000 = $11,500

| | |
|---|---|
| **Part B** Perry Company's Retained Earnings on 12/31/2011 | $2,008,100 |
| Consolidated Retained Earnings on 12/31/2011 | $2,008,100 |

**Part C** The balances are the same as in Problem 6-14

## Problem 6 – 19A

### Part A

**2011**

| | | | |
|---|---|---|---|
| (1) | Sales | 265,000 | |
| | Purchases (Cost of Goods sold) | | 265,000 |
| | To eliminate intercompany sales | | |
| (2) | Ending Inventory – Income Statement (CoGS) | 30,000 | |
| | 12/31 Inventory (Balance Sheet) | | 30,000 |
| | To eliminate intercompany profit in ending inventory ($150,000 – ($150,000/1.25)) | | |
| (3) | Deferred Tax Asset | 9,000 | |
| | Income Tax Expense | | 9,000 |
| | To defer income tax paid or accrued by the selling affiliate on unrealized intercompany profit in ending inventory (.3 × $30,000) | | |

**2012**

| | | | |
|---|---|---|---|
| (1) | Sales | 475,000 | |
| | Purchases (Cost of Goods Sold) | | 475,000 |
| | To eliminate intercompany sales | | |
| (2) | Beginning Retained Earnings - Pearson Company | 30,000 | |
| | Beginning Inventory – Income Statement (CoGS) | | 30,000 |
| | To recognize intercompany profit realized during the year and to reduce controlling interest for unrealized intercompany profit at beginning of the year. | | |
| (3) | Income Tax Expense | 9,000 | |
| | Beginning Retained Earnings - Pearson Company | | 9,000 |
| | To recognize income tax expense on intercompany profit in beginning inventory considered to be realized during the current year and to adjust beginning consolidated retained earnings for the income tax consequences of unrealized profit at the beginning of the year | | |
| (4) | Ending Inventory – Income Statement (CoGS) | 39,000 | |
| | 12 /31 Inventory (Balance Sheet) | | 39,000 |
| | To eliminate intercompany profit in ending inventory ($195,000 – ($195,000/1.25)) | | |
| (5) | Deferred Tax Asset | 11,700 | |
| | Income Tax Expense | | 11,700 |
| | To defer income tax paid or accrued by the selling affiliate on unrealized intercompany profit in ending inventory (.3 × $39,000) | | |

### Part B

| | 2011 | 2012 |
|---|---|---|
| Reported Subsidiary Income | $225,000 | $275,000 |
| Noncontrolling Interest Ownership | 20% | 20% |
| Noncontrolling Interest in Consolidated Income | $45,000 | $55,000 |

**Problem 6–19A (continued)**

**Part C**

Calculation of Controlling interest in consolidated income
For Year Ended December 31, 2012

| | | |
|---|---|---|
| Pearson Company's net income from independent operations | | $480,000 |
| Less after-tax unrealized intercompany profit on 2012 sales to Sedbrook Company ( .7 × $39,000 ) | | (27,300) |
| Plus after-tax profit on 2011 sales to Sedbrook Company realized in transactions with third parties in 2012 ( .7 × $30,000 ) | | 21,000 |
| Pearson Company's net income from independent operations that has been realized in transactions with third parties | | 473,700 |
| Reported net income of Sedbrook Company | $275,000 | |
| Less after-tax unrealized intercompany profit on 2012 sales to Pearson Company | 0 | |
| Plus after-tax profit on 2011 sales to Sedbrook Company realized in transactions with third parties in 2012 | 0 | |
| Sedbrook Company's net income that has been realized in transactions with third parties | 275,000 | |
| Pearson Company's share | 80% | 220,000 |
| Controlling interest in consolidated income | | $693,700 |

**Problem 6 - 20A**
**Part A**

PECK CORPORATION AND SUBSIDIARY
Consolidated Statements Workpaper
For the Year Ended December 31, 2011

| | Peck | Seacrest | Eliminations | | Noncontrolling | Consolidated |
|---|---|---|---|---|---|---|
| **Income Statement** | Corporation | Company | Dr. | Cr. | Interest | Balances |
| Sales | 1,100,000 | 530,000 | (2) 100,000 | | | 1,530,000 |
| Dividend Income | 7,000 | | (8) 7,000 | | | |
| Total Revenue | 1,107,000 | 530,000 | | | | 1,530,000 |
| Cost of Goods Sold: | | | | | | |
| Beginning Inventory | 150,000 | 110,000 | | (5) 10,000 | | 250,000 |
| Purchases | 850,000 | 350,000 | | (2) 100,000 | | 1,100,000 |
| Cost of Goods Available | 1,000,000 | 460,000 | | | | 1,350,000 |
| Less Ending Inventory | 140,000 | 115,000 | (3) 8,000 | | | 247,000 |
| Cost of Goods Sold: | 860,000 | 345,000 | | | | 1,103,000 |
| Income Tax Expense | 27,000 | 28,250 | (6) 4,000 | (4) 3,200 | | 57,591 |
| | | | (7) 1,901 | | | |
| Other Expenses | 180,000 | 114,000 | | | | 294,000 |
| Total Cost and Expense | 1,067,000 | 487,250 | | | | 1,454,951 |
| Net /Combined Income | 40,000 | 42,750 | | | | 75,049 |
| Noncontrolling Interest in Income | | | | | 13,185 | (13,185)* |
| Net Income to Retained Earnings | 40,000 | 42,750 | 120,901 | 113,200 | 13,185 | 61,864 |
| | | | | | | |
| **Statement Of Retained Earnings** | | | | | | |
| 1/1 Retained Earnings | | | | | | |
| Peck Corporation | 541,000 | | (5) 7,000 | (1) 14,000 | | 550,016 |
| | | | (7) 784 | (6) 2,800 | | |
| Seacrest Company | | 120,000 | (5) 3,000 | (6) 1,200 | 34,200 | |
| | | | (9) 84,000 | | | |
| Net Income from Above | 40,000 | 42,750 | 120,901 | 113,200 | 13,185 | 61,864 |
| Dividends Declared | | | | | | |
| Peck Corporation | (100,000) | | | | | (100,000) |
| Seacrest Company | | (10,000) | | (8) 7,000 | (3,000) | |
| 12/31 Retained Earnings to Balance Sheet | 481,000 | 152,750 | 215,685 | 138,200 | 44,385 | 511,880 |

| **Problem 6 - 20A (continued)** | Peck<br>Corporation | Seacrest<br>Company | Eliminations<br>Dr. | <br>Cr. | Noncontrolling<br>Interest | Consolidated<br>Balances |
|---|---|---|---|---|---|---|
| **Balance Sheet** | | | | | | |
| Cash | 35,000 | 100,000 | | | | 135,000 |
| Accounts Receivable (net) | 211,000 | 107,750 | | | | 318,750 |
| Inventory | 140,000 | 115,000 | | (3) 8,000 | | 247,000 |
| Investment in Seacrest Company | 420,000 | | (1) 14,000 | (9) 434,000 | | |
| Deferred Tax Assets | | | (4) 3,200 | | | 3,200 |
| Other Assets | 500,000 | 400,000 | | | | 900,000 |
| Total Assets | 1,306,000 | 722,750 | | | | 1,603,950 |
| Accounts Payable | 70,000 | 30,000 | | | | 100,000 |
| Other Liabilities | 55,000 | 35,000 | | | | 90,000 |
| Deferred Income Tax Liability | 20,000 | 5,000 | | (7) 2,685 | | 27,685 |
| Capital Stock | | | | | | |
| Peck Corporation | 680,000 | | | | | 680,000 |
| Seacrest Company | | 500,000 | (9) 500,000 | | | |
| Retained Earnings from Above | 481,000 | 152,750 | 215,685 | 138,200 | 44,385 | 511,880 |
| Noncontrolling Interest in | | | | (9) 150,000 | 150,000 | |
| Net Assets | | | | | 194,385 | 194,385 |
| Total Liabilities & Equity | 1,306,000 | 722,750 | 732,885 | 732,885 | | 1,603,950 |

*Noncontrolling interest in consolidated income = .30 × ($42,750 + (0.60 × $10,000) – ( 0.60 × $8,000)) = $13,185

Explanations of workpaper entries are on separate page

**Problem 6 - 20A (Continued)**

Explanations of workpaper entries

| | | | |
|---|---|---|---|
| (1) | Investment in Seacrest Company (.70 × ($120,000 - $100,000)) | 14,000 | |
| | 1/1 Retained Earnings - Peck Co. | | 14,000 |

To establish reciprocity/convert to equity as of 1/1/2011

| | | | |
|---|---|---|---|
| (2) | Sales | 100,000 | |
| | Purchases (Cost of Goods sold) | | 100,000 |

To eliminate intercompany sales.

| | | | |
|---|---|---|---|
| (3) | Ending Inventory - Income Statement (CoGS) | 8,000 | |
| | Ending Inventory (Balance Sheet) | | 8,000 |

To eliminate unrealized intercompany profit in ending inventory ($40,000 – ($40,000/1.25))

| | | | |
|---|---|---|---|
| (4) | Deferred Tax Asset | 3,200 | |
| | Income Tax Expense | | 3,200 |

To defer income tax paid or accrued by the selling affiliate on unrealized intercompany profit in ending inventory (.40 × $8,000)

| | | | |
|---|---|---|---|
| (5) | 1/1 Retained Earnings - Peck Co. (.70 × $10,000) | 7,000 | |
| | 1/1 Retained Earnings - Seacrest Co. (.30 × $10,000) | 3,000 | |
| | Beginning Inventory | | 10,000 |

To recognize income tax expense on intercompany profit in beginning inventory considered to be realized during the current year and to adjust the controlling and the noncontrolling interests for their shares of the income tax consequences of unrealized profit at the beginning of the year

| | | | |
|---|---|---|---|
| (6) | Income Tax Expense (.40 × $10,000) | 4,000 | |
| | 1/1 Retained Earnings - Peck Co. (.70 × $4,000) | | 2,800 |
| | 1/1 Retained Earnings - Seacrest Co. (.30 × $4,000) | | 1,200 |

To recognize income tax expense on intercompany profit in beginning inventory considered to be realized during the current year and to adjust the controlling and the noncontrolling interests for their shares of the income tax consequences of unrealized profit at the beginning of the year

| | | | |
|---|---|---|---|
| (7) | 1/1 Retained Earnings - Peck Co. [1] | 784 | |
| | Income Tax Expense [3] | 1,901 | |
| | Deferred Income Tax Liability[2] | | 2,685 |

To recognize income tax consequences of undistributed subsidiary income

[1] $14,000 × .70 × .20 × .40 = $784

[2] $47,950 × .70 × .20 × .40 = $2,685

[3] $2,685 - $784 = $1,901

**Problem 6 - 20A (Continued)**

| | | |
|---|---|---|
| (8) Dividend Income ($10,000 × .70) | 7,000 | |
| Dividends Declared | | 7,000 |
| To eliminate intercompany dividends | | |
| | | |
| (9) 1/1 Retained Earnings - Seacrest Co. | 84,000 | |
| Common Stock - Seacrest Co. | 350,000 | |
| Investment in Seacrest Co. | | 434,000 |
| To eliminate the investment accounts | | |

Undistributed Income of Seacrest Company That Has Been Included in Consolidated Income

| | From Acquisition To 1/1/11 | For Calendar Year 2011 | From Acquisition to 12/31/11 |
|---|---|---|---|
| Seacrest Company | | | |
| Retained earnings 1/1/2011 | $120,000 | | |
| Retained earnings 12/31/2011 | | | $152,750 |
| Retained earnings date of acquisition | (100,000) | | (100,000) |
| Increase in retained earnings | 20,000 | | 52,750 |
| Net income 2011 | | $ 42,750 | |
| Dividends 2011 | | (10,000) | |
| After-tax unrealized profit on 1/1/2011 (.6 × $10,000) | (6,000) | 6,000 | |
| After-tax unrealized profit on 12/31/2011 (.6 × $8,000) | | (4,800) | (4,800) |
| Undistributed income that has been included in consolidated income | $14,000 | $33,950 | $47,950 |

**Problem 6-20A (continued)**

**Part B**

Calculation of Consolidated Net Income
For year Ended December 31, 2011

| | | |
|---|---|---|
| Peck Corporation's net income from independent operations ($40,000 - $7,000) | | $33,000 |
| Less after-tax unrealized intercompany profit on 2011 sales to Seacrest Company | | 0 |
| Plus after-tax profit on 2010 sales to Seacrest Company realized in transactions with third parties in 2011 | | 0 |
| Peck Corporation's net income from independent operation that has been realized in transaction with third parties | | 33,000 |
| Reported net income of Seacrest Company | $42,750 | |
| Less after-tax unrealized intercompany profit on 2011 sales to Peck Corporation (.6 × $8,000) | (4,800) | |
| Plus after-tax profit on 2010 sales to Peck Corporation realized in transactions with third parties in 2011 (.6 × $10,000) | 6,000 | |
| Seacrest Company's net income that has been realized in transactions with third parties | 43,950 | |
| Peck Corporation's share | 70% | 30,765 |
| Less income tax consequence of undistributed income of Seacrest Company for 2011 that has been included in consolidated income ($33,950 × .70 × .20 × .40) | | (1,901) |
| Less amortization of the difference between cost and book value | | 0 |
| Controlling interest in consolidated income | | $61,864 |

Calculation of Consolidated Retained Earnings
December 31, 2011

| | |
|---|---|
| Peck Corporation’s Retained Earnings on 12/31/2011 | $517,925 |
| Unrealized after-tax profit on downstream sales included therein | 0 |
| Unrealized after-tax profit on upstream sales included therein | (3,360) |
| Less income tax consequence of undistributed income of Seacrest Company that has been included in consolidated income from date of acquisition to 12/31/2011 ($47,950 × .70 × .20 × .40) | (2,685) |
| Less cumulative effect to date of the amortization of the difference between cost and book value | 0 |
| Consolidated Retained Earnings 12/31/2011 | $511,880 |

**Problem 6 - 21A**
**Part A**

PETRA CORPORATION AND SUBSIDIARY
Consolidated Statements Workpaper
For the Year Ended December 31, 2011

| | Petra | Swain | Eliminations | | Noncontrolling | Consolidated |
|---|---|---|---|---|---|---|
| | Corporation | Company | Dr. | Cr. | Interest | Balances |
| **Income Statement** | | | | | | |
| Sales | 1,100,000 | 530,000 | (2) 100,000 | | | 1,530,000 |
| Equity in Subsidiary Income | 29,925 | | (1) 29,925 | | | |
| Total Revenue | 1,129,925 | 530,000 | | | | 1,530,000 |
| Cost of Goods Sold: | | | | | | |
| Beginning Inventory | 150,000 | 110,000 | | (5) 10,000 | | 250,000 |
| Purchases | 850,000 | 350,000 | | (2) 100,000 | | 1,100,000 |
| Cost of Goods Available | 1,000,000 | 460,000 | | | | 1,350,000 |
| Less Ending Inventory | 140,000 | 115,000 | (3) 8,000 | | | 247,000 |
| Cost of Goods Sold: | 860,000 | 345,000 | | | | 1,103,000 |
| Income Tax Expense | 27,000 | 28,250 | (6) 4,000 | (4) 3,200 | | 57,591 |
| | | | (7) 1,901 | | | |
| Other Expenses | 180,000 | 114,000 | | | | 294,000 |
| Total Cost and Expense | 1,067,000 | 487,250 | | | | 1,454,951 |
| Net /Consolidated Income | 62,925 | 42,750 | | | | 75,049 |
| Noncontrolling Interest in Income | | | | | 13,185 | (13,185)* |
| Net Income to Retained Earnings | 62,925 | 42,750 | 143,826 | 113,200 | 13,185 | 61,864 |
| **Statement Of Retained Earnings** | | | | | | |
| 1/1 Retained Earnings: | | | | | | |
| Petra Corporation | 555,000 | | (5) 7,000 | | | 550,016 |
| | | | (7) 784 | (6) 2,800 | | |
| Swain Company | | 120,000 | (5) 3,000 | (6) 1,200 | 34,200 | |
| | | | (8) 84,000 | | | |
| Net Income from Above | 62,925 | 42,750 | 143,826 | 113,200 | 13,185 | 61,864 |
| Dividends Declared: | | | | | | |
| Petra Corporation | (100,000) | | | | | (100,000) |
| Swain Company | | (100,000) | | (1) 7,000 | (3,000) | |
| 12/31/ Retained Earnings to Balance Sheet | 517,925 | 152,750 | 238,610 | 124,200 | 44,385 | 511,880 |

| **Problem 6 – 21A (continued)** | Petra | Swain | Eliminations | | Noncontrolling | Consolidated |
|---|---|---|---|---|---|---|
| | Corporation | Company | Dr. | Cr. | Interest | Balances |
| **Balance Sheet** | | | | | | |
| Cash | 35,000 | 100,000 | | | | 135,000 |
| Accounts Receivable (net) | 211,000 | 107,750 | | | | 318,750 |
| Inventory | 140,000 | 115,000 | | (3) 8,000 | | 247,000 |
| Investment in Swain Company | 456,925 | | | (1) 22,925 | | |
| | | | | (8) 434,000 | | |
| Deferred tax asset | | | (4) 3,200 | | | 3,200 |
| Other Assets | 500,000 | 400,000 | | | | 900,000 |
| Total Assets | 1,342,925 | 722,750 | | | | 1,603,950 |
| Accounts Payable | 70,000 | 30,000 | | | | 100,000 |
| Other Liabilities | 55,000 | 35,000 | | | | 90,000 |
| Deferred Income Tax Liability | 20,000 | 5,000 | | (7) 2,685 | | 27,685 |
| Capital Stock | | | | | | |
| Petra Corporation | 680,000 | | | | | 680,000 |
| Swain Company | | 500,000 | (8) 500,000 | | | |
| Retained Earnings from Above | 517,925 | 152,750 | 238,610 | 124,200 | 44,385 | 511,880 |
| Noncontrolling Interest in | | | | (8) 150,000 | 150,000 | |
| Net Assets | | | | | 194,385 | 194,385 |
| Total Liabilities & Equity | 1,342,925 | 722,750 | 741,810 | 741,810 | | 1,603,950 |

*Noncontrolling interest in consolidated income = .30 × ($42,750 + (.60 × $10,000) – (.60 × $8,000) = $13,185

Explanation of workpaper entries on separate page

**Problem 6 – 21A (continued)**

Explanations of workpaper entries

| | | | |
|---|---|---|---|
| (1) | Equity in Subsidiary Income | 29,925 | |
| | Dividends Declared | | 7,000 |
| | Investment in Swain Company | | 22,925 |
| | To reverse the effect of parent company entries during the year for subsidiary dividends and income | | |
| (2) | Sales | 100,000 | |
| | Purchases (Cost of Goods sold) | | 100,000 |
| | To eliminate intercompany sales | | |
| (3) | Ending Inventory – Income Statement (CoGS) | 8,000 | |
| | Ending Inventory (Balance Sheet) | | 8,000 |
| | To eliminate unrealized intercompany profit in ending inventory ($40,000 – ($40,000/1.25)) | | |
| (4) | Deferred Tax Asset | 3,200 | |
| | Income Tax Expense | | 3,200 |
| | To defer income tax paid or accrued by the selling affiliate on unrealized intercompany profit in ending inventory (.40 × $8,000) | | |
| (5) | 1/1 Retained Earnings – Petra Co. | 7,000 | |
| | 1/1 Retained Earnings – Swain Co. | 3,000 | |
| | Beginning Inventory | | 10,000 |
| | To recognize intercompany profit realized during the year and to reduce the controlling and controlling interests for their share of unrealized intercompany profit at the beginning of the year | | |
| (6) | Income Tax Expense (.40 × $10,000) | 4,000 | |
| | 1/1 Retained Earnings – Petra Co. | | 2,800 |
| | 1/1 Retained Earnings – Swain Co. | | 1,200 |
| | To recognize income tax expense on intercompany profit in beginning inventory considered to be realized during the current year and to adjust the controlling and the noncontrolling interests for their shares of the income tax consequences of unrealized profit at the beginning of the year | | |
| (7) | 1/1 Retained Earnings – Petra Co. [1] | 784 | |
| | Income Tax Expense [3] | 1,901 | |
| | Deferred Income Tax Liability [2] | | 2,685 |
| | To recognize income tax consequences of undistributed subsidiary income | | |

[1] $14,000 × .70 × .20 × .40 = $784

[2] $47,950 × .70 × .20 × .40 = $2,685

[3] $2,685 – $784 = $1,901

**Problem 6 – 21A (continued)**

| | | |
|---|---|---|
| (8) 1/1 Retained Earnings – Swain Co. | 84,000 | |
| Common Stock – Swain Co. | 350,000 | |
| Investment in Swain Co. | | 434,000 |
| To eliminate the investment accounts | | |

Undistributed Income of Swain Company That Has Been Included in Consolidated Income

| Swain Company | From Acquisition to 1/1/2011 | For Calendar Year 2011 | From Acquisition to 12/31/2011 |
|---|---|---|---|
| Retained earnings 1/1/2011 | $120,000 | | |
| Retained earnings 12/31/2011 | | | $152,750 |
| Retained earnings date of acquisition | (100,000) | | (100,000) |
| Increase in retained earnings | 20,000 | | 52,750 |
| Net income 2011 | | $42,750 | |
| Dividends 2011 | | (10,000) | |
| After-tax unrealized profit on 1/1/2011 (.6 × $10,000) | (6,000) | 6,000 | |
| After-tax unrealized profit on 12/31/2011 (.6 × $8,000) | | (4,800) | (4,800) |
| Undistributed income that has been included in consolidated income | $14,000 | $33,950 | $47,950 |

**Part B**

Calculation of Consolidated Net Income
For year Ended December 31, 2011

| | | |
|---|---|---|
| Petra Corporation's net income from independent operations ($40,000 - $7,000) | | $33,000 |
| Less after-tax unrealized intercompany profit on 2011 sales to Swain Company | | 0 |
| Plus after-tax profit on 2010 sales to Swain Company realized in transactions with third parties in 2011 | | 0 |
| Petra Corporation's net income from independent operation that has been realized in transaction with third parties | | 33,000 |
| Reported net income of Swain Company | $42,750 | |
| Less after-tax unrealized intercompany profit on 2011 sales to Petra Corporation (.6 × $8,000) | (4,800) | |
| Plus after-tax profit on 2010 sales to Petra Corporation realized in transactions with third parties in 2011 (.6 × $10,000) | 6,000 | |
| Swain Company's net income that has been realized in transactions with third parties | 43,950 | |
| Petra Corporation's share (.70 × $43,950) | 70% | 30,765 |
| Less income tax consequence of undistributed income of Swain Company for 2011 that has been included in consolidated income ($33,950 × .70 × .20 × .40) | | (1,901) |
| Less amortization of the difference between cost and book value | | 0 |
| Controlling interest in consolidated income | | $61,864 |

**Problem 6-21A (Continued)**

Calculation of Consolidated Retained Earnings
December 31, 2011

| | | |
|---|---|---|
| Petra Corporation’s Retained Earnings on 12/31/2011 | | $481,000 |
| Less after-tax amount of Petra Corporation's retained earnings that have not been realized in transactions with third parties | | 0 |
| Petra Corporation’s retained earnings that have been realized in transactions with third parties | | 481,000 |
| Increase in retained earnings of Swain Company from date of acquisition to 12/31/2011 ($152,700 - $100,000) | $52,750 | |
| Less after-tax unrealized profit included in Swain Company's retained earnings on 12/31/2011 (.6 × $8,000) | (4,800) | |
| Increase in reported retained earnings of Swain Company since acquisition that has been realized in transactions with third parties | 47,950 | |
| Petra Corporation's share | 70% | 33,565 |
| Less income tax consequence of undistributed income of Swain Company that has been included in consolidated income from date of acquisition to 12/31/2011 ($47,950 × .70 × .20 × .40) | | (2,685) |
| Less cumulative amortization of the difference between cost and book value to 12/31/2011 | | 0 |
| Consolidated Retained Earnings 12/31/2011 | | $511,880 |

# CHAPTER 7

**Note: The letter A indicated for a question, exercise, or problem means that the question, exercise, or problem relates to a chapter appendix.**

## ANSWERS TO QUESTIONS

1. Intercompany profit in depreciable asset transfers is realized as a result of the utilization of the asset in the generation of revenue. Such utilization is measured by depreciation and, accordingly, the recognition of the realization of intercompany profit is accomplished through depreciation adjustments in the periods following the intercompany transfers.

   When intercompany sales involve nondepreciable assets, any profit recognized by the selling affiliate will remain unrealized from the consolidated entity's point of view for all subsequent periods or until the asset is disposed of.

2. Intercompany profit may be included in the selling affiliate's carrying value of an asset that is sold to third parties. If the sales price in the sale to the third party is less that the inflated carrying value, the selling affiliate will recognize a loss on the sale. From the point of view of the consolidated entity, however, the carrying value of the asset is its cost to the affiliated group (selling affiliate's cost less unrealized intercompany profit) and if this value is less than the selling price to the third party, the consolidated group will recognize a gain. In effect, previously unrecognized intercompany profit is realized upon the sale of the asset to a third party.

3. The only procedural difference in the workpaper entries relating to the elimination of unrealized intercompany profit in depreciable or nondepreciable assets when the selling affiliate is a less than wholly owned subsidiary is that the noncontrolling interest in the unrealized intercompany profit at the beginning of the year must be recognized by debiting or crediting the noncontrolling shareholders' percentage interest in such adjustments to the beginning retained earnings of the subsidiary.

4. Consolidated income is equal to the parent company's income from its independent operations that has been realized in transactions with third parties plus subsidiary income that has been realized in transactions with third parties and adjusted for the amortization, depreciation, or impairment of the differences between implied and book values (this total is then allocated to the controlling and noncontrolling interests). The controlling interest in consolidated income is equal to the parent company's income from its independent operations that has been realized in transactions with third parties plus *its share of* subsidiary income that has been realized in transactions with third parties and adjusted for the amortization, depreciation, or impairment of the differences between implied and book values.

Controlling Interest in Consolidated Income

| | |
|---|---|
| Unrealized gain on intercompany sale (downstream sales) | Net income internally generated by P Company |
| | Gain realized through usage (depreciation adjustment) |
| Unrealized profit on downstream sales to S Company (ending Inventory) | Realized profit (downstream sales) from beginning inventory |
| | P Company's percentage of S Company's adjusted income realized from third parties |
| | Controlling interest in Consolidated Income |

5. It is important to distinguish between upstream and downstream sales of property and equipment because calculation of the noncontrolling interest in the consolidated financial statements differs depending on whether the sale giving rise to the intercompany profit is upstream or downstream.

6. Profit relating to the intercompany sale of property and equipment is recognized in the consolidated financial statements over the useful life of the equipment. It is recognized in the consolidated financial statements by reducing depreciation expense (thus increasing consolidated income).

7. Consolidated retained earnings may be defined as the parent company's cost basis retained earnings that has been realized in transactions with third parties plus (minus) the parent company's share of the increase (decrease) in subsidiary retained earnings that has been realized in transactions with third parties from the date of acquisition to the current date and adjusted for the cumulative effect of amortization of the difference between implied and book values.

## ANSWERS TO BUSINESS ETHICS CASE

1. The arguments against expensing options include the following:
    - Valuation is subjective, involves assumptions that may be unrealistic, and may yield numbers that time will prove to be of limited usefulness.
    - Disclosure is a reasonable substitute.
    - Companies may alter their reward systems with the result that lower level employees are most affected.
    - Options are not a "real" expense and may never be exercised.
    - Option valuation opens the door for manipulation as managers can alter their assumptions.
    - Diluted earnings per share are already disclosed, and expensing options amounts to double counting.
    - Expensing may destroy any advantage held by the U.S. as a world leader in technology, and distract corporate America from more important issues related to executive compensation and governance in general.

    The arguments in favor of expensing options include the following:
    - Difficulty or subjectivity in valuation is not a reason for avoidance of recording other relevant financial statement items, such as deferred taxes, pension liabilities, etc.
    - Transparency is a major objective of financial reporting, and without proper expensing of executive compensation, transparency is lacking.
    - Not expensing options generates costs of misinformation.
    - If employees are over-compensated, the users need to be aware of that fact.
    - When options qualify as a "real" expense, as defined in the conceptual framework, based on the best available information at the balance sheet date, they should be reflected as such in the financial statements.

2. Ideally the CEO or CFO should not be a past employee of the company's audit firm, as such a relationship could jeopardize his or her independence. However, it is not unusual for a company to hire a former auditor, who might later be promoted to CEO or CFO, or might even be hired to such a position. If this happens, the company might want to consider switching auditors or taking other measures to make sure that the audit firm is viewed as sufficiently independent. Under the Sarbanes-Oxley Act of 2002 mandates that the audit firm's independence is impaired if a former member of the audit engagement team accepts a supervisory accounting position, unless the individual observes a one-year 'cooling off' period.

3. The Sarbanes-Oxley Act of 2002 mandates that each member of the audit committee be a outside member of the board of directors of the issuer and to be independent. Independent means not receiving any consulting, advisory, or other compensatory fee from the issuer. At least one member must be a financial expert. The audit committee is responsible for appointment, compensation, retention, and oversight of the independent auditors.

# ANSWERS TO EXERCISES

## Exercise 7-1

### 2011

| | |
|---|---|
| Income of Paradise Company realized in transactions with third parties | $550,000 |
| Paradise Company's share of income of Sherwood Company realized in transactions with third parties 0.8 × ($300,000 - $240,000 + $30,000) | 72,000 |
| Controlling interest in consolidated net income | $622,000 |

$840,000 - $600,000 = $240,000

$$\frac{\$240,000}{8} = \$30,000$$

### 2012

| | |
|---|---|
| Income of Paradise Company realized in transactions with third parties | $550,000 |
| Paradise Company's share of income of Sherwood Company realized in transactions with third parties 0.8 × ($300,000 + $30,000) | 264,000 |
| Controlling interest in consolidated net income | $814,000 |

## Exercise 7-2

### 2011

| | |
|---|---|
| Income of Polar Company realized in transitions with third parties ($400,000 - $160,000 + $20,000) | $260,000 |
| Polar Company' share of income of Superior Company realized in transactions with third parties (.8 × $200,000) | 160,000 |
| Controlling interest in consolidated net income | $420,000 |

$560,000 - $400,000 = $160,000

$160,000/8= $20,000

### 2012

| | |
|---|---|
| Income of Polar Company realized in transactions with third parties ($400,000 + $20,000) | $420,000 |
| Polar Company's share of income of Superior Company realized in transactions with third parties (.8 × $200,000) | 160,000 |
| Controlling interest in consolidated net income | $580,000 |

## Exercise 7-3

| | |
|---|---|
| Cost of equipment | $ 300,000 |
| Accumulated Depreciation ($300,000 × .10 × 5 years) | 150,000 |
| Book value 1/1 2011 | 150,000 |
| Proceeds from sale | 200,000 |
| Gain on sale | $ 50,000 |

**Exercise 7-3 (continued)**

**Part A 2011**

| | | |
|---|---|---|
| (1) Equipment ($300,000 - $200,000) | 100,000 | |
| Gain on Sale of Equipment | 50,000 | |
| Accumulated Depreciation($300,000)(5/10) | | 150,000 |
| (2) Accumulated Depreciation – Equipment | 10,000 | |
| Depreciation Expense ($50,000/5) | | 10,000 |

**2012**

| | | |
|---|---|---|
| (1) Equipment | 100,000 | |
| Beginning Retained Earnings – Pearson (.9 × $50,000) | 45,000 | |
| Noncontrolling Interest (.1 × $50,000) | 5,000 | |
| Accumulated Depreciation – Equipment | | 150,000 |
| (2) Accumulated Depreciation – Equipment | 20,000 | |
| Depreciation Expense | | 10,000 |
| Beginning Retained Earnings – Pearson (.9 × $10,000) | | 9,000 |
| Noncontrolling Interest (.10 × $10,000) | | 1,000 |

**Part B** Controlling interest in Consolidated Net Income for 2012 = $150,000 + .9($100,000 + $10,000) = $249,000

**Exercise 7-4**

**Part A 2011**

| | | |
|---|---|---|
| Land | 350,000 | |
| Cash | | 350,000 |

**2012**

None. No further entries are recorded on the books of Procter Company unless and until the land is sold to outsiders.

**Part B** (1) **2011**

| | | |
|---|---|---|
| Gain on Sale of Land | 150,000 | |
| Land ($350,000 - $200,000) | | 150,000 |

(2) **2012**

Cost Method and Partial Equity Method

| | | |
|---|---|---|
| Beginning Retained Earnings – Procter Company (.9 × $150,000) | 135,000 | |
| Noncontrolling Interest (.10 × $150,000) | 15,000 | |
| Land | | 150,000 |

Complete Equity Method

| | | |
|---|---|---|
| Investment in Silex Company (.9 × $150,000) | 135,000 | |
| Noncontrolling Interest (.10 × $150,000) | 15,000 | |
| Land | | 150,000 |

## Exercise 7-5

Cost Method and Partial Equity Method

| | | | |
|---|---|---|---|
| **Part A** | Upstream Sale | | |
| | Beginning Retained Earnings – Patterson Co. (.8 × $300,000) | 240,000 | |
| | Noncontrolling Interest (.2 × $300,000) | 60,000 | |
| | Land ($800,000 - $500,000) | | 300,000 |
| **Part B** | Downstream Sale | | |
| | Beginning Retained Earnings – Patterson Co. | 300,000 | |
| | Land | | 300,000 |

Complete Equity Method

| | | | |
|---|---|---|---|
| **Part A** | Upstream Sale | | |
| | Investment in Stevens Co. (.8 × $300,000) | 240,000 | |
| | Noncontrolling Interest (.2 × $300,000) | 60,000 | |
| | Land ($800,000 - $500,000) | | 300,000 |
| **Part B** | Downstream Sale | | |
| | Investment in Stevens Co. | 300,000 | |
| | Land | | 300,000 |

## Exercise 7-6

**Part A** $700,000 - $600,000 = $100,000

**Part B** $700,000 - $400,000 = $300,000

| | | | |
|---|---|---|---|
| **Part C** | Cost Method and Partial Equity Method | | |
| | Beginning Retained Earnings – P Company (.9 × $200,000) | 180,000 | |
| | Noncontrolling Interest (.1 × $200,000) | 20,000 | |
| | Gain on Sale of Equipment ($300,000 - $100,000) | | 200,000 |
| | Complete Equity Method | | |
| | Investment in S Company (.9 × $200,000) | 180,000 | |
| | Noncontrolling Interest (.1 × $200,000) | 20,000 | |
| | Gain on Sale of Equipment ($300,000 - $100,000) | | 200,000 |

## Exercise 7-7

| | | | | |
|---|---|---|---|---|
| **Part A** | (1) | Sales | 100,000 | |
| | | Cost of Sales (Purchases) | | 100,000 |
| | (2) | Accounts Payable | 17,500 | |
| | | Accounts Receivable | | 17,500 |
| | (3) | Cost of Sales (beginning inventory – income statement) | 4,000 | |
| | | Inventory ($20,000 – ($20,000/1.25)) | | 4,000 |
| | (4) | Beginning Retained Earnings – Price ($25,000 – ($25,000/1.25) | 5,000 | |

| | | |
|---|---|---|
| Cost of Sales (beginning inventory – income statement) | | 5,000 |

**Exercise 7-7 (continued)**

| | | |
|---|---|---|
| (5) Beginning Retained Earnings – Price ($5,500 × .8) | 4,400 | |
| Noncontrolling Interest ($5,500 × .2) | 1,100 | |
| Property Plant and Equipment | | 5,500 |
| (6) Accumulated Depreciation | 2,200 | |
| Depreciation Expense ($5,500/5) | | 1,100 |
| Beginning Retained Earnings – Price ($1,100 × .8) | | 880 |
| Noncontrolling Interest ($1,100 × .2) | | 220 |

**Part B** Noncontrolling Interest in Consolidated Income .2 × ($40,000 + $1,100) = $8,220

**Exercise 7-8**

| | |
|---|---|
| P Company's income realized in transactions with third parties ($300,000 - $40,000 + $10,000) | $270,000 |
| P Company's share of income of S Company realized in transactions with third parties (.9 × ($120,000 - $15,000)) | 94,500 |
| Controlling interest in consolidated net income | $364,500 |

$\$120,000 - \$80,000 = \$40,000$

$\frac{\$40,000}{4} = \$10,000$

$\$225,000 \times (1/3) = \$75,000$

$\$75,000 - \frac{\$75,000}{1.25} = \$15,000$

**Exercise 7-9**

| | | |
|---|---|---|
| Sales | 390,000 | |
| Cost of Goods Sold ($390,000/1.3) | | 300,000 |
| Selling Expense ($260,000 – ($260,000/1.3)) | | 60,000 |
| Administrative Expense ($130,000 – ($130,000/1.3)) | | 30,000 |

**Exercise 7-10**

| | | | |
|---|---|---|---|
| **2010** | Architectural Fees | 700,000 | |
| | Salary Expense | | 400,000 |
| | Other Expense | | 150,000 |
| | Building | | 150,000 |
| **2011** | Beginning Retained Earnings – Pier One | 150,000 | |
| | Building | | 150,000 |
| | Accumulated Depreciation ($150,000/30) | 5,000 | |

| | | | |
|---|---|---|---|
| | Depreciation Expense | | 5,000 |

**Exercise 7-10 (continued)**

| | | | |
|---|---|---|---|
| **2012** | Beginning Retained Earnings – Pier One | 145,000 | |
| | Accumulated Depreciation | 5,000 | |
| | Building | | 150,000 |
| | | | |
| | Accumulated Depreciation | 5,000 | |
| | Depreciation Expense | | 5,000 |

**Exercise 7-11**

**Part A** **2011**

| | | | |
|---|---|---|---|
| **(**1) | Sales | 400,000 | |
| | Equipment | | 90,000 |
| | Cost of Sales | | 310,000 |
| | | | |
| | Accumulated Depreciation (($90,000/9) | 10,000 | |
| | Depreciation Expense | | 10,000 |

**2012**

| | | | |
|---|---|---|---|
| (2) | Cost Method or Partial Equity Method | | |
| | Beginning Retained Earnings – Pinta Co. | 90,000 | |
| | Equipment | | 90,000 |
| | | | |
| | Accumulated Depreciation | 20,000 | |
| | Depreciation Expense | | 10,000 |
| | Beginning Retained Earnings – Pinta Co. | | 10,000 |
| | | | |
| | Complete Equity Method | | |
| | Investment in Standard Co. | 90,000 | |
| | Equipment | | 90,000 |
| | | | |
| | Accumulated Depreciation | 20,000 | |
| | Depreciation Expense | | 10,000 |
| | Investment in Standard Co. | | 10,000 |

**Part B** Calculation of Controlling interest in Consolidated Net Income For Year Ended Dec. 31, 2011

| | | |
|---|---|---|
| Pinta Company's net income from operations | | $700,000 |
| Less unrealized profit on 2011 sales of equipment to Standard Company | | (90,000) |
| Plus profit on sales of equipment to Standard Company realized through depreciation in 2011 | | 10,000 |
| Pinta Company's income from its independent operations that has been realized in transactions with third parties | | 620,000 |
| Income of Standard Company that has been realized in transactions with third parties | $250,000 | |
| Pinta Company's share | 80% | 200,000 |

| | |
|---|---|
| Controlling Interest in Consolidated Net Income – 2011 | $820,000 |

**Exercise 7-12**

| | Book Value | Remaining life | Excess Depreciation |
|---|---|---|---|
| Original Cost | $ 600,000 | 3 yr | $ 200,000 |
| After Purchase (Sale) | 780,000 | 3 yr | 260,000 |
| Adjustments | $ 180,000 | | $ 60,000 |

**2011**

| | | |
|---|---|---|
| Gain on Sale of Equipment | 180,000 | |
| Equipment (net) | | 180,000 |
| Accumulated Depreciation | 60,000 | |
| Depreciation Expense | | 60,000 |

**2012**

| | | |
|---|---|---|
| Beginning Retained Earnings – Pomeroy (.9 × $180,000) | 162,000 | |
| Noncontrolling Interest (.1 × $180,000) | 18,000 | |
| Equipment | | 180,000 |
| Accumulated Depreciation | 120,000 | |
| Depreciation Expense | | 60,000 |
| Beginning Retained Earnings – Pomeroy (.9 × $60,000) | | 54,000 |
| Noncontrolling Interest (.1 × $60,000) | | 6,000 |

**ANSWERS TO PROBLEMS**

## Problem 7-1

Intercompany sale of equipment

| | Cost | Accumulated Depreciation | Carrying Value | Remaining Life | Depreciation |
|---|---|---|---|---|---|
| Original Cost | $780,000 | $400,000 | $380,000 | 4 yr | $ 95,000 |
| Intercompany Selling Price | 500,000 | _______ | 500,000 | 4 yr | 125,000 |
| Difference | $280,000 | $400,000 | $120,000 | | $ 30,000 |

**Part A** **2011**

| | | | |
|---|---|---|---|
| (1) | Equipment | 280,000 | |
| | Gain on Sale of Equipment ($500,000 - $380,000) | 120,000 | |
| | Accumulated Depreciation - Equipment | | 400,000 |
| (2) | Accumulated Depreciation - Equipment | 15,000 | |
| | Depreciation Expense ($120,000/4)(1/2) | | 15,000 |

**2012**

| | | | |
|---|---|---|---|
| (1) | Equipment (to original cost) | 280,000 | |
| | Beginning Retained Earnings - Powell Co. ($120,000 × .8) | 96,000 | |
| | Noncontrolling Interest ($120,000 × .2) | 24,000 | |
| | Accumulated Depreciation - Equipment | | 400,000 |
| (2) | Accumulated Depreciation - Equipment | 45,000 | |
| | Depreciation Expense ($120,000/4) | | 30,000 |
| | Beginning Retained Earnings - Powell Co. ($15,000 × .8) | | 12,000 |
| | Noncontrolling Interest ($15,000 × .2) | | 3,000 |

| | | |
|---|---|---|
| **Part B** | Consolidated Income = $300,000 + $200,000 + $30,000 | $ 530,000 |
| | Noncontrolling Interest in Consolidated Income = .20 × ($200,000 + $30,000) | (46,000) |
| | Controlling Interest in Consolidated Net Income<br>= $300,000 + [.8 × ($200,000 + $30,000)] | $ 484,000 |

## Problem 7-2

Intercompany Sale of Equipment

| | Cost | Accumulated Depreciation | Carrying Value | Remaining Life | Depreciation |
|---|---|---|---|---|---|
| Original Cost | $ 260,000 | - 0 - | $ 260,000 | 6 yr | $ 43,333 |
| Intercompany Selling Price | 350,000 | _______ | 350,000 | 6 yr | 58,333 |
| Difference | $ 90,000 | | $ 90,000 | | $ 15,000 |

**Problem 7-2(continued)**

**Part A** **2011**

| | | | |
|---|---|---|---|
| (1) | Sales | 350,000 | |
| | Cost of Goods Sold | | 260,000 |
| | Equipment | | 90,000 |
| (2) | Accumulated Depreciation | 15,000 | |
| | Depreciation Expense ($90,000/6) | | 15,000 |

**2012**

| | | | |
|---|---|---|---|
| (1) | Beginning Retained Earnings - Pico | 90,000 | |
| | Equipment | | 90,000 |
| (2) | Accumulated Depreciation | 30,000 | |
| | Depreciation Expense | | 15,000 |
| | Beginning Retained Earnings - Pico | | 15,000 |

**Part B**

| | |
|---|---|
| Pico Company's reported net income | $ 600,000 |
| Less unrealized intercompany profit on 1/1/11 sales of equipment to Seward Company | (90,000) |
| Plus Profit on 1/1/11 sale realized through depreciation | 15,000 |
| Pico Company's reported net income from independent operations that has been realized in transactions with third parties | 525,000 |
| Plus Pico Company's share of Seward's reported net income (.90 × $200,000) | 180,000 |
| Controlling Interest in Consolidated Net Income | $ 705,000 |

**Problem 7-3**

Intercompany sale of equipment

| | Cost | Accumulated Depreciation | Carrying Value | Remaining Life | Depreciation |
|---|---|---|---|---|---|
| Original Cost | $450,000 | - 0 - | $450,000 | 6 yr | $ 75,000 |
| Intercompany Selling Price | 600,000 | | 600,000 | 6 yr | 100,000 |
| Difference | $150,000 | | $150,000 | | $ 25,000 |

**Part A** **P Company's Books**

**2011**

| | | | |
|---|---|---|---|
| (1) | Equipment | 600,000 | |
| | Cash | | 600,000 |
| (2) | Depreciation Expense - Equipment | 100,000 | |
| | Accumulated Depreciation | | 100,000 |

**2012**

| | | |
|---|---|---|
| Cash | 550,000 | |
| Accumulated Depreciation ($600,000/6) | 100,000 | |
| Equipment | | 600,000 |
| Gain on Sale of Equipment | | 50,000 |

**Problem 7-3 (continued)**

| **Part B** | P Company | Consolidated |
|---|---|---|
| Cost | $600,000 | |
| Accumulated Depreciation | (100,000) | |
| 1/1/2012 Book Value | 500,000 | $ 375,000* |
| Proceeds | 550,000 | 550,000 |
| Gain | $50,000 | $ 175,000 |

*$450,000 - $\frac{1}{6}$ ($450,000) = $375,000

Cost Method or Partial Equity Method

| | | |
|---|---|---|
| Beginning Retained Earnings - P Company (.8 × $125,000) | 100,000 | |
| Noncontrolling Interest (.2 × $125,000) | 25,000 | |
| Gain on Sale of Equipment ($175,000 - $50,000) | | 125,000 |

Complete Equity Method

| | | |
|---|---|---|
| Investment in S Company (.8 × $125,000) | 100,000 | |
| Noncontrolling Interest (.2 × $125,000) | 25,000 | |
| Gain on Sale of Equipment ($175,000 - $50,000) | | 125,000 |

**Problem 7-4**
**Part A**

PROUT COMPANY AND SUBSIDIARY
Consolidated Statements Workpaper
For the Year Ended December 31, 2012

| | Prout Company | Sexton Company | Eliminations Debit | Eliminations Credit | Noncontrolling Interest | Consolidated Balances |
|---|---|---|---|---|---|---|
| **INCOME STATEMENT** | | | | | | |
| Sales | 1,475,000 | 1,110,000 | | | | 2,585,000 |
| Dividend Income | 80,000 | | (4) 80,000 | | | |
| Total Revenue | 1,555,000 | 1,110,000 | | | | 2,585,000 |
| Cost of Goods Sold: | 942,000 | 795,000 | | | | 1,737,000 |
| Income Tax Expense | 187,200 | 90,000 | | | | 277,200 |
| Other Expenses | 145,000 | 90,000 | | (3) 8,000 | | 227,000 |
| Total Cost & Expenses | 1,274,200 | 975,000 | | | | 2,241,200 |
| Net /Consolidated Income | 280,800 | 135,000 | | | | 343,800 |
| Noncontrolling Interest Income | | | | | 27,000* | (27,000) |
| Net Income to Retained Earnings | 280,800 | 135,000 | 80,000 | 8,000 | 27,000 | 316,800 |
| **STATEMENT OF RETAINED EARNINGS** | | | | | | |
| 1/1 Retained Earnings | | | | | | |
| Prout Company | 1,300,000 | | (2) 120,000 | (1) 192,000 | | 1,380,000 |
| | | | | (3) 8,000 | | |
| Sexton Company | | 1,040,000 | (5) 1,040,000 | | | |
| Net Income from above | 280,800 | 135,000 | 80,000 | 8,000 | 27,000 | 316,800 |
| Dividends Declared | | | | | | |
| Prout Company | (120,000) | | | | | (120,000) |
| Sexton Company | | (100,000) | | (4) 80,000 | (20,000) | |
| 12/31 Retained Earnings to Balance Sheet | 1,460,800 | 1,075,000 | 1,240,000 | 288,000 | 7,000 | 1,576,800 |

*Noncontrolling interest in consolidated income = .20 × $135,000 = $27,000
Explanations of workpaper entries are on next page

**Problem 7-4 (continued)**

| | Prout Company | Sexton Company | Eliminations Debit | Eliminations Credit | Noncontrolling Interest | Consolidated Balances |
|---|---|---|---|---|---|---|
| **BALANCE SHEET** | | | | | | |
| Current Assets | 568,000 | 271,000 | | | | 839,000 |
| Investment in Sexton Company | 1,600,000 | | (1) 192,000 | (5) 1,792,000 | | |
| Fixed Assets | 1,972,000 | 830,000 | (2) 40,000 | | | 2,842,000 |
| Accumulated Depreciation | (375,000) | (290,000) | (3) 16,000 | (2) 160,000 | | (809,000) |
| Other Assets | 1,000,800 | 1,600,000 | | | | 2,600,800 |
| Total Assets | 4,765,800 | 2,411,000 | | | | 5,472,800 |
| | | | | | | |
| Other Liabilities | 305,000 | 136,000 | | | | 441,000 |
| Capital Stock | | | | | | |
| Prout Company | 3,000,000 | | | | | 3,000,000 |
| Sexton Company | | 1,200,000 | (5) 1,200,000 | | | |
| Retained Earnings from above | 1,460,800 | 1,075,000 | 1,240,000 | 288,000 | 7,000 | 1,576,800 |
| Noncontrolling Interest in Net Assets | | | | (5) 448,000 | 448,000 | |
| | | | | | 455,000 | 455,000 |
| Total Liabilities & Equity | 4,765,800 | 2,411,000 | 2,688,000 | 2,688,000 | | 5,472,800 |

**Problem 7-4 (continued)**

Intercompany Sale of Equipment

|  | Cost | Accumulated Depreciation | Carrying Value | Remaining Life | Depreciation |
|---|---|---|---|---|---|
| Original Cost | $400,000 | $160,000 | $240,000 | 15 yr | $16,000 |
| Intercompany Selling Price | 360,000 |  | 360,000 | 15 yr | 24,000 |
| Difference | $ 40,000 | $160,000 | $120,000 |  | $ 8,000 |

Explanation to workpaper entries (not required)

|  |  |  |
|---|---|---|
| (1) Investment in Sexton Company | 192,000 |  |
| Retained Earnings - Prout |  | 192,000 |

To establish reciprocity/convert to equity (.80 × ($1,040,000 - $800,000))

|  |  |  |
|---|---|---|
| (2) Equipment | 40,000 |  |
| Beginning Retained Earnings - Prout | 120,000 |  |
| Accumulated Depreciation |  | 160,000 |

To reduce beginning consolidated retained earnings by amount of unrealized profit at the beginning of the year, to restate property and equipment to its book value to Prout Company on the date of the intercompany sale.

|  |  |  |
|---|---|---|
| (3) Accumulated Depreciation | 16,000 |  |
| Depreciation Expense |  | 8,000 |
| Beginning Retained Earnings - Prout |  | 8,000 |

To reverse amount of excess depreciation recorded during current year and recognize an equivalent amount of intercompany profit as realized

|  |  |  |
|---|---|---|
| (4) Dividend Income | 80,000 |  |
| Dividends Declared |  | 80,000 |

To eliminate intercompany dividends

|  |  |  |
|---|---|---|
| (5) Beginning Retained Earnings – Sexton | 1,040,000 |  |
| Common Stocks – Sexton | 1,200,000 |  |
| Investment in Sexton Company ($1,600,000 + $192,000) |  | 1,792,000 |
| Noncontrolling Interest [$400,000 + ($1,040,000 - $800,000) x .20] |  | 448,000 |

To eliminate investment account and create noncontrolling interest account

**Part B**

|  |  |  |
|---|---|---|
| (1)Cash | 300,000 |  |
| Accumulated Depreciation - Fixed Assets ($360,000/15)(2 ) | 48,000 |  |
| Loss on Sale of Equipment | 12,000 |  |
| Plant and Equipment |  | 360,000 |

|  |  |  |
|---|---|---|
| (2)Beginning Retained Earnings - Prout | 104,000 |  |
| Loss on Sale of Equipment |  | 12,000 |
| Gain on Sale of Equipment |  | 92,000 |

|  |  |
|---|---|
| Cost to the Affiliated Companies | $400,000 |
| Accumulated Depreciation Based on Original Cost ((12/25) × $400,000) | 192,000 |
| Book Value to the Affiliated Companies on 1/1/13 | 208,000 |
| Proceeds from Sale to Non-affiliate | (300,000) |
| Gain to Affiliated Companies on Sale | $92,000 |

(3) No workpaper entries are necessary for 2014 and later years. As of Dec. 31, 2013, the amount of profit recorded by the affiliates on their books ($120,000 - $12,000 = $108,000) is equal to the amount of profit considered realized in the consolidated financial statements ($8,000 + $8,000 + $92,000) = $108,000.

**Problem 7-5**

PROUT COMPANY AND SUBSIDIARY

Consolidated Statements Workpaper – For the Year Ended 12/31/12

| | Prout | Sexton | Eliminations | | Consolidated | Consolidated | Noncontrol. | Consolidated |
|---|---|---|---|---|---|---|---|---|
| **Debits** | Company | Company | Debit | Credit | Income Stat. | Ret. Earnings | Interest | balances |
| Currents Assets | 568,000 | 271,000 | | | | | | 839,000 |
| Investment in Sexton Company | 1,600,000 | | (1) 192,000 | (5) 1,792,000 | | | | |
| Fixed Assets | 1,972,000 | 830,000 | (2) 40,000 | | | | | 2,842,000 |
| Other Assets | 1,000,800 | 1,600,000 | | | | | | 2,600,800 |
| Dividends Declared | | | | | | | | |
| Prout Company | 120,000 | | | | | (120,000) | | |
| Sexton Company | | 100,000 | | (4) 80,000 | | | (20,000) | |
| Cost of Goods Sold | 942,000 | 795,000 | | | 1,737,000 | | | |
| Other Expenses | 145,000 | 90,000 | | (3) 8,000 | 227,000 | | | |
| Income Tax Expense | 187,200 | 90,000 | | | 277,200 | | | |
| Totals | 6,535,000 | 3,776,000 | | | | | | 6,281,800 |
| **Credits** | | | | | | | | |
| Liabilities | 305,000 | 136,000 | | | | | | 441,000 |
| Accumulated Depreciation | 375,000 | 290,000 | (3) 16,000 | (2) 160,000 | | | | 809,000 |
| Common Stock | | | | | | | | |
| Prout Company | 3,000,000 | | | | | | | 3,000,000 |
| Sexton Company | | 1,200,000 | (5) 1,200,000 | | | | | |
| Retained Earnings | | | | | | | | |
| Prout Company | 1,300,000 | | (2) 120,000 | (1) 192,000<br>(3) 8,000 | | 1,380,000 | | |
| Sexton Company | | 1,040,000 | (5) 1,040,000 | | | | | |
| Sales | 1,475,000 | 1,110,000 | | | (2,585,000) | | | |
| Dividend Income | 80,000 | | (4) 80,000 | | | | | |
| Totals | 6,535,000 | 3,776,000 | | | | | | |
| Net/ Consolidated Income | | | | | 343,800 | | | |
| Noncontrolling Interest in Income (.20 x $135,000 = $27,000) | | | | | (27,000) | | 27,000 | |
| Controlling Interest in Consolidated Income | | | | | 316,800 | 316,800 | | |
| Consolidated Retained Earnings | | | | | | 1,576,800 | | 1,576,800 |
| Noncontrolling Interest in Net Assets | | | | (5) 448,000 | | | 448,000 | |
| | | | | | | | 455,000 | 455,000 |
| | | | 2,688,000 | 2,688,000 | | | | |
| Totals | | | | | | | | 6,281,800 |

**Problem 7-6**
**Part A**

PITTS COMPANY AND SUBSIDIARY
Consolidated Statements Workpaper
For the Year Ended December 31, 2012

| | Pitts | Shannon | Eliminations | | Noncontrolling | Consolidated |
|---|---|---|---|---|---|---|
| | Company | Company | Debit | Credit | Interest | Balances |
| **Income Statement** | | | | | | |
| Sales | 1,950,000 | 1,350,000 | | | | 3,300,000 |
| Dividend Income | 60,000 | | (4) 60,000 | | | |
| Total Revenue | 2,010,000 | 1,350,000 | | | | 3,300,000 |
| Cost of Goods Sold: | 1,350,000 | 900,000 | | | | 2,250,000 |
| Other Expenses | 225,000 | 150,000 | | (3) 15,000 | | 360,000 |
| Total Cost & Expenses | 1,575,000 | 1,050,000 | | | | 2,610,000 |
| Net/Consolidated Income | 435,000 | 300,000 | | | | 690,000 |
| Noncontrolling Interest Income | | | | | 63,000* | (63,000) |
| Net Income to Retained Earnings | 435,000 | 300,000 | 60,000 | 15,000 | 63,000 | 627,000 |
| **Statement of Retained Earnings** | | | | | | |
| 1/1 Retained Earnings | | | | | | |
| Pitts Company | 1,215,000 | | (2) 120,000 | (1) 290,400<br>(3) 12,000 | | 1,397,400 |
| Shannon Company | | 1,038,000 | (5) 1,038,000 | | | |
| Net Income from above | 435,000 | 300,000 | 60,000 | 15,000 | 63,000 | 627,000 |
| Dividends Declared | | | | | | |
| Pitts Company | (150,000) | | | | | (150,000) |
| Shannon Company | | (75,000) | | (4) 60,000 | (15,000) | |
| 12/31 Retained Earnings to Balance Sheet | 1,500,000 | 1,263,000 | 1,218,000 | 377,400 | 48,000 | 1,874,400 |

*Noncontrolling interest in income = .20 × ($300,000 + $15,000) = $63,000.
Explanations of workpaper entries are on separate page.

**Problem 7-6 (continued)**

| | Pitts | Shannon | Eliminations | | Noncontrolling | Consolidated |
|---|---|---|---|---|---|---|
| **Balance Sheet** | Company | Company | Debit | Credit | Interest | Balances |
| Assets | | | | | | |
| Inventory | 498,000 | 225,000 | | | | 723,000 |
| Investment in Shannon Company | 960,000 | | (1) 290,400 | (5) 1,250,400 | | |
| Fixed Assets | 2,168,100 | 2,625,000 | (2) 390,000 | | | 5,183,100 |
| Accumulated Depreciation | (900,000) | (612,000) | (3) 30,000 | (2) 540,000 | | (2,022,000) |
| Total Assets | 2,726,100 | 2,238,000 | | | | 3,884,100 |
| | | | | | | |
| Liabilities | 465,600 | 450,000 | | | | 915,600 |
| Capital Stock | | | | | | |
| Pitts Company | 760,500 | | | | | 760,500 |
| Shannon Company | | 525,000 | (5) 525,000 | | | |
| Retained Earnings from above | 1,500,000 | 1,263,000 | 1,218,000 | 377,400 | 48,000 | 1,874,400 |
| Noncontrolling Interest | | | (2) 30,000 | (5) 312,600 | 285,600 | |
| | | | | (3) 3,000 | | |
| | | | | | 333,600 | 333,600 |
| Total Liabilities and Equity | 2,726,100 | 2,238,000 | 2,483,400 | 2,483,400 | | 3,884,100 |

**Problem 7-6 (continued)**

Intercompany Sale of Equipment

| | Cost | Accumulated Depreciation | Carrying Value | Remaining Life | Depreciation |
|---|---|---|---|---|---|
| Original Cost | $1,350,000 | $540,000 | $810,000 | 10 yr | $81,000 |
| Intercompany Selling Price | 960,000 | _______ | 960,000 | 10 yr | 96,000 |
| Difference | $ 390,000 | $540,000 | $150,000 | | $15,000 |

Explanation of workpaper entries (not required)

| | | | |
|---|---|---|---|
| (1) | Investment in Shannon Company | 290,400 | |
| | Retained Earnings – Pitts | | 290,400 |
| | To establish reciprocity/convert to equity (.80 × ($1,038,000 - $675,000)) | | |
| (2) | Equipment | 390,000 | |
| | Retained Earnings – Pitts ($150,000)(.80) | 120,000 | |
| | Noncontrolling Interest ($150,000)(.20) | 30,000 | |
| | Accumulated Depreciation | | 540,000 |
| | To reduce controlling and noncontrolling interests for their respective shares of unrealized intercompany profit at beginning of year, to restore property and equipment to its book value to the selling affiliate on the date of the intercompany sale | | |
| (3) | Accumulated Depreciation | 30,000 | |
| | Other Expenses (Depreciation Expense) | | 15,000 |
| | Retained Earnings – Pitts ($15,000 × .80) | | 12,000 |
| | Noncontrolling Interest ($15,000 × .20) | | 3,000 |
| | To reverse amount of excess depreciation recorded during year and to recognize an equivalent amount of intercompany profit as realized | | |
| (4) | Dividend Income | 60,000 | |
| | Dividends Declared | | 60,000 |
| (5) | Beginning Retained Earnings - Shannon | 1,038,000 | |
| | Common Stock - Shannon | 525,000 | |
| | Investment in Shannon Company ($960,000 + $290,400) | | 1,250,400 |
| | Noncontrolling Interest [$240,000 + ($1,038,000 – $675,000) x.20] | | 312,600 |
| | To eliminate investment account and create noncontrolling interest account | | |

**Part B** Calculation of Consolidated Retained Earnings

| | | |
|---|---|---|
| Pitts Company's retained earnings on 12/31/12 | | $1,500,000 |
| Amount of Pitts Company's retained earnings that have not been realized in transactions with third parties | | 0 |
| Pitts Company's retained earnings that have been realized in transactions with third parties | | 1,500,000 |
| Increase in retained earnings of Shannon Company from date of acquisition to 12/31/12 ($1,263,000 - $675,000) | $588,000 | |
| Less unrealized profit on sales of equipment to Pitts on 1/1/11 included therein ($150,000 - $15,000 - $15,000) | (120,000) | |
| Increase in reported retained earnings of Shannon Company that has been realized in transactions with third parties | 468,000 | |
| Pitts Company share | 80% | 374,400 |
| Consolidated retained earnings on 12/31/12 | | $1,874,400 |

**Problem 7-6 (continued)**

Consolidated Retained Earnings

| | | | |
|---|---|---|---|
| | | Pitts Company's Retained Earnings on 12/31/12 | $1,500,000 |
| Pitts' Company’s share of unrealized gain on upstream sales of equipment from S Company ($150,000 - $15,000 - $15,000).8 | 96,000 | Pitts Company's share of the increase in Shannon Company's Retained Earnings since acquisition ($1,263,000 - $675,000).8 | 470,400 |
| | | Consolidated Retained Earnings | $1,874,400 |

**Problem 7-7**
**Part A**

PARSONS COMPANY AND SUBSIDIARY
Consolidated Statements Workpaper
For the Year Ended December 31, 2013

| | Parsons | Shea | | Eliminations | | | Noncontrolling | Consolidated |
|---|---|---|---|---|---|---|---|---|
| | Company | Company | | Debit | | Credit | Interest | Balances |
| **Income Statement** | | | | | | | | |
| Sales | 2,555,500 | 1,120,000 | (6) | 375,000 | | | | 3,300,500 |
| Dividend Income | 54,000 | | (12) | 54,000 | | | | |
| Total Revenue | 2,609,500 | 1,120,000 | | | | | | 3,300,500 |
| Cost of Goods Sold | 1,730,000 | 690,500 | (8) | 10,500 | (5) | 7,500 | | 2,048,500 |
| | | | | | (6) | 375,000 | | |
| Expenses | 654,500 | 251,000 | (11) | 12,667 | (3) | 9,500 | | 908,667 |
| Total Cost & Expense | 2,384,500 | 941,500 | | | | | | 2,957,167 |
| Net/Consolidated Income | 225,000 | 178,500 | | | | | | 343,333 |
| Noncontrolling Interest in Income | | | | | | | 16,283 * | (16,283) |
| Net Income to Retained Earnings | 225,000 | 178,500 | | 452,167 | | 392,000 | 16,283 | 327,050 |
| | | | | | | | | |
| **Statement of Retained Earnings** | | | | | | | | |
| 1/1 Retained Earnings | | | | | | | | |
| Parsons Company | 595,000 | | (2) | 47,500 | (1) | 71,550 | | 591,200 |
| | | | (4) | 13,500 | (3) | 9,500 | | |
| | | | (5) | 6,750 | | | | |
| | | | (11) | 17,100 | | | | |
| Shea Company | | 139,500 | (9) | 139,500 | | | | |
| | | | | | | | | |
| Net income from above | 225,000 | 178,500 | | 452,167 | | 392,000 | 16,283 | 327,050 |
| Dividend Declared | | | | | | | | |
| Parsons Company | (100,000) | | | | | | | (100,000) |
| Shea Company | | (60,000) | | | (12) | 54,000 | (6,000) | |
| 12/31 Retained Earnings to Balance Sheet | 720,000 | 258,000 | | 676,517 | | 527,050 | 10,283 | 818,250 |

**Problem 7-7 (continued)**

|  | Parsons | Shea | Eliminations |  | Noncontrolling | Consolidated |
|---|---|---|---|---|---|---|
|  | Company | Company | Debit | Credit | Interest | Balances |
| **Balance Sheet** |  |  |  |  |  |  |
| Cash | 119,500 | 132,500 |  |  |  | 252,000 |
| Accounts Receivable | 342,000 | 125,000 |  | (7) 60,000 |  | 407,000 |
| Inventory | 362,000 | 201,000 |  | (8) 10,500 |  | 552,500 |
| Other Current Assets | 40,500 | 13,000 |  |  |  | 53,500 |
| Investment in Shea Company | 426,000 |  | (1) 71,550 | (9) 497,550 |  |  |
| Difference between Implied and Book Value |  |  | (9) 63,333 | (10) 63,333 |  |  |
| Land | 150,000 |  |  | (4) 15,000 |  | 135,000 |
| Plant and Equipment | 825,000 | 241,000 | (2) 2,500 |  |  | 1,068,500 |
| Accumulated Depreciation | (207,000) | (53,500) | (3) 19,000 | (2) 50,000 |  | (291,500) |
| Manufacturing Formula |  |  | (10) 63,333 | (11) 31,667 |  | 31,666 |
| Total Assets | 2,058,000 | 659,000 |  |  |  | 2,208,666 |
|  |  |  |  |  |  |  |
| Accounts Payable | 295,000 | 32,000 | (7) 60,000 |  |  | 267,000 |
| Other Liabilities | 43,000 | 19,000 |  |  |  | 62,000 |
| Capital Stock |  |  |  |  |  |  |
| Parsons Company | 1,000,000 |  |  |  |  | 1,000,000 |
| Shea Company |  | 300,000 | (9) 300,000 |  |  |  |
| Additional Paid-in Capital |  |  |  |  |  |  |
| Shea Company |  | 50,000 | (9) 50,000 |  |  |  |
| Retained Earnings from above | 720,000 | 258,000 | 676,517 | 527,050 | 10,283 | 818,250 |
| 1/1 Noncontrolling Interest in Net Assets |  |  | (4) 1,500 | (9) 55,283 | 51,133 |  |
|  |  |  | (5) 750 |  |  |  |
|  |  |  | (11) 1,900 |  |  |  |
| 12/31Noncontrolling Interest in Net Assets |  |  |  |  | 61,416 | 61,416 |
| Total Liabilities & Equity | 2,058,000 | 659,000 | 1,310,383 | 1,310,383 |  | 2,208,666 |

* Noncontrolling interest income = .10 × ($178,500 + $7,500 - $10,500 - $12,667) = $16,283
Explanations of the workpaper entries are on a separate page

**Problem 7-7 (continued)**

Intercompany Sale of Equipment

| | Cost | Accumulated Depreciation | Carrying Value | Remaining Life | Depreciation |
|---|---|---|---|---|---|
| Original Cost | $100,000 | $50,000 | $50,000 | 5 yr | $10,000 |
| Intercompany Selling Price | 97,500 | | 97,500 | 5 yr | 19,500 |
| Difference | $ 2,500 | $50,000 | $47,500 | | $ 9,500 |

Explanations of workpaper entries

| | | | |
|---|---|---|---|
| (1) | Investment in Shea Company | 71,550 | |
| | 1/1 Retained Earnings - Parsons Co. | | 71,550 |
| | To establish reciprocity/convert to equity (.9 × ($139,500 - $60,000)) | | |
| (2) | Plant and Equipment ($100,000 - $97,500) | 2,500 | |
| | Beginning Retained Earnings – Parsons ($50,000 - $2,500) | 47,500 | |
| | Accumulated Depreciation | | 50,000 |
| | To eliminate unrealized profit on intercompany sale of equipment and to restore plant and equipment to its book value on the date of intercompany sale | | |
| (3) | Accumulated Depreciation | 19,000 | |
| | Expenses (Depreciation Expense) | | 9,500 |
| | Beginning Retained Earnings - Parsons | | 9,500 |
| | To reverse excess depreciation recorded during 2013 (.20 × $47,500) | | |
| (4) | Beginning Retained Earnings - Parsons Co. (.90 × $15,000) | 13,500 | |
| | Noncontrolling Interest (.10 × $15,000) | 1,500 | |
| | Land | | 15,000 |
| | To eliminate unrealized profit on intercompany sale of land (upstream sale) | | |
| (5) | Beginning Retained Earnings - Parsons Co. (.90 × $7,500) | 6,750 | |
| | Noncontrolling Interest (.10 × $7,500) | 750 | |
| | Cost of Goods Sold | | 7,500 |
| | To eliminate intercompany profit in beginning inventory (upstream sale) | | |
| (6) | Sales | 375,000 | |
| | Cost of Goods Sold (Purchases) | | 375,000 |
| | To eliminate intercompany sale | | |
| (7) | Accounts Payable | 60,000 | |
| | Accounts Receivable | | 60,000 |
| | To eliminate intercompany payables and receivables | | |
| (8) | Cost of Goods Sold (Ending Inventory – Income Statement) | 10,500 | |
| | Inventory | | 10,500 |
| | To eliminate unrealized profit in ending inventories | | |

**Problem 7-7 (continued)**

| | | | |
|---|---|---|---|
| (9) | Beginning Retained Earnings - Shea Co. | 139,500 | |
| | Capital Stock - Shea Co. | 300,000 | |
| | Additional Paid-in Capital - Shea Co. | 50,000 | |
| | Difference between Implied and Book Value | 63,333 | |
| | Investment in Shea ($426,000 + $71,550) | | 497,550 |
| | Noncontrolling Interest [$47,333 + ($139,500 – $60,000) x .10] | | 55,283 |
| | To eliminate the investment account and create noncontrolling interest account | | |
| (10) | Manufacturing Formula | 63,333 | |
| | Difference between Implied and Book Value | | 63,333 |
| | To allocate the difference between implied and book value | | |
| (11) | Beginning Retained Earnings - Parsons Co. ($63,333/5 x 1.5) x .90 | 17,100 | |
| | Noncontrolling Interest ($63,333/5 x 1.5) x .10 | 1,900 | |
| | Expenses ($63,333/5) | 12,667 | |
| | Manufacturing Formula | | 31,667 |
| | To amortize the difference between implied and book value | | |

Alternative to entries (10) and (11)

| | | | |
|---|---|---|---|
| (10a) | Beginning Retained Earnings - Parsons Co. ($63,333/5 x 1.5) x .90 | 17,100 | |
| | Noncontrolling Interest ($63,333/5 x 1.5) x .10 | 1,900 | |
| | Manufacturing Formula | 31,666 | |
| | Expenses ($63,333/5) | 12,667 | |
| | Difference between Implied and Book Value | | 63,333 |
| | To allocate and amortize the difference between implied and book value<br>($63,333/5) = $12,667; $63,333 - ($12,667 × 2.5) = $31,666 | | |
| (12) | Dividend Income | 54,000 | |
| | Dividends Declared | | 54,000 |
| | To eliminate intercompany dividend ($60,000 × .90 = $54,000) | | |

**Problem 7-7 (continued)**

**Part B**

| | | |
|---|---|---|
| Parsons Company's retained earnings on 12/31/2013 | | $ 720,000 |
| Less intercompany unrealized profit on sales of equipment to Shea on 12/31/2011 included therein ($47,500 - $9,500 - $9,500) | | (28,500) |
| Parsons Company's retained earnings that have been realized in transactions with third parties | | 691,500 |
| Increase in retained earnings of Shea Company from date of acquisition to 12/31/2013 ($258,000 - $60,000) | 198,000 | |
| Less cumulative effect of adjustment to date relating to amortization of manufacturing formula ($19,000 + $12,667) | (31,667) | |
| Less unrealized profit on sales to Parsons in 2012 and 2013 that has not been realized by sales to third parties ($15,000 + $10,500) | (25,500) | |
| Increase in reported retained earnings of Shea since acquisition that has been realized in transactions with third parties | 140,833 | |
| Parsons Company share thereof (.90 × $140,833) | 90% | 126,750 |
| Consolidated retained earnings on 12/31/2013 | | $ 818,250 |

Alternatively

Consolidated Retained Earnings

| | | | | |
|---|---|---|---|---|
| Unrealized profit on upstream sales in Parson's ending inventory ($15,000 + $10,500)(.90) | 22,950 | Parsons Company's Retained Earnings on 12/31/13 | | $720,000 |
| | | Increase in Shea Company's Retained Earnings since acquisition ($258,000 - $60,000) = $198,000 | | |
| Unrealized gain on downstream sales of equipment to Shea Company ($47,500 - $9,500 - $9,500) | 28,500 | *Less*: amortization of the difference between implied and book value | 31,667 | |
| | | Adjusted increase | $166,333 | |
| | | Parson Company's share | 90% | 149,700 |
| | | Consolidated Retained Earnings | | $818,250 |

**Problem 7-8**

PHELPS COMPANY AND SUBSIDIARY
Consolidated Statements Workpaper
For the Year Ended December 31, 2011

|  | Phelps Company | Sloane Company | Eliminations Debit | Eliminations Credit | Noncontrolling Interest | Consolidated Balances |
|---|---|---|---|---|---|---|
| **Income Statement** |  |  |  |  |  |  |
| Sales | 1,291,500 | 560,000 | (2) 260,000 |  |  | 1,591,500 |
| Other Income |  | 140,000 | (5) 140,000 |  |  |  |
| Dividend Income | 42,500 |  | (11) 42,500 |  |  |  |
| Total Revenue | 1,334,000 | 700,000 |  |  |  | 1,591,500 |
| Cost of Goods Sold | 660,000 | 300,000 | (4) 15,000 | (2) 260,000 |  | 729,000 |
|  |  |  | (8) 24,000 | (3) 10,000 |  |  |
| Depreciation Expense | 138,000 | 20,000 |  | (6) 18,667 |  | 139,333 |
| Interest Expense | 8,000 | 10,000 | (9) 6,000 |  |  | 24,000 |
| Other Expenses | 174,000 | 140,000 |  |  |  | 314,000 |
| Total Cost and Expense | 980,000 | 470,000 |  |  |  | 1,206,333 |
| Net/Consolidated Income | 354,000 | 230,000 |  |  |  | 385,167 |
| Noncontrolling Interest in Income |  |  |  |  | 13,300 * | (13,300) |
| Net Income to Retained Earnings | 354,000 | 230,000 | 487,500 | 288,667 | 13,300 | 371,867 |
| **Statement of Retained Earnings** |  |  |  |  |  |  |
| 1/1 Retained Earnings |  |  |  |  |  |  |
| Phelps Company | 350,500 |  | (3) 8,500 | (1) 85,000 |  | 401,500 |
|  |  |  | (8) 20,400 |  |  |  |
|  |  |  | (9) 5,100 |  |  |  |
| Sloane Company |  | 250,000 | (7) 250,000 |  |  |  |
| Net Income from above | 354,000 | 230,000 | 487,500 | 288,667 | 13,300 | 371,867 |
| Dividends Declared |  |  |  |  |  |  |
| Phelps Company |  |  |  |  |  | (100,000) |
| Sloane Company |  | (50,000) |  | (11) 42,500 | (7,500) |  |
| 12/31 Retained Earnings to Balance Sheet | 604,500 | 430,000 | 771,500 | 416,167 | 5,800 | 673,367 |

**Problem 7-8 (continued)**

| | Phelps Company | Sloane Company | | Eliminations Debit | | Eliminations Credit | Noncontrolling Interest | Consolidated Balances |
|---|---|---|---|---|---|---|---|---|
| **Balance Sheet** | | | | | | | | |
| Cash | 127,000 | 70,000 | | | | | | 197,000 |
| Accounts Receivable | 300,000 | 210,000 | | | (10) | 40,000 | | 470,000 |
| Inventory | 270,000 | 175,000 | | | (4) | 15,000 | | 430,000 |
| Investment in Sloane Company | 955,000 | | (1) | 85,000 | (7) | 1,040,000 | | |
| Difference between | | | | | | | | |
| Implied and Book Value | | | (7) | 223,529 | (8) | 223,529 | | |
| Land | 100,000 | 290,000 | (8) | 36,000 | | | | 426,000 |
| Plant and Equipment | 800,000 | 800,000 | (5) | 26,667 | | | | 1,626,667 |
| Accumulated Depreciation | (200,000) | (200,000) | (6) | 18,667 | (5) | 166,667 | | (548,000) |
| Goodwill | | | (8) | 91,529 | | | | 91,529 |
| Total Assets | 2,352,000 | 1,345,000 | | | | | | 2,693,196 |
| | | | | | | | | |
| Accounts Payable | 167,500 | 65,000 | (10) | 40,000 | | | | 192,500 |
| Bonds Payable | 80,000 | 100,000 | | | | | | 180,000 |
| Discount on Bonds Payable | | | (8) | 48,000 | (9) | 12,000 | | (36,000) |
| Capital Stock | | | | | | | | |
| Phelps Company | 1,500,000 | | | | | | | 1,500,000 |
| Sloane Company | | 750,000 | (7) | 750,000 | | | | |
| | | | | | | | | |
| Retained Earnings from above | 604,500 | 430,000 | | 771,500 | | 416,167 | 5,800 | 673,367 |
| 1/1 Noncontrolling Interest in | | | (3) | 1,500 | (7) | 183,529 | 177,529 | |
| Net Assets | | | (8) | 3,600 | | | | |
| | | | (9) | 900 | | | | |
| 12/31 Noncontrolling Interest in NA | | | | | | | 183,329 | 183,329 |
| Total Liabilities & Equity | 2,352,000 | 1,345,000 | | 2,096,892 | | 2,096,892 | | 2,693,196 |

* Noncontrolling interest income = .15 × ($230,000 + $10,000 - $140,000 + $18,667 – $24,000 – $6,000) = $13,300
Explanations of the workpaper entries are on a separate page

**Problem 7-8 (continued)**

| Intercompany Sale of Equipment | Cost | Depreciation | Carrying Value | Remaining<br>Life | Depreciation |
|---|---|---|---|---|---|
| Original Cost | $666,667 | $166,667 | $500,000 | 7.5 yr | $66,667 |
| Intercompany Selling Price | 640,000 | _______ | 640,000 | 7.5 yr | 85,333 |
| Difference | $ 26,667 | $166,667 | $140,000 | | $18,666 |

| | |
|---|---|
| Original cost | [$500,000/(7.5/10 years)] = $500,000/.75 = $666,667 |
| Depreciation | $666,667/10 years = $66,667 |
| Ac. depreciation | $66,667 × 2.5 years = $166,667 |
| Book value | $666,667 - $166,667 = $500,000 |

Explanations of workpaper entries (not required)

| | Debit | Credit |
|---|---|---|
| (1) Investment in Sloane Company | 85,000 | |
| Beginning Retained Earnings - Phelps Co. | | 85,000 |
| To establish reciprocity/convert to equity [($250,000 - $150,000) × .85] | | |
| (2) Sales | 260,000 | |
| Cost of Goods Sold (Purchases) ($200,000 × 1.3) | | 260,000 |
| To eliminate intercompany sales | | |
| (3) 1/1 Retained Earnings - Phelps | 8,500 | |
| 1/1 Noncontrolling Interest | 1,500 | |
| Cost of Goods Sold | | 10,000 |
| To recognize intercompany profit realized during the year | | |
| (4) Cost of Goods Sold (Ending Inventory – Income Statement) | 15,000 | |
| Inventory (Balance Sheet) | | 15,000 |
| To eliminate unrealized intercompnay profit in ending inventory [$65,000 - ($65,000/1.30)] | | |
| (5) Plant and Equipment | 26,667 | |
| Gain on Sale (other income) | 140,000 | |
| Accumulated Depreciation | | 166,667 |
| To eliminate unrealized profit recorded on intercompany sale of equipment and restate equipment to its book value on date of intercompany sale | | |
| (6) Accumulated Depreciation | 18,667 | |
| Depreciation Expense | | 18,667 |
| To reverse amount of excess depreciation recorded during current year and to recognize an equivalent amount of intercompany profit as realized ($140,000/7.5 years) | | |

**Problem 7-8 (continued)**

| | | |
|---|---|---|
| (7) 1/1 Retained Earnings – Sloane | 250,000 | |
| Capital Stock – Sloane | 750,000 | |
| Difference between Implied and Book Value | 223,529 | |
| Investment in Sloane Company ($955,000 + $85,000) | | 1,040,000 |
| Noncontrolling interest [$168,529 + ($250,000 – $150,000) x .15] | | 183,529 |
| To eliminate investment account and create noncontrolling interest account | | |
| | | |
| (8) Beginning Retained Earnings – Phelps (1/2 of inventory sold in 2010) | 20,400 | |
| Noncontrolling Interest (1/2 of inventory sold in 2010) | 3,600 | |
| Cost of Goods Sold (1/2 of inventory sold in 2011) | 24,000 | |
| Goodwill | 91,529 | |
| Land | 36,000 | |
| Discount on Bonds Payable | 48,000 | |
| Difference between Implied and Book Value | | 223,529 |
| | | |
| (9) Beginning Retained Earnings – Phelps | 5,100 | |
| Noncontrolling Interest | 900 | |
| Interest Expense ($48,000/8) | 6,000 | |
| Discount on Bonds Payable | | 12,000 |
| | | |
| Alternative to entries (8) and (9) | | |
| (8a) Beginning Retained Earnings - Phelps ($20,400 + $5,100) | 25,500 | |
| Noncontrolling interest ($3,600 + $900) | 4,500 | |
| Cost of Goods Sold | 24,000 | |
| Interest Expense ($48,000/8) | 6,000 | |
| Land | 36,000 | |
| Discount on Bonds Payable ($48,000 - $6,000 - $6,000) | 36,000 | |
| Goodwill | 91,529 | |
| Difference between Implied and Book Value | | 223,529 |
| To allocate, amortize and depreciate the difference between implied and book value | | |
| | | |
| (10) Accounts Payable | 40,000 | |
| Accounts Receivable | | 40,000 |
| To eliminate intercompany payable and receivable | | |
| | | |
| (11) Dividend Income | 42,500 | |
| Dividends Declared | | 42,500 |
| To eliminate intercompany dividends ($50,000 × .85) | | |

**Problem 7-9**

Computation and Allocation of Difference Schedule

| | Parent Share | Non-Controlling Share | Entire Value |
|---|---|---|---|
| Purchase price and implied value | **$1,480,000** | **164,444** | 1,644,444 * |
| Less: Book value of equity acquired | 1,350,000 | 150,000 | **1,500,000** |
| Difference between implied and book value | 130,000 | 14,444 | **144,444** |
| Inventory | (45,000) | (5,000) | (**50,000)** |
| Equipment | (135,000) | (15,000) | (**150,000)** |
| Land | (90,000) | (10,000) | **(100,000)** |
| Balance (excess of FV over implied value) | (140,000) | (15,556) | (155,556) |
| Gain | **140,000** | | |
| Increase noncontrolling interest to fair value of assets | | **15,556** | |
| Total allocated bargain | | | 155,556 |
| Balance | -0- | -0- | -0- |

*$1,480,000/.90

| Amortization Schedule | 2011 | 2012 |
|---|---|---|
| Inventory ($50,000 × .80); ($50,000 × .20) | $40,000 | $10,000 |
| Plant and Equipment ($150,000/10) | $15,000 | $15,000 |
| Land | $0 | $0 |
| Total | $55,000 | $25,000 |

**Problem 7-9**

PIERCE COMPANY AND SUBSIDIARY
Consolidated Statements Workpaper
For the Year Ended December 31, 2012

| | Pierce Company | Sanders Company | Eliminations Debit | Eliminations Credit | Noncontrolling Interest | Consolidated Balances |
|---|---|---|---|---|---|---|
| **Income Statement** | | | | | | |
| Sales | 1,700,000 | 900,000 | (2) 430,000 | | | 2,170,000 |
| Gain on sale of land | | 50,000 | (5) 50,000 | | | |
| Dividend income | 63,000 | | (10) 63,000 | | | |
| Total revenue | 1,763,000 | 950,000 | | | | 2,170,000 |
| Cost of goods sold | 600,000 | 400,000 | (3) 11,000 | (2) 430,000 | | 571,000 |
| | | | (7) 10,000 | (4) 20,000 | | |
| Depreciation expense | 60,000 | 40,000 | (8) 15,000 | | | 115,000 |
| Other expenses | 400,000 | 260,000 | | | | 660,000 |
| Total cost and expense | 1,060,000 | 700,000 | | | | 1,346,000 |
| Net/consolidated income | 703,000 | 250,000 | | | | 824,000 |
| Noncontrolling interest in income | | | | | 18,000 * | (18,000) |
| Net income to retained earnings | 703,000 | 250,000 | 579,000 | 450,000 | 18,000 | 806,000 |
| | | | | | | |
| **Statement of Retained Earnings** | | | | | | |
| 1/1 Retained earnings | | | | | | |
| Pierce Company | 706,000 | | (4) 19,000 | (1) 72,000 | | 849,500 |
| | | | (7) 36,000 | (7) 140,000 | | |
| | | | (8) 13,500 | | | |
| Sanders Company | | 580,000 | (6) 580,000 | | | |
| | | | | | | |
| Net income from above | 703,000 | 250,000 | 579,000 | 450,000 | 18,000 | 806,000 |
| Dividends declared | | | | | | |
| Pierce Company | (120,000 ) | | | | | (120,000) |
| Sanders Company | | (70,000) | | (10) 63,000 | (7,000) | |
| 12/31 Retained earnings | | | | | | |
| to balance sheet | 1,289,000 | 760,000 | 1,227,500 | 725,000 | 11,000 | 1,535,500 |

| **Problem 7-9 (continued)** | Pierce | Sanders | | Eliminations | | | Noncontrolling | Consolidated |
|---|---|---|---|---|---|---|---|---|
| | Company | Company | | Debit | | Credit | Interest | Balances |
| **Balance Sheet** | | | | | | | | |
| Cash | 200,000 | 150,000 | | | | | | 350,000 |
| Accounts receivable | 300,000 | 250,000 | | | (9) | 60,000 | | 490,000 |
| Inventory | 300,000 | 250,000 | | | (3) | 11,000 | | 539,000 |
| Marketable securities | 100,000 | 200,000 | | | | | | 300,000 |
| Investment in Sanders Company | 1,480,000 | | (1) | 72,000 | (6) | 1,552,000 | | |
| Difference between implied and book value | | | (6) | 144,444 | (7) | 144,444 | | |
| Land | 400,000 | 350,000 | (7) | 100,000 | (5) | 50,000 | | 800,000 |
| Plant and equipment | 1,000,000 | 800,000 | (7) | 150,000 | (8) | 30,000 | | 1,920,000 |
| Total Assets | 3,780,000 | 2,000,000 | | | | | | 4,399,000 |
| | | | | | | | | |
| Accounts payable | 241,000 | 140,000 | (9) | 60,000 | | | | 321,000 |
| Notes payable | 350,000 | 100,000 | | | | | | 450,000 |
| Capital stock | | | | | | | | |
| Pierce Company | 1,900,000 | | | | | | | 1,900,000 |
| Sanders Company | | 1,000,000 | (6) | 1,000,000 | | | | |
| Retained earnings from above | 1,289,000 | 760,000 | | 1,227,500 | | 725,000 | 11,000 | 1,535,500 |
| 1/1 Noncontrolling interest in net assets | | | (4) | 1,000 | (6) | 172,444 | 181,500 | |
| | | | (7) | 4,000 | (7) | 15,556 | | |
| | | | (8) | 1,500 | | | | |
| 12/31 Noncontrolling interest in net assets | | | | | | | 192,500 | 192,500 |
| Total liabilities & equity | 3,780,000 | 2,000,000 | | 2,760,444 | | 2,760,444 | | 4,399,000 |

* Noncontrolling interest income = .10 × ($250,000 + $10,000 - $5,000 - $50,000 - $10,000 - $15,000) = $18,000.
Explanations of the workpaper entries are on a separate page.

**Problem 7-9 (continued)**

Explanations of workpaper entries

| | | |
|---|---|---|
| (1) Investment in Sanders Company | 72,000 | |
| Beginning Retained Earnings - Pierce Co. | | 72,000 |
| To establish reciprocity/convert to equity [($580,000 - $500,000) × .90] | | |
| (2) Sales | 430,000 | |
| Cost of Goods Sold (Purchases)($350,000 + $80,000) | | 430,000 |
| To eliminate intercompany sales | | |
| (3) Cost of Goods Sold (Ending Inventory – Income Statement) | 11,000 | |
| Inventory (Balance Sheet) | | 11,000 |
| To eliminate unrealized intercompany profit in ending inventory [$30,000 - ($30,000/1.25) = $6,000] + [$20,000 - ($20,000/1.3333*) = $5,000] | | |
| * (1/(1-.25) = 1.3333 | | |
| (4) 1/1 Retained Earnings - Pierce | 19,000 | |
| 1/1 Noncontrolling Interest (.1 × $10,000) | 1,000 | |
| Cost of Goods Sold | | 20,000 |
| To recognize intercompany profit realized during the year and to reduce noncontrolling interest at beginning of year for its share of unrealized intercompany profit at beginning of year [$50,000 - ($50,000/1.25) = $10,000] + [$40,000 - ($40,000/1.3333) = $20,000] | | |
| (5) Gain on Sale of Land | 50,000 | |
| Land | | 50,000 |
| To eliminate unrealized profit recorded on intercompany sale of land and reduce carrying value of land to its book value on date of sale | | |
| (6) 1/1 Retained Earnings – Sanders | 580,000 | |
| Common Stock – Sanders | 1,000,000 | |
| Difference between Implied and Book Value | 144,444 | |
| Investment in Sanders Company ($1,480,000 + $72,000) | | 1,552,000 |
| Noncontrolling interest [$164,444 + ($580,000 - $500,000) x.10] | | 172,444 |
| (7) 1/1 Retained Earnings - Pierce ($45,000 × .8) | 36,000 | |
| Noncontrolling Interest ($5,000 x .8) | 4,000 | |
| Cost of Goods Sold (.2 × $50,000) | 10,000 | |
| Land | 100,000 | |
| Plant and Equipment | 150,000 | |
| Difference between Implied and Book Value | | 144,444 |
| Gain – Retained Earnings - Pierce | | 140,000 |
| Noncontrolling Interest | | 15,556 |

**Problem 7-9 (continued)**

| | | |
|---|---|---|
| (8)1/1 Retained Earnings - Pierce | 13,500 | |
| Noncontrolling Interest | 1,500 | |
| Depreciation Expense ($150,000/10) | 15,000 | |
| Plant and Equipment (net) | | 30,000 |

Alternative to entries (7) and (8)

| | | |
|---|---|---|
| (7a)1/1 Retained Earnings - Pierce ($36,000 + $13,500) | 49,500 | |
| Noncontrolling Interest ($4,000 + $1,500) | 5,500 | |
| Cost of Goods Sold (.2 × $50,000) | 10,000 | |
| Depreciation Expense ($150,000/10) | 15,000 | |
| Land | 100,000 | |
| Plant and Equipment ($150,000 - $30,000) | 120,000 | |
| Difference between Implied and Book Value | | 144,444 |
| Gain | | 140,000 |
| Noncontrolling Interest | | 15,556 |
| To allocate, amortize and depreciate the difference between implied and book value | | |

| | | |
|---|---|---|
| (9) Accounts Payable | 60,000 | |
| Accounts Receivable | | 60,000 |
| To eliminate intercompany payable and receivable | | |

| | | |
|---|---|---|
| (10)Dividend Income | 63,000 | |
| Dividends Declared | | 63,000 |
| To eliminate intercompany dividends ($70,000 × .90). | | |

**Problem 7-10**
**Part A**

PROUT COMPANY AND SUBSIDIARY
Consolidated Statements Workpaper
For the Year Ended December 31, 2012

| | Prout Company | Sexton Company | Eliminations Debit | Eliminations Credit | Noncontrolling Interest | Consolidated Balances |
|---|---|---|---|---|---|---|
| **Income Statement** | | | | | | |
| Sales | 1,475,000 | 1,110,000 | | | | 2,585,000 |
| Equity in Subsidiary Income | 108,000 | | (1) 108,000 | | | |
| Total Revenue | 1,583,000 | 1,110,000 | | | | 2,585,000 |
| Cost of Goods Sold: | 942,000 | 795,000 | | | | 1,737,000 |
| Income Tax Expense | 187,200 | 90,000 | | | | 277,200 |
| Other Expenses | 145,000 | 90,000 | | (3) 8,000 | | 227,000 |
| Total Cost & Expenses | 1,274,200 | 975,000 | | | | 2,241,200 |
| Net /Consolidated Income | 308,800 | 135,000 | | | | 343,800 |
| Noncontrolling Interest Income* | | | | | 27,000 | * (27,000) |
| Net Income to Retained Earnings | 308,800 | 135,000 | 108,000 | 8,000 | 27,000 | 316,800 |
| | | | | | | |
| **Statement of Retained Earnings** | | | | | | |
| 1/1 Retained Earnings | | | | | | |
| Prout Company | 1,492,000 | | (2) 120,000 | (3) 8,000 | | 1,380,000 |
| Sexton Company | | 1,040,000 | (4) 1,040,000 | | | |
| Net Income from above | 308,800 | 135,000 | 108,000 | 8,000 | 27,000 | 316,800 |
| Dividends Declared | | | | | | |
| Prout Company | (120,000) | | | | | (120,000) |
| Sexton Company | | (100,000) | | (1) 80,000 | (20,000) | |
| 12/31 Retained Earnings to Balance Sheet | 1,680,800 | 1,075,000 | 1,268,000 | 96,000 | 7,000 | 1,576,800 |

* Noncontrolling interest in consolidated income = .20 × $135,000 = $27,000

**Problem 7-10 (continued)**

| | Prout | Sexton | Eliminations | | Noncontrolling | Consolidated |
|---|---|---|---|---|---|---|
| | Company | Company | Debit | Credit | Interest | Balances |
| **Balance Sheet** | | | | | | |
| Current Assets | 568,000 | 271,000 | | | | 839,000 |
| Investment in Sexton Company | 1,820,000 | | | (1) 28,000 | | |
| | | | | (4) 1,792,000 | | |
| Plant and Equipment | 1,972,000 | 830,000 | (2) 40,000 | | | 2,842,000 |
| Accumulated depreciation | (375,000) | (290,000) | (3) 16,000 | (2) 160,000 | | (809,000) |
| Other Assets | 1,000,800 | 1,600,000 | | | | 2,600,800 |
| Total Assets | 4,985,800 | 2,411,000 | | | | 5,472,800 |
| | | | | | | |
| Other Liabilities | 305,000 | 136,000 | | | | 441,000 |
| Capital Stock | | | | | | |
| Prout Company | 3,000,000 | | | | | 3,000,000 |
| Sexton Company | | 1,200,000 | (4) 1,200,000 | | | |
| Retained Earnings from above | 1,680,800 | 1,075,000 | 1,268,000 | 96,000 | 7,000 | 1,576,800 |
| 1/1 Noncontrolling Interest | | | | (4) 448,000 | 448,000 | |
| 12/31 Noncontrolling Interest | | | | | 455,000 | 455,000 |
| Total Liabilities & Equity | 4,985,800 | 2,411,000 | 2,524,000 | 2524,000 | | 5,472,800 |

Explanations of workpaper entries are on separate page.

**Problem 7-10 (continued)**

**Schedule to calculate intercompany profit**

Intercompany Sale of Equipment

| | Cost | Accumulated Depreciation | Carrying Value | Remaining Life | Depreciation |
|---|---|---|---|---|---|
| Original Cost | $400,000 | $160,000 | $240,000 | 15 yr | $16,000 |
| Intercompany Selling Price | 360,000 | | 360,000 | 15 yr | 24,000 |
| Difference | $ 40,000 | $160,000 | $120,000 | | $ 8,000 |

Explanation of workpaper entries (not required)

| | | |
|---|---|---|
| (1) Equity in Subsidiary Income | 108,000 | |
| Dividends Declared (.80)($100,000) | | 80,000 |
| Investment in Sexton Company | | 28,000 |

To reverse the effect of parent company entries during the year for subsidiary dividends and income

| | | |
|---|---|---|
| (2) Property and Equipment ($400,000 - $360,000) | 40,000 | |
| Beginning Retained Earnings - Prout Company | 120,000 | |
| Accumulated Depreciation | | 160,000 |

To reduce beginning consolidated retained earnings by amount of unrealized profit at the beginning of the year, and to restore the value of the equipment to its book value on the date of intercompany sale

| | | |
|---|---|---|
| (3) Accumulated Depreciation | 16,000 | |
| Depreciation Expense | | 8,000 |
| Beginning Retained Earnings - Prout Company | | 8,000 |

To reverse amount of excess depreciation recorded during current year and recognize an equivalent amount of intercompany profit as realized

| | | |
|---|---|---|
| (4) Beginning Retained Earnings – Sexton | 1,040,000 | |
| Common Stock – Sexton | 1,200,000 | |
| Investment in Sexton Company ($1,820,000 - $28,000) | | 1,792,000 |
| Noncontrolling Interest [$400,000 + ($1,040,000 - $800,000) x .20] | | 448,000 |

To eliminate investment account and create noncontrolling interest account

**Problem 7-10 (continued)**

**Part B**

| | | |
|---|---|---|
| (1) Cash | 300,000 | |
| Accumulated Depreciation - Fixed Assets | | |
| ($360,000/15 yrs. × 2 yrs.) | 48,000 | |
| Loss on Sale of Equipment | 12,000 | |
| Plant and Equipment | | 360,000 |
| (2) Beginning Retained Earnings - Prout | 104,000 | |
| Loss on Sale of Equipment | | 12,000 |
| Gain on Sale of Equipment | | 92,000 |

| | |
|---|---|
| Cost to the affiliated companies | $ 400,000 |
| Accumulated depreciation based on original cost [(12/25 × $400,000)] | 192,000 |
| Book value to the affiliated companies on 1/1/13 | 208,000 |
| Proceeds from sale to non-affiliate | (300,000) |
| Gain to affiliated companies on sale | $ 92,000 |

(3) No workpaper entries are necessary for 2014 and later years. As of December 31, 2013, the amount of profit recorded by the affiliates on their books [$120,000 - $12,000 = $108,000] is equal to the amount of profit considered realized in the consolidated financial statements [$8,000 + $8,000 + $92,000 = $108,000].

**Problem 7-11** Prout Company and Subsidiary, Consolidated Statements Workpaper - FYE December 31, 2012

| | Prout | Sexton | Eliminations | | Consolidated | Consolidated | Noncontrolling | Consolidated |
|---|---|---|---|---|---|---|---|---|
| **Debits** | Company | Company | Debit | Credit | Income Stat. | Ret. Earnings | Interest | Bal. Sheet |
| Currents Assets | 568,000 | 271,000 | | | | | | 839,000 |
| Investment in Sexton Company | 1,820,000 | | | (1) 28,000 | | | | |
| | | | | (4) 1,792,000 | | | | |
| Fixed Assets | 1,972,000 | 830,000 | (2) 40,000 | | | | | 2,842,000 |
| Other Assets | 1,000,800 | 1,600,000 | | | | | | 2,600,800 |
| Dividends Declared | | | | | | | | |
| Prout Company | 120,000 | | | | | (120,000) | | |
| Sexton Company | | 100,000 | | (1) 80,000 | | | (20,000) | |
| Cost of Goods Sold | 942,000 | 795,000 | | | 1,737,000 | | | |
| Other Expenses | 145,000 | 90,000 | | (3) 8,000 | 227,000 | | | |
| Income Tax Expense | 187,200 | 90,000 | | | 277,200 | | | |
| Totals | 6,755,000 | 3,776,000 | | | | | | 6,281,800 |
| **Credits** | | | | | | | | |
| Liabilities | 305,000 | 136,000 | | | | | | 441,000 |
| Accumulated Depreciation | 375,000 | 290,000 | (3) 16,000 | (2) 160,000 | | | | 809,000 |
| Common Stock | | | | | | | | |
| Prout Company | 3,000,000 | | | | | | | 3,000,000 |
| Sexton Company | | 1,200,000 | (4) 1,200,000 | | | | | |
| Retained Earnings | | | | | | | | |
| Prout Company | 1,492,000 | | (2) 120,000 | (3) 8,000 | | 1,380,000 | | |
| Sexton Company | | 1,040,000 | (4) 1,040,000 | | | | | |
| Sales | 1,475,000 | 1,110,000 | | | (2,585,000) | | | |
| Equity In Subsidiary Income | 108,000 | | (1) 108,000 | | | | | |
| Totals | 6,755,000 | 3,776,000 | | | | | | |
| Net/Consolidated Income | | | | | 343,800 | | | |
| Noncontrolling Interest in Income (.20 × $135,000 = $27,000) | | | | | (27,000) | | 27,000 * | |
| Controlling Interest in Consolidated Net Income | | | | | 316,800 | 316,800 | | |
| Consolidated Retained Earnings | | | | | | 1,576,800 | | 1,576,800 |
| 1/1 Noncontrolling Interest in Net Assets | | | | (4) 448,000 | | | 448,000 | |
| 12/31 Noncontrolling Interest | | | | | | | 455,000 | 455,000 |
| | | | 2,524,000 | 2,524,000 | | | | |
| Totals | | | | | | | | 6,281,800 |

**Problem 7-12**

**Part A**

PRATHER COMPANY AND SUBSIDIARY
Consolidated Statements Workpaper
For the Year Ended December 31, 2012

| | Prather | Stone | | Eliminations | | | Noncontrolling | Consolidated |
|---|---|---|---|---|---|---|---|---|
| | Company | Company | | Debit | | Credit | Interest | Balances |
| **Income Statement** | | | | | | | | |
| Sales | 1,950,000 | 1,350,000 | | | | | | 3,300,000 |
| Equity in Subsidiary Income | 240,000 | | (1) | 240,000 | | | | |
| Total Revenue | 2,190,000 | 1,350,000 | | | | | | 3,300,000 |
| Cost of Goods Sold | 1,350,000 | 900,000 | | | | | | 2,250,000 |
| Other Expenses | 225,000 | 150,000 | | | (3) | 15,000 | | 360,000 |
| Total Cost & Expenses | 1,575,000 | 1,050,000 | | | | | | 2,610,000 |
| Net /Consolidated Income | 615,000 | 300,000 | | | | | | 690,000 |
| Noncontrolling Interest Income | | | | | | | 63,000 | (63,000) |
| Net Income to Retained Earnings | 615,000 | 300,000 | | 240,000 | | 15,000 | 63,000 | 627,000 |
| | | | | | | | | |
| **Statement of Retained Earnings** | | | | | | | | |
| 1/1 Retained Earnings | | | | | | | | |
| Prather Company | 1,505,400 | | (2) | 120,000 | (3) | 12,000 | | 1,397,400 |
| Stone Company | | 1,038,000 | (4) | 1,038,000 | | | | |
| | | | | | | | | |
| Net Income from above | 615,000 | 300,000 | | 240,000 | | 15,000 | 63,000 | 627,000 |
| Dividends Declared | | | | | | | | |
| Prather Company | (150,000) | | | | | | | (150,000) |
| Stone Company | | (75,000) | | | (1) | 60,000 | (15,000) | |
| 12/31 Retained Earnings | | | | | | | | |
| to Balance Sheet | 1,970,400 | 1,263,000 | | 1,398,000 | | 87,000 | 48,000 | 1,874,400 |

**Problem 7-12 (continued)**

| | Prather | Stone | Eliminations | | Noncontrolling | Consolidated |
|---|---|---|---|---|---|---|
| **Balance Sheet** | Company | Company | Debit | Credit | Interest | Balances |
| Assets | | | | | | |
| Inventory | 498,000 | 225,000 | | | | 723,000 |
| Investment in Stone Company | 1,430,400 | | | (1) 180,000 | | |
| | | | | (4) 1,250,400 | | |
| Plant and Equipment | 2,168,100 | 2,625,000 | (2) 390,000 | | | 5,183,100 |
| Accumulated Depreciation | (900,000) | (612,000) | (3) 30,000 | (2) 540,000 | | (2,022,000) |
| Total Assets | 3,196,500 | 2,238,000 | | | | 3,884,100 |
| | | | | | | |
| Liabilities | 465,600 | 450,000 | | | | 915,600 |
| Capital Stock | | | | | | |
| Prather Company | 760,500 | | | | | 760,500 |
| Stone Company | | 525,000 | (4) 525,000 | | | |
| Retained Earnings from above | 1,970,400 | 1,263,000 | 1,398,000 | 87,000 | 48,000 | 1,874,400 |
| 1/1 Noncontrolling Interest | | | (2) 30,000 | (4) 312,600 | 285,600 | |
| | | | | (3) 3,000 | | |
| 12/3630001 Noncontrolling Interest | | | | | 333,600 | 333,600 |
| Total Liabilities and Equity | 3,196,500 | 2,238,000 | 2,373,000 | 2,373,000 | | 3,884,100 |

* Noncontrolling interest in consolidated income = .20 × ($300,000 + $15,000) = $63,000
Explanations of workpaper entries on separate page

**Problem 7-12 (continued)**

Intercompany Sale of Equipment

|  | Cost | Accumulated Depreciation | Carrying Value | Remaining Life | Depreciation |
|---|---|---|---|---|---|
| Original Cost | $1,350,000 | $540,000 | $ 810,000 | 10 yr | $81,000 |
| Intercompany Selling Price | 960,000 |  | 960,000 | 10 yr | 96,000 |
| Difference | $ 390,000 | $540,000 | $ 150,000 |  | $15,000 |

Explanations of workpaper entries (not required)

|  |  |  |  |
|---|---|---|---|
| (1) | Equity In Subsidiary Income | 240,000 |  |
|  | Dividends Declared (.80)($75,000) |  | 60,000 |
|  | Investment in Stone Company |  | 180,000 |

To reverse the effect of parent company entries during the year for subsidiary dividends and income

|  |  |  |  |
|---|---|---|---|
| (2) | Plant and Equipment | 390,000 |  |
|  | Retained Earnings - Prather Company ($150,000)(.80) | 120,000 |  |
|  | Noncontrolling Interest ($150,000)(.20) | 30,000 |  |
|  | Accumulated Depreciation |  | 540,000 |

To reduce controlling and noncontrolling interests for their respective shares of unrealized intercompany profit at beginning of year, to restore the carrying value of equipment to its book value on the date of the intercompany sale

|  |  |  |  |
|---|---|---|---|
| (3) | Accumulated Depreciation | 30,000 |  |
|  | Other Expenses (Depreciation Expense) |  | 15,000 |
|  | Retained Earnings - Prather Company ($15,000)(.80) |  | 12,000 |
|  | Noncontrolling Interest ($15,000)(.20) |  | 3,000 |

To reverse amount of excess depreciation recorded during year and to recognize an equivalent amount of intercompany profit as realized

|  |  |  |  |
|---|---|---|---|
| (4) | Beginning Retained Earnings –Stone | 1,038,000 |  |
|  | Common Stock – Stone | 525,000 |  |
|  | Investment in Stone Company<br>($960,000 + $290,400*) |  | 1,250,400 |
|  | Noncontrolling Interest [$240,000 + ($1,038,000 - $675,000) x .2] |  | 312,600 |

To eliminate investment account and create noncontrolling interest account.

* (( $1,263,000 - $675,000) × .8) - $180,000 = $290,400 or ($1,038,000 - $675,000) × .8 = $290,400

**Problem 7-12 (continued)**

**Part B**. Calculation of Consolidated Retained Earnings

| | |
|---|---|
| Prather Company's retained earnings on 12/31/12 | $1,970,400 |
| Unrealized profit on downstream sales included therein | 0 |
| Unrealized profit on upstream sales included therein | |
| .8 × ($150,000 - $15,000 - $15,000) | (96,000) |
| Consolidated retained earnings on 12/31/12 | $1,874,400 |

Consolidated Retained Earnings

| | | | |
|---|---|---|---|
| | | Prather Company's Retained Earnings on 12/31/12 | $1,970,400 |
| Prather's share of unrealized gain on upstream sales of equipment from Stone Company ($150,000 - $15,000 - $15,000).8 | 96,000 | | |
| | | Consolidated Retained Earnings | $1,874,400 |

**Problem 7-13**

**Part A**

PADILLA COMPANY AND SUBSIDIARY
Consolidated Statements Workpaper
For the Year Ended December 31, 2013

| | Padilla | Sanchez | Eliminations | | Noncontrolling | Consolidated |
|---|---|---|---|---|---|---|
| | Company | Company | Debit | Credit | Interest | Balances |
| **Income Statement** | | | | | | |
| Sales | 2,555,500 | 1,120,000 | (6) 375,000 | | | 3,300,500 |
| Equity in subsidiary income | 160,650 | | (1) 160,650 | | | |
| Total revenue | 2,716,150 | 1,120,000 | | | | 3,300,500 |
| Cost of goods sold | 1,730,000 | 690,500 | (8) 10,500 | (5) 7,500 | | 2,048,500 |
| | | | | (6) 375,000 | | |
| Expenses | 654,500 | 251,000 | (11) 12,667 | (3) 9,500 | | 908,667 |
| Total cost & expenses | 2,384,500 | 941,500 | | | | 2,957,167 |
| Net/consolidated income | 331,650 | 178,500 | | | | 343,333 |
| Noncontrolling interest in income | | | | | 16,283 * | (16,283) |
| Net income to retained earnings | 331,650 | 178,500 | 558,817 | 392,000 | 16,283 | 327,050 |
| **Statement of Retained Earnings** | | | | | | |
| 1/1 Retained earnings | | | | | | |
| Padilla Company | 666,550 | | (2) 47,500 | (3) 9,500 | | 591,200 |
| | | | (4) 13,500 | | | |
| | | | (5) 6,750 | | | |
| | | | (11) 17,100 | | | |
| Sanchez Company | | 139,500 | (9) 139,500 | | | |
| Net income from above | 331,650 | 178,500 | 558,817 | 392,000 | 16,283 | 327,050 |
| Dividends declared | | | | | | |
| Padilla Company | (100,000) | | | | | (100,000) |
| Sanchez Company | | (60,000) | | (1) 54,000 | (6,000) | |
| 12/31 Retained earnings | | | | | | |
| to balance sheet | 898,200 | 258,000 | 783,167 | 455,500 | 10,283 | 818,250 |

| **Problem 7-13 (continued)** | Padilla | Sanchez | Eliminations | | | | Noncontrolling | Consolidated |
|---|---|---|---|---|---|---|---|---|
| | Company | Company | | Debit | | Credit | Interest | Balances |
| **Balance Sheet** | | | | | | | | |
| Cash | 119,500 | 132,500 | | | | | | 252,000 |
| Accounts receivable | 342,000 | 125,000 | | | (7) | 60,000 | | 407,000 |
| Inventory | 362,000 | 201,000 | | | (8) | 10,500 | | 552,500 |
| Other current assets | 40,500 | 13,000 | | | | | | 53,500 |
| Investment in Sanchez Company | 604,200 | | | | (9) | 497,550 | | |
| | | | | | (1) | 106,650 | | |
| Difference between | | | | | | | | |
| implied and book value | | | (9) | 63,333 | (10) | 63,333 | | |
| Land | 150,000 | | | | (4) | 15,000 | | 135,000 |
| Plant and equipment | 825,000 | 241,000 | (2) | 2,500 | | | | 1,068,500 |
| Accumulated depreciation | (207,000) | (53,500) | (3) | 19,000 | (2) | 50,000 | | (291,500) |
| Manufacturing formula | | | (10) | 63,333 | (11) | 31,667 | | 31,666 |
| Total Assets | 2,236,200 | 659,000 | | | | | | 2,208,666 |
| | | | | | | | | |
| Accounts payable | 295,000 | 32,000 | (7) | 60,000 | | | | 267,000 |
| Other liabilities | 43,000 | 19,000 | | | | | | 62,000 |
| Capital stock | | | | | | | | |
| Padilla Company | 1,000,000 | | | | | | | 1,000,000 |
| Sanchez Company | | 300,000 | (9) | 300,000 | | | | |
| Additional paid-in capital | | | | | | | | |
| Sanchez Company | | 50,000 | (9) | 50,000 | | | | |
| Retained earnings from above | 898,200 | 258,000 | | 783,167 | | 455,500 | 10,283 | 818,250 |
| 1/1 Noncontrolling interest in | | | (4) | 1,500 | (9) | 55,283 | 51,133 | |
| net assets | | | (5) | 750 | | | | |
| | | | (11) | 1,900 | | | | |
| 12/31/ Noncontrolling interest in NA | | | | | | | 61,416 | 61,416 |
| Total liabilities & equity | 2,236,200 | 659,000 | | 1,345,483 | | 1,345,483 | | 2,208,666 |

* Noncontrolling interest in income = .10 × ($178,500 + $7,500 - $10,500 - $12,667) = $16,283
Explanations of the workpaper entries are on a separate page.

**Problem 7-13 (continued)**

Intercompany Sale of Equipment

|  | Cost | Accumulated Depreciation | Carrying Value | Remaining Life | Depreciation |
|---|---|---|---|---|---|
| Original Cost | $100,000 | $50,000 | $50,000 | 5 yr | $10,000 |
| Intercompany Selling Price | 97,500 |  | 97,500 | 5 yr | 19,500 |
| Difference | $ 2,500 | $50,000 | $47,500 |  | $ 9,500 |

Explanations of workpaper entries

|  |  |  |  |
|---|---|---|---|
| (1) | Equity in Subsidiary Income | 160,650 |  |
|  | Investment in Sanchez Company |  | 106,650 |
|  | Dividends Declared (.90)($60,000) |  | 54,000 |
|  | To reverse the effect of parent company entries during the year for subsidiary dividends and income |  |  |
| (2) | Plant and Equipment ($100,000 - $97,500) | 2,500 |  |
|  | Beginning Retained Earnings - Padilla | 47,500 |  |
|  | Accumulated Depreciation |  | 50,000 |
|  | To eliminate unrealized profit on intercompany sale of equipment and to restore equipment to its book value on the date of the intercompany sale |  |  |
| (3) | Accumulated Depreciation | 19,000 |  |
|  | Expenses (Depreciation expense) |  | 9,500 |
|  | Beginning Retained Earnings - Padilla |  | 9,500 |
|  | To reverse excess depreciation recorded during 2013 (.20 × $47,500) |  |  |
| (4) | Beginning Retained Earnings - Padilla Co. (.90 × $15,000) | 13,500 |  |
|  | Noncontrolling Interest (.10 × $15,000) | 1,500 |  |
|  | Land |  | 15,000 |
|  | To eliminate unrealized profit on intercompany sale of land (upstream sale) |  |  |
| (5) | Beginning Retained Earnings - Padilla Co. (.90 × $7,500) | 6,750 |  |
|  | Noncontrolling Interest (.10 × $7,500) | 750 |  |
|  | Cost of Goods Sold |  | 7,500 |
|  | To eliminate intercompany profit in beginning inventory (upstream sale) |  |  |
| (6) | Sales | 375,000 |  |
|  | Cost of Goods Sold (Purchases) |  | 375,000 |
|  | To eliminate intercompany sale |  |  |
| (7) | Accounts Payable | 60,000 |  |
|  | Accounts Receivable |  | 60,000 |
|  | To eliminate intercompany payables and receivables |  |  |
| (8) | Cost of Goods Sold (Ending Inventory – Income Statement) | 10,500 |  |
|  | Inventory |  | 10,500 |
|  | To eliminate unrealized profit in ending inventories |  |  |

**Problem 7-13 (continued)**

| | | | |
|---|---|---|---|
| (9) | Beginning Retained Earnings - Sanchez Co. | 139,500 | |
| | Capital Stock - Sanchez Co. | 300,000 | |
| | Additional Paid-in Capital - Sanchez Co. | 50,000 | |
| | Difference between Implied and Book Value | 63,333 | |
| | Investment in Sanchez ($426,000 + (($139,500 - $60,000) × .90) | | 497,550 |
| | Noncontrolling Interest [$47,333 + ($139,500 – $60,000) x .10] | | 55,283 |
| | To eliminate the investment account and create noncontrolling interest account | | |
| (10) | Manufacturing Formula | 63,333 | |
| | Difference between Implied and Book Value | | 63,333 |
| | To allocate the difference between implied and book value | | |
| (11) | Beginning Retained Earnings - Padilla Co. ($63,333/5 x 1.5) x .90 | 17,100 | |
| | Noncontrolling interest ($63,333/5 x 1.5) x .10 | 1,900 | |
| | Expenses (or COGS) ($63,333/5) | 12,667 | |
| | Manufacturing Formula | | 31,667 |
| | To amortize the difference between implied and book value | | |

Alternative to entries (10) and (11)

| | | | |
|---|---|---|---|
| (10a) | Beginning Retained Earnings - Padilla Co. ($63,333/5 x 1.5) x .90 | 17,100 | |
| | Noncontrolling Interest ($63,333/5 x 1.5) x .10 | 1,900 | |
| | Manufacturing Formula | 31,666 | |
| | Expenses ($63,333/5) | 12,667 | |
| | Difference between Implied and Book Value | | 63,333 |
| | To allocate and amortize the difference between implied and book value | | |
| | ($63,333/5) = $12,667; $63,333 - ($12,667 × 2.5) = $31,666 | | |

| | |
|---|---|
| **Part B.** Padilla Company's retained earnings on 12/31/2013 | $ 898,200 |
| Less intercompany unrealized profit on sale of equipment to Sanchez on 12/31/2011 included therein ($47,500 - $9,500 - $9,500) | (28,500) |
| Unrealized profit on upstream sales of land and merchandise [.9 × ($15,000 + $10,500)] | (22,950) |
| Less cumulative effect of adjustment to date relating to amortization of manufacturing formula ($17,100 + $11,400) | (28,500) |
| Consolidated retained earnings on 12/31/2013 | $ 818,250 |

Alternatively

Consolidated Retained Earnings

| | | | |
|---|---|---|---|
| Unrealized profit on upstream sale in Padilla's ending inventory & land ($15,000 + $10,500)(.90) | 22,950 | Padilla Company's Retained Earnings on 12/31/13 | $898,200 |
| Unrealized gain on downstream sale of equipment to Sanchez Company ($47,500 - $9,500 - $9,500) | 28,500 | | |
| Amortization of the difference between implied and book value ($17,100 + $11,400), where $11,400 = $12,667 × .9 | 28,500 | | |
| | | Consolidated Retained Earnings | $818,250 |

## Problem 7-14

**Part A.**

| | | | |
|---|---|---|---|
| (1) | Gain on Sale of Equipment | 180,000 | |
| | Equipment (net) | | 180,000 |

To eliminate unrealized profit recorded on intercompany sale of equipment and reduce the carrying value on date of sale.

| | | | |
|---|---|---|---|
| (2) | Beginning Retained Earnings - Platt Company (.80 × $250,000) | 200,000 | |
| | Noncontrolling Interest (.20 × $250,000) | 50,000 | |
| | Equipment | | 250,000 |

To reduce the controlling and noncontrolling interest for their share of unrealized intercompany profit on upstream sale at beginning of year, to restore equipment to its book value on date of intercompany sale.

| | | | |
|---|---|---|---|
| (3) | Accumulated Depreciation ($50,000 + $50,000 + $30,000) | 130,000 | |
| | Depreciation Expense ($50,000 + $30,000) | | 80,000 |
| | Beginning Retained Earnings - Platt Company (.8)($50,000) | | 40,000 |
| | Noncontrolling Interest (.2)($50,000) | | 10,000 |

To reverse amount of excess depreciation recorded during current year and to recognize an equivalent amount of intercompany profit as realized [($250,000/5) + ($180,000/6)]

**Part B**. Calculations of Controlling interest in Consolidated Net Income
For Year Ended December 31, 2012

| | | |
|---|---|---|
| Platt Company's net income from independent operations | | $ 400,000 |
| Less unrealized intercompany profit on 2012 sale of equipment to Sloane Company | | (180,000) |
| Plus profit on 1/1/12 sale of equipment considered realized in current year through depreciation | | 30,000 |
| Platt Company's net income from independent operations that has been realized in transactions with third parties | | 250,000 |
| Reported net income of Sloane Company | $ 180,000 | |
| Plus profit on 1/1/11 sales of equipment considered realized in current year through depreciation | 50,000 | |
| Sloane Company's net income that has been realized in transactions with third parties | 230,000 | |
| Platt Company's share thereof | 80% | 184,000 |
| Controlling interest in consolidated net income | | $ 434,000 |

**Problem 7-14 (continued)**

**Part C**. Calculation of 12/31/12 Consolidated Retained Earnings

| | | |
|---|---|---|
| Platt Company's retained earnings on 12/31/12 | | $ 1,800,000 |
| Less the amount of Platt Company's retained earnings that have not been realized in transactions with third parties or through depreciation ($180,000 - $30,000) | | (150,000) |
| Platt Company's retained earnings that have been realized in transactions with third parties or through depreciation | | 1,650,000 |
| Increase in retained earnings of Sloane Company from date of acquisition to 12/31/12 ($640,000 - $300,000) | $ 340,000 | |
| Less unrealized profit included in Sloane's Company's retained earnings on 12/31/12 ($250,000 - $50,000 - $50,000) | (150,000) | |
| Increase in reported retained earnings of Sloane Company since acquisition that has been realized in transactions with third parties | 190,000 | |
| Platt Company's share thereof | 80% | 152,000 |
| Consolidated Retained Earnings 12/31/12 | | $ 1,802,000 |

**Part D**. Calculation of Noncontrolling Interest in the Consolidated Income
For the Year Ended December 31, 2012

| | |
|---|---|
| Sloane Company reported net income | $ 180,000 |
| Plus amount of intercompany profit realized through depreciation during current year | 50,000 |
| Amount included in consolidated income | $ 230,000 |
| Noncontrolling interest in consolidated income (.20 × $230,000) | $ 46,000 |

**Problem 7-15**
**Part A**

PROUT COMPANY AND SUBSIDIARY
Consolidated Statements Workpaper
For the Year Ended December 31, 2012

| | Prout | Sexton | Eliminations | | Noncontrolling | Consolidated |
|---|---|---|---|---|---|---|
| | Company | Company | Debit | Credit | Interest | Balances |
| **Income Statement** | | | | | | |
| Sales | 1,475,000 | 1,110,000 | | | | 2,585,000 |
| Equity in Subsidiary Income | 116,000 | | (1) 116,000 | | | |
| Total Revenue | 1,591,000 | 1,110,000 | | | | 2,585,000 |
| Cost of Goods Sold | 942,000 | 795,000 | | | | 1,737,000 |
| Income Tax Expense | 187,200 | 90,000 | | | | 277,200 |
| Other Expenses | 145,000 | 90,000 | | (3) 8,000 | | 227,000 |
| Total Cost & Expenses | 1,274,200 | 975,000 | | | | 2,241,200 |
| Net /Consolidated Income | 316,800 | 135,000 | | | | 343,800 |
| Noncontrolling Interest in Income | | | | | 27,000 * | (27,000) |
| Net Income to Retained Earnings | 316,800 | 135,000 | 116,000 | 8,000 | 27,000 | 316,800 |
| | | | | | | |
| **Statement of Retained Earnings** | | | | | | |
| 1/1 Retained Earnings | | | | | | |
| Prout Company | 1,380,000 | | | | | 1,380,000 |
| Sexton Company | | 1,040,000 | (4) 1,040,000 | | | |
| Net Income from above | 316,800 | 135,000 | 116,000 | 8,000 | 27,000 | 316,800 |
| Dividends Declared | | | | | | |
| Prout Company | (120,000 ) | | | | | (120,000) |
| Sexton Company | | (100,000 ) | | (1) 80,000 | (20,000) | |
| 12/31 Retained Earnings to Balance Sheet | 1,576,800 | 1,075,000 | 1,156,000 | 88,000 | 7,000 | 1,576,800 |

**Problem 7-15 (continued)**

| | Prout | Sexton | Eliminations | | | | Noncontrolling | Consolidated |
|---|---|---|---|---|---|---|---|---|
| | Company | Company | | Debit | | Credit | Interest | Balances |
| **Balance Sheet** | | | | | | | | |
| Current Assets | 568,000 | 271,000 | | | | | | 839,000 |
| Investment in Sexton Company | 1,716,000 | | (2) | 120,000 | (1) | 36,000 | | |
| | | | | | (3) | 8,000 | | |
| | | | | | (4) | 1,792,000 | | |
| Plant and Equipment | 1,972,000 | 830,000 | (2) | 40,000 | | | | 2,842,000 |
| Accumulated Depreciation | (375,000) | (290,000) | (3) | 16,000 | (2) | 160,000 | | (809,000) |
| Other Assets | 1,000,800 | 1,600,000 | | | | | | 2,600,800 |
| Total Assets | 4,881,800 | 2,411,000 | | | | | | 5,472,800 |
| Other Liabilities | 305,000 | 136,000 | | | | | | 441,000 |
| Capital stock | | | | | | | | |
| Prout Company | 3,000,000 | | | | | | | 3,000,000 |
| Sexton Company | | 1,200,000 | (4) | 1,200,000 | | | | |
| Retained Earnings from above | 1,576,800 | 1,075,000 | | 1,156,000 | | 88,000 | 7,000 | 1,576,800 |
| 1/1 Noncontrolling Interest in Net Assets | | | | | (4) | 448,000 | 448,000 | |
| 12/31 Noncontrolling Interest | | | | | | | 455,000 | 455,000 |
| Total Liabilities & Equity | 4,881,800 | 2,411,000 | | 2,532,000 | | 2,532,000 | | 5,472,800 |

* Noncontrolling interest in consolidated income = .20 × $135,000 = $27,000
Explanations of workpaper entries are on separate page.

**Problem 7-15 (continued)**

| **Schedule to calculate intercompany profit** | |
|---|---|
| Selling Price of Fixed Assets | $360,000 |
| Book Value of Assets [$400,000 × (15/25)] | 240,000 |
| Gain recognized on intercompany sale | $120,000 |
| | |
| Excess Annual Depreciation ($120,000/15) | $8,000 |

Intercompany Sale of Equipment

| | Cost | Accumulated Depreciation | Carrying Value | Remaining Life | Depreciation |
|---|---|---|---|---|---|
| Original Cost | $ 400,000 | $ 160,000 | $ 240,000 | 15 yr | $ 16,000 |
| Intercompany Selling Price | 360,000 | | 360,000 | 15 yr | 24,000 |
| Difference | $ 40,000 | $ 160,000 | $ 120,000 | | $ 8,000 |

Explanation of workpaper entries (not required)

| | | |
|---|---|---|
| (1) Equity in Subsidiary Income | 116,000 | |
| Dividends Declared (.80)($100,000) | | 80,000 |
| Investment in Sexton Company | | 36,000 |
| To reverse the effect of parent company entries during the year for subsidiary dividends and income | | |
| | | |
| (2) Property and Equipment ($400,000 - $360,000) | 40,000 | |
| Investment in Sexton Company | 120,000 | |
| Accumulated Depreciation | | 160,000 |
| To reduce beginning consolidated retained earnings by amount of unrealized profit at the beginning of the year, and to restore the equipment to its book value on the date of intercompany sale | | |
| | | |
| (3) Accumulated Depreciation | 16,000 | |
| Depreciation Expense | | 8,000 |
| Investment in Sexton Company | | 8,000 |
| To reverse amount of excess depreciation recorded during current year and recognize an equivalent amount of intercompany profit as realized | | |
| | | |
| (4) Beginning Retained Earnings – Sexton | 1,040,000 | |
| Common Stocks – Sexton | 1,200,000 | |
| Investment in Sexton Company ($1,716,000 - $36,000 + $120,000 - $8,000) | | 1,792,000 |
| Noncontrolling Interest [$400,000 + ($1,040,000 - $800,000) x .2] | | 448,000 |
| To eliminate investment account and create noncontrolling interest account | | |

## Problem 7-15 (continued)

### Part B

| | | |
|---|---|---|
| (1) Cash | 300,000 | |
| Accumulated Depreciation - Fixed Assets<br>($360,000/15 yrs. × 2 yrs.) | 48,000 | |
| Loss on Sale of Equipment | 12,000 | |
| Plant and Equipment | | 360,000 |
| (2) Investment in Sexton Company | 104,000 | |
| Loss on Sale of Equipment | | 12,000 |
| Gain on Sale of Equipment | | 92,000 |

| | |
|---|---|
| Cost to the affiliated companies | $ 400,000 |
| Accumulated depreciation based on original cost<br>(12/25 × $400,000) | 192,000 |
| Book value to the affiliated companies on 1/1/13 | 208,000 |
| Proceeds from sale to non-affiliate | (300,000) |
| Gain to affiliated companies on sale | $ 92,000 |

(3) No workpaper entries are necessary for 2014 and later years. As of December 31, 2013, the amount of profit recorded by the affiliates on their books [$120,000 - $12,000 = $108,000] is equal to the amount of profit considered realized in the consolidated financial statements [$8,000 + $8,000 + $92,000 = $108,000].

**Part C** The balances are the same as in Problem 7-4

**Problem 7-16**

**Part A**

PRATHER COMPANY AND SUBSIDIARY
Consolidated Statements Workpaper
For the Year Ended December 31, 2012

| | Prather | Stone | Eliminations | | Noncontrolling | Consolidated |
|---|---|---|---|---|---|---|
| | Company | Company | Debit | Credit | Interest | Balances |
| **Income Statement** | | | | | | |
| Sales | 1,950,000 | 1,350,000 | | | | 3,300,000 |
| Equity in Subsidiary Income | 252,000 | | (1) 252,000 | | | |
| Total Revenue | 2,202,000 | 1,350,000 | | | | 3,300,000 |
| Cost of Goods Sold | 1,350,000 | 900,000 | | | | 2,250,000 |
| Other Expenses | 225,000 | 150,000 | | (3) 15,000 | | 360,000 |
| Total Cost & Expenses | 1,575,000 | 1,050,000 | | | | 2,610,000 |
| Net /Consolidated Income | 627,000 | 300,000 | | | | 690,000 |
| Noncontrolling Interest in Income | | | | | 63,000 * | (63,000) |
| Net Income to Retained Earnings | 627,000 | 300,000 | 252,000 | 15,000 | 63,000 | 627,000 |
| **Statement of Retained Earnings** | | | | | | |
| 1/1 Retained Earnings | | | | | | |
| Prather Company | 1,397,400 | | | | | 1,397,400 |
| Stone Company | | 1,038,000 | (5) 1,038,000 | | | |
| Net Income from above | 627,000 | 300,000 | 252,000 | 15,000 | 63,000 | 627,000 |
| Dividends Declared | | | | | | |
| Prather Company | (150,000) | | | | | (150,000) |
| Stone Company | | (75,000) | | (1) 60,000 | (15,000) | |
| 12/31 Retained Earnings to Balance Sheet | 1,874,400 | 1,263,000 | 1,290,000 | 75,000 | 48,000 | 1,874,400 |

**Problem 7-16 (continued)**

| | Prather | Stone | | Eliminations | | | Noncontrolling | Consolidated |
|---|---|---|---|---|---|---|---|---|
| **Balance Sheet** | Company | Company | | Debit | | Credit | Interest | Balances |
| Assets | | | | | | | | |
| Inventory | 498,000 | 225,000 | | | | | | 723,000 |
| Investment in Stone Company | 1,334,400 | | (2) | 120,000 | (1) | 192,000 | | |
| | | | | | (3) | 12,000 | | |
| | | | | | (4) | 1,250,400 | | |
| Plant and Equipment | 2,168,100 | 2,625,000 | (2) | 390,000 | | | | 5,183,100 |
| Accumulated Depreciation | (900,000) | (612,000) | (3) | 30,000 | (2) | 540,000 | | (2,022,000) |
| Total Assets | 3,100,500 | 2,238,000 | | | | | | 3,884,100 |
| | | | | | | | | |
| Liabilities | 465,600 | 450,000 | | | | | | 915,600 |
| Capital Stock | | | | | | | | |
| Prather Company | 760,500 | | | | | | | 760,500 |
| Stone Company | | 525,000 | (4) | 525,000 | | | | |
| Retained Earnings from above | 1,874,400 | 1,263,000 | | 1,290,000 | | 75,000 | 48,000 | 1,874,400 |
| 1/1 Noncontrolling Interest in | | | (2) | 30,000 | (5) | 312,600 | 285,600 | |
| Net Assets | | | | | (3) | 3,000 | | |
| 12/31 Noncontrolling Interest in Net Assets | | | | | | | 333,600 | 333,600 |
| Total Liabilities and Equity | 3,100,500 | 2,238,000 | | 2,385,000 | | 2,385,000 | | 3,884,100 |

* Noncontrolling interest in consolidated income = .20 × ($300,000 + $15,000) = $63,000
Explanations of workpaper entries on separate page.

**Problem 7-16 (continued)**

Intercompany Sale of Equipment

|  | Cost | Accumulated Depreciation | Carrying Value | Remaining Life | Depreciation |
|---|---|---|---|---|---|
| Original Cost | $1,350,000 | $540,000 | $810,000 | 10 yr | $81,000 |
| Intercompany Selling Price | 960,000 |  | 960,000 | 10 yr | 96,000 |
| Difference | $ 390,000 | $540,000 | $150,000 |  | $15,000 |

Explanations of workpaper entries (not required)

|  |  | Debit | Credit |
|---|---|---|---|
| (1) | Equity in Subsidiary Income | 252,000 |  |
|  | Dividends Declared (.80)($75,000) |  | 60,000 |
|  | Investment in Stone Company |  | 192,000 |
|  | To reverse the effect of parent company entries during the year for subsidiary dividends and income |  |  |
| (2) | Plant and Equipment | 390,000 |  |
|  | Investment in Stone Company ($150,000)(.80) | 120,000 |  |
|  | Noncontrolling Interest ($150,000)(.20) | 30,000 |  |
|  | Accumulated Depreciation |  | 540,000 |
|  | To reduce controlling and noncontrolling interests for their respective shares of unrealized intercompany profit at beginning of year, to restore the carrying value of equipment to its book value on the date of the intercompany sale |  |  |
| (3) | Accumulated Depreciation | 30,000 |  |
|  | Other Expenses (Depreciation Expense) |  | 15,000 |
|  | Investment in Stone Company ($15,000)(.8) |  | 12,000 |
|  | Noncontrolling Interest ($15,000)(.2) |  | 3,000 |
|  | To reverse amount of excess depreciation recorded during year and to recognize an equivalent amount of intercompany profit as realized |  |  |
| (4) | Beginning Retained Earnings –Stone | 1,038,000 |  |
|  | Common Stock – Stone | 525,000 |  |
|  | Investment in Stone Company ($960,000 + $290,400*) |  | 1,250,400 |
|  | Noncontrolling Interest [$240,000 + ($1,038,000 - $675,000) × .2] |  | 312,600 |
|  | To eliminate investment account and create noncontrolling interest account |  |  |

* (($1,263,000 - $675,000) × .8) - $180,000 = $290,400, or ($1,038,000 – 675,000) x .8.

**Part B**. Calculation of Consolidated Retained Earnings

|  |  |
|---|---|
| Prather Company's retained earnings on 12/31/12 | $1,874,400 |
| Consolidated retained earnings on 12/31/12 | $1,874,400 |

**Problem 7-17**

**Part A**

PADILLA COMPANY AND SUBSIDIARY
Consolidated Statements Workpaper
For the Year Ended December 31, 2013

| | Padilla | Sanchez | Eliminations | | Noncontrolling | Consolidated |
|---|---|---|---|---|---|---|
| | Company | Company | Debit | Credit | Interest | Balances |
| **Income Statement** | | | | | | |
| Sales | 2,555,500 | 1,120,000 | (6) 375,000 | | | 3,300,500 |
| Equity in Subsidiary income | 156,050 | | (1) 156,050 | | | |
| Total Revenue | 2,711,550 | 1,120,000 | | | | 3,300,500 |
| Cost of Goods Sold | 1,730,000 | 690,500 | (8) 10,500 | (5) 7,500 | | 2,048,500 |
| | | | | (6) 375,000 | | |
| Expenses | 654,500 | 251,000 | (11) 12,667 | (3) 9,500 | | 908,667 |
| Total Cost & Expenses | 2,384,500 | 941,500 | | | | 2,957,167 |
| Net/Consolidated Income | 327,050 | 178,500 | | | | 343,333 |
| Noncontrolling Interest in Income * | | | | | 16,283 | (16,283) |
| Net Income to | | | | | | |
| Retained Earnings | 327,050 | 178,500 | 554,217 | 392,000 | 16,283 | 327,050 |
| | | | | | | |
| **Statement of Retained Earnings** | | | | | | |
| 1/1 Retained Earnings | | | | | | |
| Padilla Company | 591,200 | | | | | 591,200 |
| Sanchez Company | | 139,500 | (9) 139,500 | | | |
| | | | | | | |
| Net Income from above | 327,050 | 178,500 | 554,217 | 392,000 | 16,283 | 327,050 |
| Dividends Declared | | | | | | |
| Padilla Company | (100,000) | | | | | (100,000) |
| Sanchez Company | | (60,000) | | (1) 54,000 | (6,000) | |
| 12/31 Retained earnings | | | | | | |
| to Balance Sheet | 818,250 | 258,000 | 693,717 | 446,000 | 10,283 | 818,250 |

**Problem 7-17 (continued)**

| | Padilla Company | Sanchez Company | | Eliminations Debit | | Eliminations Credit | Noncontrolling Interest | Consolidated Balances |
|---|---|---|---|---|---|---|---|---|
| **Balance Sheet** | | | | | | | | |
| Cash | 119,500 | 132,500 | | | | | | 252,000 |
| Accounts Receivable | 342,000 | 125,000 | | | (7) | 60,000 | | 407,000 |
| Inventory | 362,000 | 201,000 | | | (8) | 10,500 | | 552,500 |
| Other Current Assets | 40,500 | 13,000 | | | | | | 53,500 |
| Investment in Sanchez Company | 524,250 | | (2) | 47,500 | (1) | 102,050 | | 0 |
| | | | (4) | 13,500 | (3) | 9,500 | | |
| | | | (5) | 6,750 | (9) | 497,550 | | |
| | | | (11) | 17,100 | | | | |
| Difference between Implied and Book Value | | | (9) | 63,333 | (10) | 63,333 | | 0 |
| Land | 150,000 | | | | (4) | 15,000 | | 135,000 |
| Plant and Equipment | 825,000 | 241,000 | (2) | 2,500 | | | | 1,068,500 |
| Accumulated Depreciation | (207,000) | (53,500) | (3) | 19,000 | (2) | 50,000 | | (291,500) |
| Manufacturing Formula | | | (10) | 63,333 | (11) | 31,668 | | 31,665 |
| Total Assets | 2,156,250 | 659,000 | | | | | | 2,208,665 |
| | | | | | | | | |
| Accounts Payable | 295,000 | 32,000 | (7) | 60,000 | | | | 267,000 |
| Other Liabilities | 43,000 | 19,000 | | | | | | 62,000 |
| Capital stock | | | | | | | | |
| Padilla Company | 1,000,000 | | | | | | | 1,000,000 |
| Sanchez Company | | 300,000 | (9) | 300,000 | | | | |
| Additional paid-in capital | | | | | | | | |
| Sanchez Company | | 50,000 | (9) | 50,000 | | | | |
| Retained Earnings from above | 818,250 | 258,000 | | 693,717 | | 446,000 | 10,283 | 818,250 |
| Noncontrolling Interest in Net Assets | | | (4) | 1,500 | (9) | 55,283 | 51,132 | |
| | | | (5) | 750 | | | | |
| | | | (11) | 1,901 | | | 61,415 | 61,415 |
| Total Liabilities & Equity | 2,156,250 | 659,000 | | 1,340,884 | | 1,340,884 | | 2,208,665 |

* Noncontrolling interest in income = .10 × ($178,500 + $7,500 - $10,500 - $12,667) = $16,283

**Problem 7-17 (contiued)**

Intercompany Sale of Equipment

| | | Accumulated | | Remaining | |
|---|---|---|---|---|---|
| | Cost | Depreciation | Carrying Value | Life | Depreciation |
| Original Cost | $100,000 | $50,000 | $50,000 | 5 yr | $10,000 |
| Intercompany Selling Price | 97,500 | _______ | 97,500 | 5 yr | 19,500 |
| Difference | $ 2,500 | $50,000 | $47,500 | | $ 9,500 |

Explanations of workpaper entries

| | | | |
|---|---|---|---|
| (1) | Equity in Subsidiary Income | 156,050 | |
| | Investment in Sanchez Company | | 102,050 |
| | Dividends Declared (.90)($60,000) | | 54,000 |

To reverse the effect of parent company entries during the year for subsidiary dividends and income

| | | | |
|---|---|---|---|
| (2) | Plant and Equipment ($100,000 - $97,500) | 2,500 | |
| | Investment in Sanchez Company ($50,000 - $2,500) | 47,500 | |
| | Accumulated Depreciation | | 50,000 |

To eliminate unrealized profit on intercompany sale of equipment and to restore plant and equipment to its book value on the date of intercompany sale

| | | | |
|---|---|---|---|
| (3) | Accumulated Depreciation | 19,000 | |
| | Expenses (Depreciation expense) | | 9,500 |
| | Investment in Sanchez Company | | 9,500 |

To reverse excess depreciation recorded during 2013 (.20 × $47,500)

| | | | |
|---|---|---|---|
| (4) | Investment in Sanchez Company (.90 × $15,000) | 13,500 | |
| | Noncontrolling Interest (.10 × $15,000) | 1,500 | |
| | Land | | 15,000 |

To eliminate unrealized profit on intercompany sale of land (upstream sale)

| | | | |
|---|---|---|---|
| (5) | Investment in Sanchez Company (.90 × $7,500) | 6,750 | |
| | Noncontrolling Interest (.10 × $7,500) | 750 | |
| | Cost of Goods Sold | | 7,500 |

To eliminate intercompany profit in beginning inventory (upstream sale)

| | | | |
|---|---|---|---|
| (6) | Sales | 375,000 | |
| | Cost of Goods Sold (Purchases) | | 375,000 |

To eliminate intercompany sale

| | | | |
|---|---|---|---|
| (7) | Accounts Payable | 60,000 | |
| | Accounts Receivable | | 60,000 |

To eliminate intercompany payables and receivables

**Problem 7-17 (continued)**

| | | | |
|---|---|---|---|
| (8) | Cost of Goods Sold (Ending Inventory – Income Statement) | 10,500 | |
| | Inventory | | 10,500 |
| | To eliminate unrealized profit in ending inventories | | |
| | | | |
| (9) | Beginning Retained Earnings - Sanchez Co. | 139,500 | |
| | Capital Stock - Sanchez Co. | 300,000 | |
| | Additional Paid-in Capital - Sanchez Co. | 50,000 | |
| | Difference between Implied and Book Value | 63,333 | |
| | Investment in Sanchez ($426,000 + (($139,500 - $60,000) × .9) | | 497,550 |
| | Noncontrolling Interest [$47,333 + ($139,500 – $60,000) x .10] | | 55,283 |
| | To eliminate the investment account and create noncontrolling interest account | | |
| | | | |
| (10) | Manufacturing Formula | 63,333 | |
| | Difference between Implied and Book Value | | 63,333 |
| | To allocate the difference between implied and book value | | |
| | | | |
| (11) | Investment in Sanchez Company ($11,400 × 1.5) | 17,100 | |
| | Noncontrolling Interest ($1,267 x 1.5) | 1,901 | |
| | Expenses ($63,333/5) | 12,667 | |
| | Manufacturing Formula | | 31,668 |
| | To amortize the difference between implied and book value | | |

Alternative to entries (10) and (11)

| | | | |
|---|---|---|---|
| (10a) | Investment in Sanchez Company ($11,400 × 1.5) | 17,100 | |
| | Noncontrolling Interest | 1,901 | |
| | Manufacturing Formula | 31,665 | |
| | Expenses ($63,333/5) | 12,667 | |
| | Difference between Implied and Book Value | | 63,333 |
| | To allocate and amortize the difference between implied and book value | | |
| | ($63,333/5) = $12,667; $63,333 - ($12,667 × 2.5) = $31,665 | | |

| | |
|---|---|
| **Part B.** Padilla Company's retained earnings on 12/31/2013 | $ 818,250 |
| Consolidated retained earnings on 12/31/2013 | $ 818,250 |

**Problem 7 - 18A**

**Part A**

| | | | |
|---|---|---|---|
| ( 1 ) | Gain on Sale of Equipment | 100,000 | |
| | Equipment (net) | | 100,000 |
| | To eliminate unrealized profit recorded<br>on intercompany sale of equipment<br>and reduce carrying value of equipment<br>to its book value on date of intercompany sale | | |
| ( 2 ) | Accumulated Depreciation | 25,000 | |
| | Depreciation Expense | | 25,000 |
| | To reverse amount of excess depreciation<br>recorded during year and to recognize<br>an equivalent amount of intercompany<br>profit as realized ( $100,000 / 4 ) | | |
| ( 3 ) | Deferred Tax Asset | 30,000 | |
| | Income Tax Expense | | 30,000 |
| | To defer income tax paid or accrued by the<br>selling affiliate on unrealized intercompany<br>profit in equipment at the end of the year<br>.4 × ( $100,000 - $25,000 ) | | |
| ( 4 ) | Sales | 200,000 | |
| | Cost of Goods Sold (purchases) | | 200,000 |
| | To eliminate intercompany sales | | |
| ( 5 ) | Cost of Goods Sold | 10,000 | |
| | Inventory ( Balance Sheet ) | | 10,000 |
| | To eliminate intercompany profit in<br>ending inventory | | |
| ( 6 ) | Deferred Tax Asset | 4,000 | |
| | Income Tax Expense | | 4,000 |
| | To defer income tax paid or accrued by the<br>selling affiliate on unrealized intercompany<br>profit in ending inventory ( .4 × $10,000 ) = $4,000. | | |
| ( 7 ) | Income Tax Expense | 16,320 | |
| | Deferred Income Tax Liability | | 16,320 |
| | To recognize income tax consequence<br>of Sells undistributed income.<br>$300,000 - [ .6 × ( $100,000 - $25,000 ) ] = $255,000<br>$255,000 × .80 × .20 × .40 = $16,320 | | |

**Problem 7 - 18A (continued)**

| | | |
|---|---|---|
| ( 8 ) Common Stock - Sells Co. | 1,200,000 | |
| Retained Earnings - Sells Co. | 400,000 | |
| Investment in Sells Co. | | 1,600,000 |
| To eliminate investment account | | |

**Part B.** Calculation of Controlling Interest in Consolidated Net Income
For Year Ended December 31, 2011

| | | |
|---|---|---|
| Peer Company's net income from independent operations | | $ 800,000 |
| Less after-tax unrealized intercompany profit on 2011 sales included in ending inventory ( .60 × $10,000 ) | | (6,000) |
| Peer Company's net income from independent operations that has been realized in transactions with third parties | | 794,000 |
| Reported net income of Sells Company | $300,000 | |
| Less after-tax unrealized profit on 1/2/11 sale of equipment to Peer Company ( .60 × $100,000 ) | (60,000) | |
| Plus after-tax profit on 1/2/11 sale of equipment considered realized in current year through depreciation ( .60 × $25,000 ) | 15,000 | |
| Sells Company's net income that has been realized in transactions with third parties | $ 255,000 | |
| Peer Company's share | 80% | 204,000 |
| Less income tax consequence of undistributed income of Sells Company for 2011 that has been realized in transactions with third parties ( $255,000 × .80 × .20 × .40 ) | | (16,320) |
| Controlling interest in consolidated net income | | $ 981,680 |

**Part C.** Calculation of Noncontrolling Interest in Consolidated Income for 2011

| | |
|---|---|
| Sells reported net income | $ 300,000 |
| Less after-tax unrealized profit on 1/2/11 sale of equipment to Peer ( .60 × $100,000 ) | (60,000) |
| Plus after-tax profit on 1/2/11 sale realized through depreciation ( .60 × $25,000 ) | 15,000 |
| Sells Company's income that is included in 2011 consolidated income | $ 255,000 |

| | |
|---|---|
| Noncontrolling interest in consolidated income ( .2 × $255,000 ) | $ 51,000 |

# CHAPTER 8

## ANSWERS TO QUESTIONS

1. The three types of transactions that result in a change in a parent company's ownership interest are:
   a. The parent company may buy additional shares of subsidiary stock or sell a portion of its holdings;
   b. The subsidiary may issue additional shares of stock to outsiders;
   c. The subsidiary may acquire or reissue treasury shares from or to the noncontrolling shareholders or the parent company

2. The date of acquisition of subsidiary stock is important under the purchase method because subsidiary retained earnings accumulated prior to the date of acquisition constitute a portion of the equity acquired by the parent company, whereas the parent's share of subsidiary retained earnings accumulated after acquisition is a part of consolidated retained earnings.

3. On the date that control is achieved, all previous purchases are revalued to reflect the market value on the "acquisition date," which is the date that control is achieved. Thus, they all have the same basis.

4. The correct accounting depends on whether the parent retains control, or maintains some ownership but surrenders control. If the parent retains control, no gain or loss is reflected in the Income Statement. Instead, an adjustment is made to contributed capital. If the parent surrenders control, the entire interest is adjusted to fair value, and a gain or loss reflected in the Income Statement on all shares owned prior to the sale.

5. A loss would be reported because the total of the $5 per share gain related to (1) the undistributed profits of EZ Company from the date of acquisition to the beginning of the year of sale and (2) the undistributed profit of EZ Company from the beginning of the year of sale to the date of sale exceeds the $5 per share overall gain. Thus, the total assigned to the first two components of gain exceed the total gain. The other market factors effect (the third component) produced a loss.

6. If a parent company owns less than 100% of a subsidiary and purchases an entire new issue of common stock directly from the subsidiary, either (1) the preemptive right has been waived previously, or (2) the noncontrolling stockholders elected not to exercise their rights.

7. Regardless of whether the issuance results in an increase or a decrease in the book value of the parent's share of the subsidiary's equity, the correct accounting is to adjust the contributed capital of the controlling interest

8.

| | Noncontrolling Interest | |
|---|---|---|
| Situation | Total Book Value | Percent of Ownership |
| (a) | No Change | Decrease |
| (b) | Decrease | Decrease |
| (c) | Increase | Decrease |
| (d) | Increase | Increase |

## BUSINESS ETHICS

1. This is an awkward situation. One strategy would be to wait a reasonable period of time, and check to see if anything has changed (have the entries been documented, adjusted, reversed, etc.?) If nothing has been done, mention it to the supervisor again. If he (she) is unresponsive this time, tactfully bring up your concern with a higher-level supervisor.

## ANSWERS TO EXERCISES

### Exercise 8-1

| | | | |
|---|---|---|---|
| **Part A** | Investment in Sanno Company | 262,350 | |
| | Cash | | 262,350 |
| | Loss on Revaluation* | 4,800 | |
| | Investment in Sanno Company | | 4,800 |
| | To adjust the first purchase to fair value | | |
| | *[$262,350/9,900 – (($46,000+$6,500)/1,800)] x 1,800 = - $4,800 | | |
| | where $6,500 = ($85,000 - $20,000)×0.10, (1,800/18,000=10%) | | |
| | Loss on Revaluation* | 4,500 | |
| | Investment in Sanno Company | | 4,500 |
| | To adjust the second purchase to fair value | | |
| | *[($262,350/9,900) – (($95,000+$28,750)/4,500)] x 4,500 = -$4,659 | | |
| | where $28,750 = ($85,000 + $30,000)×0.25, (4,500/18,000=25%) | | |
| | Cash | 45,000 | |
| | Dividend Income ($50,000 × (1,800 + 4,500 + 9,900)/(18,000)) | | 45,000 |
| **Part B** | Dividend Income | 45,000 | |
| | Dividends Declared - Sanno | | 45,000 |
| | Investment in Sanno Company | 35,250 | |
| | Retained Earnings - Peck | | 35,250 |
| | To establish reciprocity/convert to equity | | |
| | [(.10 × ($85,000 –$20,000)+ (.25 × ($85,000 +$30,000)) ] | | |
| | Common Stock - Sanno Company(18,000 × $20) | 360,000 | |
| | Retained Earnings - Sanno Company (1/1) | 85,000 | |
| | Difference between Implied and Book Value | 32,000 | |
| | Investment in Sanno Company* | | 429,300 |
| | Noncontrolling interest | | 47,700 |
| | To eliminate investment account and create noncontrolling interest account | | |
| | * $429,000 = 46,000+95,000+262,350-4,800-4,500 + 35,250 | | |
| | Goodwill | 32,000 | |
| | Difference between Implied and Book Value | | 32,000 |

**Exercise 8-1 (continued)**

Computation and Allocation of Difference between Implied and Book Value Acquired

| | Parent Share | Non-Controlling Share | Entire Value |
|---|---|---|---|
| Purchase price and implied value* | **$429,300** | **47,700** | 477,000 |
| Less: Book value of equity acquired: | 400,500 | 44,500 | **445,000** |
| | | | |
| Difference between implied and book value | 28,800 | 3,200 | **32,000** |
| Goodwill | (28,800) | (3,200) | **(32,000)** |
| Balance | - 0 - | - 0 - | - 0 - |

16,200 shares × $262,350/9,900 = $429,300 or

$46,000+$95,000 + $262,350 + $35,250 - $4,800 - $4,500 = $429,300

**Exercise 8-2**

January 1, 2011

| | | |
|---|---|---|
| Investment in Serbin Company | 220,000 | |
| Cash | | 220,000 |

Note: The $9,333 transfer to paid in capital is handled in consolidation.

April 1, 2011

| | | |
|---|---|---|
| Cash | 260,000 | |
| Investment in Serbin Company ((21,600/72,000) × $490,000) | | 147,000 |
| Additional Contributed Capital | | 113,000 |

September 30, 2011

| | | |
|---|---|---|
| Cash | 16,750 | |
| Dividend Income (.67* × $25,000) | | 16,750 |

* .67 = (72,000 + 30,000 -21,600)÷120,000

**Exercise 8-3**

**Part A**

| | | |
|---|---|---|
| Investment in Serbin Company | 10,920 | |
| Retained Earnings 1/1 - Papke Company | | 10,920 |

To establish reciprocity to 1/1/2011 (.6 × .7 × ($201,000 - $175,000)

| | | |
|---|---|---|
| Cost of Shares (21,600/72,000 × $490,000) | | $147,000 |
| Plus: Undistributed Income: | | |
| (A) Change in Retained Earnings from the date of acquisition (1/1/10) to the beginning of the year (1/1/11) | | |
| ($201,000 - $175,000) | $26,000 | |
| Ownership percentage sold | 18% | 4,680 |
| (B) Earnings from beginning of current year to the the date of sale (1/1/11 to 7/1/11) | 15,000 | |
| Ownership percentage sold | 18% | 2,700 |
| Adjusted cost of shares sold | | $154,380 |

| | |
|---|---|
| Selling price of shares | $260,000 |
| Adjusted cost of shares sold | 154,380 |
| Additional paid in capital – Papke Company | $105,620 |
| Paid in capital already recorded on Papke Company books | 113,000 |
| Decrease needed to Paid in Capital – Papke Company | 7,380 |

| | | |
|---|---|---|
| Additional Contributed Capital | 4,680 | |
| Retained Earnings 1/1 - Papke Company | | 4,680 |

To adjust additional contributed capital for the portion for earnings accruing to the shares sold included in consolidated income in prior years (($201,000 - $175,000) × .18)

| | | |
|---|---|---|
| Additional Contributed Capital ($15,000 × .18) | 2,700 | |
| Subsidiary Income Sold | | 2,700 |

To adjust for current Year's income sold to the noncontrolling stockholders ($15,000 × .18)

**Exercise 8-3 (continued)**

| | | |
|---|---|---|
| Dividend Income | 16,750 | |
| Dividends Declared - Serbin Company | | 16,750 |

To eliminate intercompany dividends on the remaining shares owned (80,400/120,000 × $25,000) = (.67 × $25,000) = 16,750

| | | |
|---|---|---|
| Common Stock - Serbin Company | 600,000 | |
| Retained Earnings - Serbin | 201,000 | |
| Difference between Implied and Book Value | 41,667 | |
| Additional Contributed Capital- Papke[a] | 9,333 | |
| Investment in Serbin Company | | 573,920 |
| Noncontrolling interest[b] | | 278,080 |

To eliminate investment account and create noncontrolling interest account

| | | |
|---|---|---|
| Goodwill | 41,667 | |
| Difference between Implied and Book Value | | 41,667 |

Computation and Allocation of Difference between Implied and Book Value Acquired

| | Parent Share | Non-Controlling Share | Entire Value |
|---|---|---|---|
| Purchase price and implied value | **$490,000** | **326,667** | 816,667 |
| Less: Book value of equity acquired: | | | |
| Common Stock | (360,000) | (240,000) | **(600,000)** |
| Retained Earnings | (105,000) | (70,000) | **(175,000)** |
| Difference between implied and book value | 25,000 | 16,667 | **41,667** |
| Goodwill | (25,000) | (16,667) | **(41,667)** |
| Balance | - 0 - | - 0 - | - 0 - |

| | | |
|---|---|---|
| [a] Price paid for 25% interest | | 220,000 |
| Less interest acquired: | | |
| Common Stock (25% x 600,000) | 150,000 | |
| Retained Earnings (25% x $201,000) | 50,250 | |
| Goodwill (25% x $41,667) | 10,417 | (210,667) |
| Adjustment to Additional Contributed Capital – Papke | | **9,333** |

[b] 33% x 816,667 + 33% x ($201,000-$175,00) = $278,080 or

$326,667 – $210,667 + 40% x ($201,000-$175,000) + $154,380 - $2,700 = $278,080

**Part B** $278,080 + 33% x ($60,000 - $25,000) = $289,630

**Exercise 8-4**

**Part A 2010**

| | | |
|---|---|---|
| Investment in Sanno Company | 95,000 | |
| Cash | | 95,000 |
| | | |
| Retained Earnings | 5,000 | |
| Investment in Sanno Company | | 5,000 |
| (.10 of $50,000 decrease in Sanno Company retained earnings during 2009) | | |
| | | |
| Investment in Sanno Company | 40,250 | |
| Equity in Investee Income (.35 × $115,000) | | 40,250 |

**2011**

| | | |
|---|---|---|
| Investment in Sanno Company | 262,350 | |
| Cash | | 262,350 |
| | | |
| Loss on Revaluation* | 4,800 | |
| Investment in Sanno Company | | 4,800 |
| To adjust the first purchase to fair value | | |
| *[$262,350/9,900 – (($46,000+$6,500)/1,800) ] x 1,800 = - $4,800 | | |
| where $6,500 = ($85,000 - $20,000)×0.10, (1,800/18,000=10%) | | |
| | | |
| Loss on Revaluation * | 4,500 | |
| Investment in Sanno Company | | 4,500 |
| To adjust the second purchase to fair value | | |
| *[($262,350/9,900) – (($95,000+$28,750)/4,500) ] x 4,500 = -$4,659 | | |
| where $28,750 = ($85,000 + $30,000)×0.25, (4,500/18,000=25%) | | |
| | | |
| Cash | 45,000 | |
| Investment in Sanno Company (.90 × $50,000 subsidiary dividend) | | 45,000 |
| | | |
| Investment in Sanno Company | 121,500 | |
| Equity in Subsidiary Income (.90 × $135,000) | | 121,500 |

**Part B**

| | | |
|---|---|---|
| Equity in Subsidiary Income | 121,500 | |
| Dividends Declared - Sanno | | 45,000 |
| Investment in Sanno Company | | 76,500 |
| | | |
| Common Stock - Sanno | 360,000 | |
| 1/1 Retained Earnings - Sanno | 85,000 | |
| Difference between Implied and Book Value | 32,000 | |
| Investment in Sanno Company* | | 429,300 |
| Noncontrolling interest | | 47,700 |
| * $403,350- $5,000 + $40,250 - $45,000 + $121,500 - $76,500 - $4,800 - $4,500 | | |
| | | |
| Goodwill | 32,000 | |
| Difference between Implied and Book Value | | 32,000 |

**Exercise 8-5**

**Part A 2010**

| | | |
|---|---|---|
| Investment in Serbin Company | 490,000 | |
| Cash | | 490,000 |
| | | |
| Cash | 12,000 | |
| Investment in Serbin Company (.60 × $20,000 subsidiary dividend) | | 12,000 |
| | | |
| Investment in Serbin Company | 27,600 | |
| Equity in Subsidiary Income (.60 × $46,000 subsidiary income) | | 27,600 |

**2011**

| | | |
|---|---|---|
| Investment in Serbin Company | 210,667 | |
| Additional Paid in Capital – Papke Company [a] | 9,333 | |
| Cash | | 220,000 |

| | | |
|---|---|---|
| [a] Price paid for 25% interest | | 220,000 |
| Less interest acquired: | | |
| Common Stock (25% x 600,000) | 150,000 | |
| Retained Earnings (25% x $201,000) | 50,250 | |
| Goodwill (25% x $41,667) | 10,417 | (210,667)* |
| Adjustment to Additional Contributed Capital – Papke | | **9,333** |

* or 25% of the total carrying value of Serbin Company, or ($490,000/.60) plus the change in retained earnings for 2008 of $26,000), or (25%)($842,667) = $210,667.

| | | |
|---|---|---|
| Investment in Serbin Company | 12,750 | |
| Equity in Subsidiary Income (.85 × $15,000 income for 1st three months) | | 12,750 |
| | | |
| Cash | 260,000 | |
| Investment in Serbin Company* | | 154,380 |
| Additional Contributed Capital | | 105,620 |

| | | |
|---|---|---|
| Cost of first purchase (60%) | | $490,000 |
| 2010 subsidiary income (.60 × $46,000) | | 27,600 |
| 2010 subsidiary dividends (.60 × $20,000) | | (12,000) |
| 2011 subsidiary income to April 1 (.60 × $15,000) | | 9,000 |
| Total | | 514,600 |
| Portion sold (21,600/72,000) | × .30 | |
| Carrying value of investment sold | | $154,380 |

| | | |
|---|---|---|
| Cash | 16,750 | |
| Investment in Serbin Company (.67** × $25,000 subsidiary dividend)<br>** .67 =(72,000 + 30,000 -21,600)÷120,000 | | 16,750 |
| | | |
| Investment in Serbin Company | 30,150 | |
| Equity in Subsidiary Income [.67 × ($60,000 - $15,000)] | | 30,150 |

**Part B**

| | | |
|---|---|---|
| Equity in Subsidiary Income ($12,750 + $30,150) | 42,900 | |
| Subsidiary Income Sold ($15,000 × .60 × .30) | | 2,700 |
| Dividends Declared – Serbin ($25,000 × .67) | | 16,750 |
| Investment in Serbin Company | | 23,450 |

**Exercise 8-5 (continued)**

| | | |
|---|---|---|
| Common Stock - Serbin | 600,000 | |
| 1/1 Retained Earnings – Serbin | 201,000 | |
| Difference between Implied and Book Value | 41,667 | |
| Investment in Serbin Company | | 564,587 |
| Noncontrolling interest [b] | | 278,080 |
| | | |
| Goodwill | 41,667 | |
| Difference between Implied and Book Value | | 41,667 |

Computation and Allocation of Difference between Implied and Book Value Acquired

| | Parent Share | Non-Controlling Share | Entire Value |
|---|---|---|---|
| Purchase price and implied value | **$490,000** | **326,667** | 816,667 |
| Less: Book value of equity acquired: | | | |
| Common Stock | (360,000) | (240,000) | **(600,000)** |
| Retained Earnings | (105,000) | (70,000) | **(175,000)** |
| | | | |
| Difference between implied and book value | 25,000 | 16,667 | **41,667** |
| Goodwill | (25,000) | (16,667) | **(41,667)** |
| Balance | - 0 - | - 0 - | - 0 - |

| | | |
|---|---|---|
| [a] Price paid for 25% interest | | 220,000 |
| Less interest acquired: | | |
| Common Stock (25% × 600,000) | 150,000 | |
| Retained Earnings (25% × $201,000) | 50,250 | |
| Goodwill (25% × $41,667) | 10,417 | (210,667) |
| Adjustment to Additional Contributed Capital – Papke | | **9,333** |

[b] 33% × 816,667 + 33% × ($201,000-$175,00) = $278,080 or

$326,667 – $210,667 + 40% × ($201,000-$175,000) + $154,380 - $2,700 = $278,080

**Exercise 8-6**

| | | | |
|---|---|---|---|
| **Part A** | Investment in Sime Company ($1.50×250,000 shares) | 375,000 | |
| | Cash | | 375,000 |
| | New percentage of ownership is 712,500/750,000 = 95% | | |
| | | | |
| **Part B** | Dividend Income (.95 × $30,000) | 28,500 | |
| | Dividends Declared - Sime | | 28,500 |
| | | | |
| | Investment in Sime Company | 83,250 | |
| | Retained Earnings 1/1 - Pace | | 83,250 |
| | To establish reciprocity (.925 × ($150,000 - $60,000)) | | |

**Exercise 8-6 (continued)**

| | | |
|---|---|---|
| Common Stock - Sime | 750,000 | |
| Other Contributed Capital – Sime ($40,000 + 0.50 × $250,000) | 165,000 | |
| Retained Earnings 1/1 - Sime | 150,000 | |
| Difference between Implied and Book Value ($578,125/.925 –$600,000) | 25,000 | |
| Additional Contributed Capital - Pace | 875 | |
| Investment in Sime | | 1,036,375 |
| Noncontrolling Interest [$46,875*+ ($150,000- $60,000) × .075 +$875] | | 54,500 |
| | | |
| Land | 25,000 | |
| Difference between Implied and Book Value | | 25,000 |

*$578,125/.925 –$578,125 = $46,875

**Pace Company's share of Sime Company's equity:

| | |
|---|---|
| Before new purchase (.925 × $690,000) | $ 638,250 |
| After new purchase (.95 × ($690,000 + $375,000)) | 1,011,750 |
| Stockholders equity purchased | 373,500 |
| Plus: Goodwill purchased ($25,000× 2.5%) | 625 |
| Total carrying value acquired | 374,125 |
| Cost | 375,000 |
| Change in paid in capital (decrease to Pace) | $ 875 |

**Exercise 8-7**

| | | | |
|---|---|---|---|
| **Part A** | Investment in Sime Company | 325,000 | |
| | Cash ($1.30 × 250,000) | | 325,000 |
| | | | |
| **Part B** | Dividend Income (.95 × $30,000) | 28,500 | |
| | Dividends Declared - Sime | | 28,500 |
| | | | |
| | Investment in Sime Company | 83,250 | |
| | Retained Earnings 1/1 - Pace | | 83,250 |
| | To establish reciprocity (.925 × $150,000 - $60,000) | | |
| | | | |
| | Common Stock - Sime | 750,000 | |
| | Other Contributed Capital – Sime ($40,000 + 0.30 × $250,000)) | 115,000 | |
| | Retained Earnings 1/1 - Sime | 150,000 | |
| | Difference between Implied and Book Value ($578,125/.925 –$600,000) | 25,000 | |
| | Investment in Sime | | 986,375 |
| | Noncontrolling Interest [$46,875 + ($150,000- $60,000) × .075 - $1,625] | | 52,000 |
| | Additional Contributed Capital - Pace | | 1,625 |
| | | | |
| | Land | 25,000 | |
| | Difference between Implied and Book Value | | 25,000 |

*$578,125/.925 –$578,125 = $46,875

**Exercise 8-7 (continued)**

** Pace Company’s share of Sime Company’s equity:

| | |
|---|---|
| Before new purchase (.925 × $690,000) | $638,250 |
| After new purchase (.95 × ($690,000 + $325,000)) | 964,250 |
| Stockholders equity purchased | 326,000 |
| Plus: Goodwill purchased ($25,000 × 2.5%) | 625 |
| Carrying value acquired | 326,625 |
| Cost | 325,000 |
| Change in paid in capital (increase to Pace) | ($1,625) |

**Exercise 8-8**

**Part A**

Cost, Partial Equity, and Complete Equity Methods

| | | |
|---|---|---|
| Additional Contributed Capital* | 880 | |
| Investment in Skon Company | | 880 |

* Padilla Company’s share of Skon Company’s equity:

| | |
|---|---|
| Before sale to noncontrolling shareholders (.8 × $170,500) | $136,400 |
| After sale to noncontrolling shareholders (.64** × ($170,500 + $45,000) | 137,920 |
| Increase in Padilla Company’s share | $1,520 |
| Less goodwill sold | (2,400) |
| | (880) |

** (.80 × 60,000)/(60,000 + 15,000) = .64

Alternative solution

| | Padilla | NCI | Total | Notes: |
|---|---|---|---|---|
| Implied value 1/1/09 | 132,000 | 33,000 | 165,000 | (132,000/.80) |
| Book value – Skon | 120,000 | 30,000 | 150,000 | (common stock and RE) |
| Excess | 12,000 | 3,000 | 15,000 | |
| To Land | -12,000 | -3,000 | -15,000 | |
| | | | | |
| Beginning carrying value | 132,000 | 33,000 | 165,000 | |
| Change in RE in 2009 | 16,400 | 4,100 | 20,500 | ($50,500 - $30,000) |
| Carrying value 1/1/10 | 148,400 | 37,100 | 185,500 | |
| | | | | |
| New issue by Skon | ______ | 45,000 | 45,000 | No participation by Padilla |
| Carry value before adjustment | 148,400 | 82,100 | 230,500 | |
| | | | | |
| Carry value based on % owned | 147,520 | 82,980 | 230,500 | (64% to Padilla, 36% NCI) |
| Adjustment to paid in capital | -880 | +880 | 0 | |

**Exercise 8-8 (continued)**

**Part B**

Cost Method

| | | |
|---|---|---|
| Investment in Skon Company | 16,400 | |
| Retained Earnings 1/1 - Padilla Company | | 16,400 |
| To establish reciprocity/convert to equity .8 × ($50,500 - $30,000) | | |

| | | |
|---|---|---|
| Common Stock - Skon Company | 150,000 | |
| Other Contributed Capital - Skon Company | 15,000 | |
| Retained Earnings - Skon | 50,500 | |
| Difference between Implied and Book Value | 15,000 | |
| Investment in Skon Company ($132,000 - $880 + $16,400) | | 147,520 |
| Noncontrolling interest** | | 82,980 |

** ($132,000/.8 - $132,000) + ($50,500 – $30,000) x .2 + $45,000 + $880

| | | |
|---|---|---|
| Land | 15,000 | |
| Difference between Implied and Book Value | | 15,000 |

Partial Equity and Complete Equity Methods

| | | |
|---|---|---|
| Equity Income ($10,000)(.64) | 6,400 | |
| Investment in Skon Company | | 6,400 |

| | | |
|---|---|---|
| Common Stock - Skon Company | 150,000 | |
| Other Contributed Capital - Skon Company | 15,000 | |
| Retained Earnings - Skon | 50,500 | |
| Difference between Implied and Book Value | 15,000 | |
| Investment in Skon Company | | 147,520 |
| Noncontrolling interest | | 82,980 |

| | | |
|---|---|---|
| Land | 15,000 | |
| Difference between Implied and Book Value | | 15,000 |

## ANSWERS TO PROBLEMS

### Problem 8-1

### Part A

Computation and Allocation of Difference between Implied and Book Value Acquired

Fair value price = $1,890,000/135,000 shares = $14/share

| | | |
|---|---|---|
| Fair value of 1/1/10 shares (30,000 shares at $14/share) | | $420,000 |
| Cost of 30,000 shares (10% ownership) | 365,000 | |
| Change in retained earnings (630,000-260,000)(10%) | 37,000 | |
| Adjusted carrying value of shares | | 402,000 |
| Increase to fair value | | $18,000 |

| | | |
|---|---|---|
| Fair value of 1/1/11 shares (75,000 shares at $14/share) | | $1,050,000 |
| Cost of 75,000 shares (25% ownership) | 960,000 | |
| Change in retained earnings (630,000-540,000)(25%) | 22,500 | |
| Adjusted carrying value of shares | | 937,500 |
| Increase to fair value | | $112,500 |

| | Parent Share | Non-Controlling Share | Entire Value |
|---|---|---|---|
| Fair value of 1/1/10 purchase ($14/share) | 420,000 | | |
| Fair value of 1/1/11 purchase ($14/share) | 1,050,000 | | |
| Purchase price 1/1/12 purchase ($14/share) | 1,890,000 | | |
| Purchase price and implied value* | **$3,360,000** | **840,000** | 4,200,000 |
| Less: Book value of equity acquired: | | | |
| Common Stock | (2,400,000) | (600,000) | **(3,000,000)** |
| Retained Earnings | (504,000) | (126,000) | **(630,000)** |
| | | | |
| Difference between implied and book value | 456,000 | 114,000 | **570,000** |
| Goodwill | (456,000) | (114,000) | **(570,000)** |
| Balance | - 0 - | - 0 - | - 0 - |

* $1,890,000/45% = 4,200,000 where
45% = 135,000/300,000

**Problem 8-1 (continued)**

| | | | |
|---|---|---|---|
| **Part B** | Investment in Sarko Company ($37,000 + $22,500) | 59,500 | |
| | Retained Earnings 1/1 - Pelzer Company | | 59,500 |
| | To establish reciprocity/convert to equity | | |
| | 0.10 × ($630,000 - $260,000) + .25 × ($630,000 - $540,000) | | |
| | | | |
| | Common Stock - Sarko Company | 3,000,000 | |
| | Retained Earnings 1/1 - Sarko | 630,000 | |
| | Difference between Implied and Book Value | 570,000 | |
| | Investment in Sarko Company | | 3,360,000 |
| | Noncontrolling interest | | 840,000 |
| | To eliminate investment account and create noncontrolling interest account | | |
| | | | |
| | Goodwill | 570,000 | |
| | Difference between Implied and Book Value | | 570,000 |
| | To allocate the difference between implied and book value to goodwill | | |

**Problem 8-2**

| | | |
|---|---|---|
| **Pyle Company's Books** | | |
| Investment | 510,000 | |
| Cash | | 510,000 |

Implied value by the purchase is ($510,000/.85) = $600,000, with NCI = $90,000.

The carrying value of Stern Company, on January 1, 2011, is computed as follows:

| | | |
|---|---|---|
| Carrying value of Stern Company | | |
| Carrying value of Stern Company (on 1/1/2011) | | |
| Pyle Company's carrying value of Company Stern | | |
| Initial cost (51,000 shares) | $510,000 | |
| Increase in retained earnings ($292,000-120,000 x 0.85) | 146,200 | |
| Carrying value of Investment in Stern Company 1/1/2011 | | 656,200 |
| | | |
| Noncontrolling carrying value in Company Stern | | |
| Initial value (9,000 shares) | $90,000 | |
| Increase in retained earnings ($292,000-120,000 x 0.15) | 25,800 | |
| Carrying value of Investment in Stern Company 1/1/2011 | | 115,800 |
| Total carrying value of Stern Company (1/1/2011) | | 772,000 |

**Problem 8-2 (continued)**

To retroactively record Pyles's share of Stern Company earnings in the investment account.

| | | |
|---|---|---|
| Investment in Stern Company | 146,200 | |
| 1/1 Retained Earnings – Pyle Company | | 146,200 |

The gain or loss in net income attributable to Pyle Company is computed as follows:

| | | |
|---|---|---|
| Gain or loss is the difference in: | | |
| 1) Total carrying value of Stern Company | | 772,000 |
| 2) Sum of: | | |
| Fair value of consideration received (40,000 shares) | $480,000 | |
| Fair value of retained NCI (11,000 x $12) | 132,000 | |
| Carrying value of the NCI (9,000 shares) | 115,800 | |
| Total | | 727,800 |
| Loss attributable to Pyle Company | | $ 44,200 |

The loss will be split between the 40,000 shares that are sold and the 11,000 shares that are still held as an investment. To record the sale of the shares, Pyle Company makes the following entry in its books on January 1, 2011.

**Pyle Company's Books**

| | | | |
|---|---|---|---|
| (1) | Cash (40,000 x $12/share) | 480,000 | |
| | Realized loss on sale (on 40,000 shares sold) | 34,667 | |
| | Investment in S Company (40/51 × $656,200) | | 514,667 |
| (2) | Unrealized loss (on 11,000 shares retained) | 9,533 | |
| | Investment in Stern Company (remaining 11,000 shares) | | 9,533 |
| | To reduce the remaining shares to market value. | | |

After the last entry, the balance in the investment account is equal to the fair value of the remaining interest ($132,000 or 11,000 shares at $12/share)

**Problem 8-3**

PYLE COMPANY AND SUBSIDIARY
Consolidated Statements Workpaper
For the Year Ended December 31, 2011

| | Pyle | Stern | Eliminations | | Noncontrolling | Consolidated |
|---|---|---|---|---|---|---|
| | Company | Company | Dr. | Cr. | Interest | Balances |
| Income Statement | | | | | | |
| Income before Dividend Income* | $172,000 | $186,000 | | | | $358,000 |
| Dividend Income | 48,000 | | (1) 48,000 | | | |
| Net/Consolidated Income | 220,000 | 186,000 | | | | 358,000 |
| Subsidiary Income Sold | | | | (3) 2,325 | | 2,325 |
| Noncontrolling Interest in Income (.2 × $186,000) | | | | | 37,200 | (37,200) |
| Net Income to Retained Earnings | $220,000 | $186,000 | 48,000 | 2,325 | 37,200 | $323,125 |
| Retained Earnings Statement | | | | | | |
| Retained Earnings, 1/1: | | | | | | |
| Pyle Company | $1,200,000 | | | (2) 8,600 | | |
| | | | | (4)137,600 | | 1,346,200 |
| Stern Company | | 292,000 | (5) 292,000 | | | |
| Net Income from above | 220,000 | 186,000 | 48,000 | 2,325 | 37,200 | 323,125 |
| Dividends Declared: | | | | | | |
| Pyle Company | (80,000) | | | | | (80,000) |
| Stern Company | | (60,000) | | (1) 48,000 | (12,000) | |
| 12/31 Retained Earnings to Balance Sheet | $1,340,000 | $418,000 | $340,000 | $196,525 | $25,200 | $1,589,325 |

| | |
|---|---|
| *Reported Net Income | $220,000 |
| Less: Dividend Income (.8 × $60,000) | (48,000) |
| | $172,000 |

| **Problem 8-3 (continued)** | Pyle | Stern | Eliminations | | Noncontrolling | Consolidated |
|---|---|---|---|---|---|---|
| | Company | Company | Dr. | Cr. | Interest | Balances |
| Balance Sheet | | | | | | |
| Current Assets | $600,000 | $320,000 | | | | $920,000 |
| Investment in Stern Company | 480,000 | | (4) 137,600 | (5) 617,600 | | |
| Other Assets | 1,180,000 | 668,000 | | | | 1,848,000 |
| Total | $2,260,000 | $988,000 | | | | $2,768,000 |
| | | | | | | |
| Liabilities | $190,000 | $90,000 | | | | $280,000 |
| Common Stock: | | | | | | |
| Pyle Company | 500,000 | | | | | 500,000 |
| Stern Company | | 300,000 | (5) 300,000 | | | |
| Other Contributed Capital | | | | | | |
| Pyle Company | 230,000 | | (2) 8,600 | | | 219,075 |
| | | | (3) 2,325 | | | |
| Stern Company | | 180,000 | (5) 180,000 | | | |
| Retained Earnings from above | 1,340,000 | 418,000 | 340,000 | 196,525 | 25,200 | 1,589,325 |
| 1/1 Noncontrolling Interest in Net Assets | | | | (5) 154,400 | 154,400 | |
| 12/31 Noncontrolling Interest | | | | | $179,600 | 179,600 |
| Total | $2,260,000 | $988,000 | $968,525 | $968,525 | | $2,768,000 |

(1) To eliminate intercompany dividends. (80% of $60,000)

(2) To adjust additional contributed capital for portion included in income in prior years 3/51 × [.85 × ($772,000 - $600,000)]

(3) To adjust additional contributed capital for current year's income sold to noncontrolling stockholders 3/51 × (3/12 × $186,000 × .85)

(4) To establish reciprocity/convert to equity on shares retained (.8 × ($292,000 - $120,000))

(5) To eliminate investment account and create noncontrolling interest account. $510,000/.85 x.2 + ($292,000 - $120,000) x .2

Verification of Controlling interest in Consolidated Net Income:

| | | |
|---|---|---|
| Stern company's reported income | | $186,000 |
| Allocated to noncontrolling interest: | | |
| First three months ($46,500 × .15) | $6,975 | |
| Last nine months ($139,500 × .2) | 27,900 | |
| 34,875 | | |
| Allocated to controlling interest (Pyle Company) | | 151,125 |
| Pyle Company's Income | | 172,000 |

| | |
|---|---|
| Controlling interest in Consolidated Net Income | $323,125 |

On Pyle's books

| | | |
|---|---|---|
| Cash | 100,000 | |
| Investment in S Company (3,000/51,000 × $510,000) | | 30,000 |
| Additional Contributed Capital—Pyle Company | | 70,000 |

| | | |
|---|---|---|
| Cost of Shares (3,000/51,000 × $510,000) | | $30,000 |
| Plus: Undistributed Income: | | |
| (A) Change in Retained Earnings from the date of acquisition (1/2/09) to the beginning of the year (1/1/11) | | |
| ($292,000 - $120,000) | $172,000 | |
| Ownership percentage sold | 5% | 8,600 |
| (B) Earnings from beginning of current year to the the date of sale (1/1/11 to 4/1/11) | | |
| ($186,000/4) | 46,500 | |
| Ownership percentage sold | 5% | 2,325 |
| Adjusted cost of shares sold | | $40,925 |

| | |
|---|---|
| Selling price of shares | $100,000 |
| Adjusted cost of shares sold | 40,925 |
| Additional paid in capital – Pyle Company | $59,075 |
| Paid in capital recorded on Pyle's books | 70,000 |
| Reduction in paid in capital needed | 10,925 |

| | | |
|---|---|---|
| (1) Dividend Income | 48,000 | |
| Dividend Declared—Stern Company | | 48,000 |

| | | |
|---|---|---|
| (2) Additional Contributed Capital—Pyle Company | 8,600 | |
| 1/1 Retained Earnings— Pyle Company (Consolidated Retained Earnings) | | 8,600 |
| (3) Additional Contributed Capital— Pyle Company | 2,325 | |
| Subsidiary Income Sold | | 2,325 |

| | | |
|---|---|---|
| (4) Investment in Stern Company (.8 × ($292,000 - $120,000)) | 137,600 | |
| 1/1 Retained Earnings— Pyle Company | | 137,600 |

To establish reciprocity on shares still owned at year-end

| | | |
|---|---|---|
| (5) Common Stock— Stern Company | 300,000 | |
| Other Contributed Capital – Stern Company | 180,000 | |
| 1/1 Retained Earnings— Stern Company | 292,000 | |
| Investment in S Company (72%) ($510,000 - $30,000 + $137,600) | | 617,600 |
| Noncontrolling Interest [25,000 + 28% (185,000 - 120,000) + 45,000] | | 154,400 |

**Problem 8-4**

PORTER COMPANY AND SUBSIDIARY
Consolidated Statements Workpaper
For the Year Ended December 31, 2011

| | Porter Company | Spitz Company | Eliminations Dr. | Eliminations Cr. | Noncontrolling Interest | Consolidated Balances |
|---|---|---|---|---|---|---|
| Income Statement | | | | | | |
| Income before Dividend Income* | $63,200 | $60,000 | | | | $123,200 |
| Dividend Income | 24,300 | | (1) 24,300 | | | |
| Net/Consolidated Income | 87,500 | 60,000 | | | | 123,200 |
| Subsidiary Income Sold | | | | (3) 1,800 | | 1,800 |
| Noncontrolling Interest in Income (.19 × $60,000) | | | | | 11,400 | (11,400) |
| Net Income to Retained Earnings | $87,500 | $60,000 | 24,300 | 1,800 | 11,400 | $113,600 |
| Retained Earnings Statement | | | | | | |
| Retained Earnings, 1/1: | | | | | | |
| Porter Company | $206,500 | | | (2) 9,540 | | |
| | | | | (4) 85,860 | | 301,900 |
| Spitz Company | | 126,000 | (5) 126,000 | | | |
| Net Income from above | 87,500 | 60,000 | 24,300 | 1,800 | 11,400 | 113,600 |
| Dividends Declared: | | | | | | |
| Porter Company | (50,000) | | | | | (50,000) |
| Spitz Company | | (30,000) | | (1) 24,300 | (5,700) | |
| 12/31 Retained Earnings to Balance Sheet | $244,000 | $156,000 | 150,300 | 121,500 | 5,700 | $365,500 |

| | |
|---|---|
| * Reported Net Income | $87,500 |
| Less: Dividend Income (45,000 – 4,500)/50,000) × $30,000) | (24,300) |
| | $63,200 |

## Problem 8-4 (continued)

|  | Porter Company | Spitz Company | Eliminations Dr. | Eliminations Cr. | Noncontrolling Interest | Consolidated Balances |
|---|---|---|---|---|---|---|
| Balance Sheet |  |  |  |  |  |  |
| Cash | $90,000 | $40,000 |  |  |  | $130,000 |
| Accounts Receivable | 62,000 | 38,000 |  |  |  | 100,000 |
| Inventory | 106,000 | 64,000 |  |  |  | 170,000 |
| Investment in Spitz Company | 121,500 |  | (4) 85,860 | (5) 207,360 |  |  |
| Difference b/w Implied and Book Value*** |  |  | (5) 10,000 | (6) 10,000 |  |  |
| Plant Assets | 320,000 | 149,000 |  |  |  | 469,000 |
| Land | 69,000 | 46,000 | (6) 10,000 |  |  | 125,000 |
| Total | $768,500 | $337,000 |  |  |  | $994,000 |
| Liabilities | $102,000 | $61,000 |  |  |  | $163,000 |
| Common Stock: |  |  |  |  |  |  |
| Porter Company | 250,000 |  |  |  |  | 250,000 |
| Spitz Company |  | 100,000 | (5) 100,000 |  |  |  |
| Other Contributed Capital |  |  |  |  |  |  |
| Porter Company | 172,500 |  | (2) 9,540<br>(3) 1,800 |  |  | 161,160 |
| Spitz Company |  | 20,000 | (5) 20,000 |  |  |  |
| Retained Earnings from above | 244,000 | 156,000 | 150,300 | 121,500 | 5,700 | 365,500 |
| 1/1 Noncontrolling Interest in Net Assets** |  |  |  | (5) 48,640 | 48,640 |  |
| 12/31 Noncontrolling Interest in Net Assets |  |  |  |  | $54,340 | 54,340 |
| Total | $768,500 | $337,000 | 387,500 | 387,500 |  | $994,000 |

(1) To eliminate intercompany dividends. ($30,000 × (45,000 - 4,500)/50,000)

(2) To adjust additional contributed capital for portion included in income in prior years. .1 × [.9 × ($246,000 - $140,000)]

(3) To adjust additional contributed capital for current year's income sold to noncontrolling stockholders .1 × (4/12 × $60,000 × .9)

(4) To establish reciprocity/convert to equity on shares retained. .81 × ($126,000 - $20,000)

(5) To eliminate investment account and create noncontrolling interest account. **$135,000/.9 x .19 + ($126,000 - $20,000) x .19

(6) To allocate the difference between implied and book value *** $135,000/.9 - $140,000

Verification of Controlling interest in Consolidated Net Income:

|  |  |  |
|---|---|---|
| Spitz company's reported income |  | $60,000 |
| Allocated to noncontrolling interest: |  |  |
| First four months (4/12 × $60,000 × .10) | $2,000 |  |
| Last eight months (8/12 × $60,000 × .19) | 7,600 | (9,600) |
| Allocated to controlling interest |  | 50,400 |
| Porter Company's Income |  | 63,200 |
| Controlling interest in Consolidated Net Income |  | $113,600 |

**Problem 8-4 (continued)**

| | | |
|---|---|---|
| Cost of Shares (4,500/45,000 × $135,000) | | $13,500 |
| Plus: Undistributed Income: | | |
| (A) Change in Retained Earnings from the date of acquisition (1/1/07) to the beginning of the year (5/1/11) | | |
| ($126,000 - $20,000) | $106,000 | |
| Ownership percentage sold | 9% | 9,540 |
| (B) Earnings from beginning of current year to the the date of sale (1/1/11 to 5/1/11) | | |
| ($60,000/3) | 20,000 | |
| Ownership percentage sold | 9% | 1,800 |
| Adjusted cost of shares sold | | $24,840 |

| | |
|---|---|
| Selling price of shares | $28,000 |
| Adjusted cost of shares sold | 24,840 |
| Additional paid in capital – Porter Company | $3,160 |
| Paid in capital recorded on P's books ($28,000-13,500) | 14,500 |
| Reduction in paid in capital needed | -11,340 |

**On Porter's books**

| | | |
|---|---|---|
| Cash | 28,000 | |
| Investment in Spitz | | 13,500 |
| Other Contributed Capital – Porter Company | | 14,500 |

| | | |
|---|---|---|
| (1) Dividend Income | 24,300 | |
| Dividends declared—Spitz Company | | 24,300 |
| (2) Additional Contributed Capital—Porter Company | 9,540 | |
| 1/1 Retained Earnings—Porter Company | | 9,540 |
| (3) Additional Contributed Capital—Porter Company | 1,800 | |
| Subsidiary Income Sold | | 1,800 |

| | | |
|---|---|---|
| (4) Investment in Spitz Company (.81 × ($126,000 - $20,000)) | 85,860 | |
| 1/1 Retained Earnings—Porter Company | | 85,860 |

To establish reciprocity on shares still owned at year-end

| | | |
|---|---|---|
| (5) Common Stock— Spitz Company | 100,000 | |
| Other Contributed Capital – Spitz Company | 20,000 | |
| 1/1 Retained Earnings— Spitz Company | 126,000 | |
| Difference between Implied Value and Book Value | 10,000 | |
| Investment in Spitz Company | | 207,360 |
| ($135,000-24,840+106,000 × .9 +1,800) | | |
| Noncontrolling Interest | | 48,640 |
| [($135,000/.90)] × .1 + 24,840 +106,000 × .1 -1,800 | | |

| | | |
|---|---|---|
| (6) Land | 10,000 | |
| Difference between Implied Value and Book Value | | 10,000 |
| ($135,000/.9) - $140,000 | | |

**Problem 8-5**

PYLE COMPANY AND SUBSIDIARY
Consolidated Statements Workpaper
For the Year Ended December 31, 2011

| | Pyle | Stern | Eliminations | | Noncontrolling | Consolidated |
|---|---|---|---|---|---|---|
| | Company | Company | Dr. | Cr. | Interest | Balances |
| Income Statement | | | | | | |
| Income before Equity in Subsidiary | $172,000 | $186,000 | | | | $358,000 |
| Equity in Subsidiary Income | 151,125 | | (1) 151,125 | | | |
| Net/Consolidated Income | 323,125 | 186,000 | | | | 358,000 |
| Subsidiary Income Sold | | | | (1) 2,325 | | 2,325 |
| Noncontrolling Interest in Income (.2 × $186,000) | | | | | 37,200 | (37,200) |
| Net Income to Retained Earnings | $323,125 | $186,000 | $151,125 | $2,325 | $37,200 | $323,125 |
| Retained Earnings Statement | | | | | | |
| Retained Earnings, 1/1: | | | | | | |
| Pyle Company | $1,346,200 | | | | | $1,346,200 |
| Stern Company | | 292,000 | (2) 292,000 | | | |
| Net Income from above | 323,125 | 186,000 | 151,125 | 2,325 | 37,200 | 323,125 |
| Dividends Declared: | | | | | | |
| Pyle Company | (80,000) | | | | | (80,000) |
| Stern Company | | (60,000) | | (1) 48,000 | (12,000) | |
| 12/31 Retained Earnings to Balance Sheet | $1,589,325 | $418,000 | $443,125 | $50,325 | $25,200 | $1,589,325 |

| | |
|---|---|
| * Reported Net Income | $323,125 |
| Less: Equity in Subsidiary Income ($46,500 × .85*) + ($139,500 × .80**) | (151,125) |
| | $172,000 |

* 51,000/60,000 = .85; ** (51,000 – 3,000)/60,000 = .80

| **Problem 8-5 (continued)** | Pyle Company | Stern Company | Eliminations Dr. | Eliminations Cr. | Noncontrolling Interest | Consolidated Balances |
|---|---|---|---|---|---|---|
| Balance Sheet | | | | | | |
| Current Assets | $600,000 | $320,000 | | | | $920,000 |
| Investment in Stern Company | 718,400 | | | (1) 100,800<br>(2) 617,600 | | |
| Other Assets | 1,180,000 | 668,000 | | | | 1,848,000 |
| Total | $2,498,400 | $988,000 | | | | $2,768,000 |
| | | | | | | |
| Liabilities | $190,000 | $90,000 | | | | $280,000 |
| Common Stock: | | | | | | |
| Pyle Company | 500,000 | | | | | 500,000 |
| Stern Company | | 300,000 | (2) 300,000 | | | |
| Other Contributed Capital: | | | | | | |
| Pyle Company | 219,075 | | | | | 219,075 |
| Stern Company | | 180,000 | (2) 180,000 | | | |
| Retained Earnings from above | 1,589,325 | 418,000 | 443,125 | 50,325 | 25,200 | 1,589,325 |
| 1/1 Noncontrolling Interest | | | | (5) 154,400 | 154,400 | |
| 12/31 Noncontrolling Interest | | | | | $179,600 | 179,600 |
| Total | $2,498,400 | $988,000 | $923,125 | $923,125 | | $2,768,000 |

(1) To reverse the effect of parent company entries during the year for subsidiary dividends and income

(2) To eliminate investment account and create noncontrolling interest account $510,000/.85 x.2 + ($292,000 - $120,000) x .2

Verification of Consolidated Net Income:

| | | |
|---|---|---|
| Stern Company's reported income | | $186,000 |
| Allocated to noncontrolling interest: | | |
| First three months $46,500 × .15 | $6,975 | |
| Last nine months $139,500 × .2 | 27,900 | 34,875 |
| Allocated to controlling interest (Pyle Company) | | 151,125 |
| Pyle Company's Income | | 172,000 |
| Consolidated Net Income | | $323,125 |

**Problem 8-5 (continued)**

On Pyle's books

| | | |
|---|---|---|
| Cash | 100,000 | |
| Investment in S Company (3,000/51,000 × $510,000) | | 40,925 |
| Additional Contributed Capital—Pyle Company | | 59,075 |

| | | |
|---|---|---|
| Cost of Shares (3,000/51,000 × $510,000) | | $30,000 |
| Plus: Undistributed Income: | | |
| (A) Change in Retained Earnings from the date of acquisition (1/2/09) to the beginning of the year (1/1/11) | | |
| ($292,000 - $120,000) | $172,000 | |
| Ownership percentage sold | 5% | 8,600 |
| (B) Earnings from beginning of current year to the the date of sale (1/1/11 to 4/1/13) | | |
| ($186,000/4) | 46,500 | |
| Ownership percentage sold | 5% | 2,325 |
| Adjusted cost of shares sold | | $40,925 |

| | |
|---|---|
| Selling price of shares | $100,000 |
| Adjusted cost of shares sold | 40,925 |
| Additional paid in capital – Pyle Company | $59,075 |

| | | |
|---|---|---|
| (1) Equity Income ($46,500×.85)+($139,500×.80) | 151,125 | |
| Investment in Skon Company | | 100,800 |
| Dividends Declared – Skon Company ($60,000×.80) | | 48,000 |
| Subsidiary income sold ($46,500×.05) | | 2,325 |

| | | |
|---|---|---|
| (2) Common Stock— Skon Company | 300,000 | |
| Other Contributed Capital – Skon Company | 180,000 | |
| 1/1 Retained Earnings— Skon Company | 292,000 | |
| Investment in Skon Company<br>($510,000-40,925 + 2,325 + $146,200) | | 617,600 |
| Noncontrolling Interest<br>[90,000 + 15% (292,000 - 120,000) + 40,925 - 2,325] | | 154,400 |

| | | |
|---|---|---|
| Cost of Shares | | $510,000 |
| Plus: Undistributed Income: | | |
| (A) Change in Retained Earnings from the date of acquisition (1/2/09) to the beginning of the year (1/1/11) | | |
| ($292,000 - $120,000) | $172,000 | |
| Ownership percentage | 85% | 146,200 |
| (B) Earnings from beginning of current year to the the date of sale (1/1/11 to 4/1/13) | | |
| ($186,000/4) | 46,500 | |
| Ownership percentage | 85% | 39,525 |
| Adjusted cost of shares sold | | $695,725 |
| Less carrying value sold | | 40,925 |

| | | |
|---|---|---|
| Carrying value of retained ownership | | 654,800 |
| Earnings since 4/1/13 ($186,000-46,500)× .80 | 111,600 | |
| Dividends since 4/1/13 ($60,000 × .80) | -48,000 | 63,600 |
| Investment balance 12/31/2011 | | 718,400 |

**Problem 8-6**

PORTER COMPANY AND SUBSIDIARY
Consolidated Statements Workpaper
For the Year Ended December 31, 2011

| | Porter | Spitz | Eliminations | | Noncontrolling | Consolidated |
|---|---|---|---|---|---|---|
| | Company | Company | Dr. | Cr. | Interest | Balances |
| Income Statement | | | | | | |
| Income before Equity in Subsidiary * | $63,200 | $60,000 | | | | $123,200 |
| Equity in Subsidiary Income | 50,400 | | (1) 50,400 | | | |
| Net/Consolidated Income | 113,600 | 60,000 | | | | 123,200 |
| Subsidiary Income Sold | | | | (1) 1,800 | | 1,800 |
| Noncontrolling Interest in Income (.19 × $60,000) | | | | | 11,400 | (11,400) |
| Net Income to Retained Earnings | $113,600 | $60,000 | 50,400 | 1,800 | 11,400 | $113,600 |
| Retained Earnings Statement | | | | | | |
| Retained Earnings, 1/1: | | | | | | |
| Porter Company | $301,900 | | | | | $301,900 |
| Spitz Company | | 126,000 | (2) 126,000 | | | |
| Net Income from above | 113,600 | 60,000 | 50,400 | 1,800 | 11,400 | 113,600 |
| Dividends Declared: | | | | | | |
| Porter Company | (50,000) | | | | | (50,000) |
| Spitz Company | | (30,000) | | (1) 24,300 | (5,700) | |
| 12/31 Retained Earnings to Balance Sheet | $365,500 | $156,000 | 176,400 | 26,100 | 5,700 | $365,500 |

| | |
|---|---|
| * Reported Net Income | $113,600 |
| Less: Equity in Subsidiary Income [(.90 × $20,000) + (.81 × $40,000)] | (50,400) |
| | $63,200 |

**Problem 8-6 (continued)**

| | Porter Company | Spitz Company | Eliminations Dr. | Eliminations Cr. | Noncontrolling Interest | Consolidated Balances |
|---|---|---|---|---|---|---|
| Balance Sheet | | | | | | |
| Cash | $90,000 | $40,000 | | | | $130,000 |
| Accounts Receivable | 62,000 | 38,000 | | | | 100,000 |
| Inventory | 106,000 | 64,000 | | | | 170,000 |
| Investment in Spitz Company | 231,660 | | | (1) 24,300<br>(2) 207,360 | | |
| Difference b/w Implied and Book Value*** | | | (2) 10,000 | (3) 10,000 | | |
| Plant Assets | 320,000 | 149,000 | | | | 469,000 |
| Land | 69,000 | 46,000 | (3) 10,000 | | | 125,000 |
| Total | $878,660 | $337,000 | | | | $994,000 |
| Liabilities | $102,000 | $61,000 | | | | $163,000 |
| Common Stock: | | | | | | |
| Porter Company | 250,000 | | | | | 250,000 |
| Spitz Company | | 100,000 | (2) 100,000 | | | |
| Other Contributed Capital | | | | | | |
| Porter Company | 161,160 | | | | | 161,160 |
| Spitz Company | | 20,000 | (2) 20,000 | | | |
| Retained Earnings from above | 365,500 | 156,000 | 176,400 | 26,100 | 5,700 | 365,500 |
| 1/1 Noncontrolling Interest in Net Assets** | | | | (5) 48,640 | 48,640 | |
| 12/31 Noncontrolling Interest in Net Assets | | | | | $54,340 | 54,340 |
| Total | $878,660 | $337,000 | $316,400 | $316,400 | | $994,000 |

(1) To reverse effect of subsidiary income and dividends on investment account for the year

(2) To eliminate investment account and create noncontrolling interest account. **$135,000/.9 x .19 + ($126,000 - $20,000) x .19

(3) To allocate the difference between implied and book value *** $135,000/.9 - $140,000

Verification of Controlling interest in Consolidated Net Income:

| | | |
|---|---|---|
| Spitz company's reported income | | $60,000 |
| Allocated to noncontrolling interest: | | |
| First four months (4/12 × $60,000 × .10) | $2,000 | |
| Last eight months (8/12 × $60,000 × .19) | 7,600 | (9,600) |
| Allocated to controlling interest | | 50,400 |
| Porter Company's Income | | 63,200 |
| Controlling interest in Consolidated Net Income | | $113,600 |

**Problem 8-6 (continued)**

| | | |
|---|---|---|
| Cost of Shares (4,500/45,000 × $135,000) | | $13,500 |
| Plus: Undistributed Income: | | |
| (A) Change in Retained Earnings from the date of acquisition (1/1/07) to the beginning of the year (5/1/11) | | |
| ($126,000 - $20,000) | $106,000 | |
| Ownership percentage sold | 9% | 9,540 |
| (B) Earnings from beginning of current year to the the date of sale (1/1/11 to 5/1/11) | | |
| ($60,000/3) | 20,000 | |
| Ownership percentage sold | 9% | 1,800 |
| Adjusted cost of shares sold | | $24,840 |

| | |
|---|---|
| Selling price of shares | $28,000 |
| Adjusted cost of shares sold | 24,840 |
| Additional paid in capital – Porter Company | $3,160 |

**On Porter's books**

| | | |
|---|---|---|
| Cash | 28,000 | |
| Investment in Spitz | | 24,840 |
| Other Contributed Capital – Porter Company | | 3,160 |

**Workpaper elimination entries**

| | | |
|---|---|---|
| (1) Equity Income [(.90 × $20,000) + (.81 × $40,000)] | 50,400 | |
| Dividends declared—Spitz Company (.81 × $30,000) | | 24,300 |
| Investment in Spitz Company | | 24,300 |
| Equity Income Sold | | 1,800 |

| | | |
|---|---|---|
| (2) Common Stock— Spitz Company | 100,000 | |
| Other Contributed Capital – Spitz Company | 20,000 | |
| 1/1 Retained Earnings— Spitz Company | 126,000 | |
| Difference between Implied Value and Book Value | 10,000 | |
| Investment in Spitz Company<br>($135,000-24,840+106,000 × .9 +1,800) | | 207,360 |
| Noncontrolling Interest<br>[($135,000/.90)] × .1 + 24,840 +106,000 × .1 -1,800 | | 48,640 |

| | | |
|---|---|---|
| (3) Land | 10,000 | |
| Difference between Implied Value and Book Value<br>($135,000/.9) - $140,000 | | 10,000 |

**Problem 8-7**

| | Shares Traded | Shares Owned | % Owned |
|---|---|---|---|
| 1/1/2011 purchase | 30,000 | 30,000 | 10% |
| 7/1/2011 purchase | 210,000 | 240,000 | 80% |
| 11/1/2011 sale | (3,000) | 237,000 | 79% |

**Cost Method (Part A and B)**

**Part A** 1/1/2011

| | | |
|---|---|---|
| Investment in Spivey Company | 122,000 | |
| Cash | | 122,000 |

7/1/2011

| | | |
|---|---|---|
| Investment in Spivey Company ($3.76 per share) | 789,600 | |
| Cash | | 789,600 |

| | | |
|---|---|---|
| Shares to fair value (30,000)($3.76/share) | | $112,800 |
| Carrying value (adjusted) | | |
| Cost | 122,000 | |
| Income first six months ($60,000)(10%) | 6,000 | 128,000 |
| Total Loss on revaluation | | 15,200 |

| | | |
|---|---|---|
| Loss on revaluation* | 15,200 | |
| Investment in Spivey Company | | 15,200 |

*[$789,600/210,000 – ($122,000+$6,000)/30,000] x 30,000 = - $15,200
(10%)($60,000)= 6,000 income first six months

| | | |
|---|---|---|
| Selling price 3,000 shares ($7/share) | | $21,000 |
| Carry value 6/30/2011 (240,000)($3.76/share) | $902,400 | |
| Income since 6/30 ($36,000)(80%) | 28,800 | |
| Carry value 11/1/2011 | 931,200 | |
| Percent sold (3,000/240,000) | 1.25% | |
| Carry value sold | | 11,640 |
| Additional paid in capital – Plum Company | | $ 9,360 |

11/1/2011

| | | |
|---|---|---|
| Cash | 21,000 | |
| Investment in Spivey Company ($3.56**)(3,000 shares) | | 10,680 |
| Additional Contributed Capital | | 10,320 |

(On worksheet need to reduce additional contributed capital by ($10,320-9,360 = $960)
** ($122,000 -15,200)/30,000 shares = $3.56 per share

**Problem 8-7 (continued)**

| | | | |
|---|---|---|---|
| **Part B** | Additional Contributed Capital (1) | 960 | |
| | Subsidiary Income Sold | | 960 |
| | Subsidiary Income Purchased (2) | 42,000 | |
| | Investment in Spivey Company | | 42,000 |
| | Investment in Spivey Company | 6,000 | |
| | Subsidiary Income Sold | | 6,000 |

(1) 3,000/300,000 × $96,000 = $9,600 × 3,000/30,000 = $960
(2) 10% of $60,000 +

| | | |
|---|---|---|
| Common Stock - Spivey Company | 600,000 | |
| Retained Earnings 1/1 - Spivey Company | 240,000 | |
| Difference between Implied and Book Value | 288,000 | |
| Investment in Spivey Company ($902,400- $10,680 -42,000) | | 849,720 |
| Noncontrolling interest ($225,600+$10,680+42,000) | | 278,280 |
| | | |
| Goodwill | 288,000 | |
| Difference between Implied and Book Value | | 288,000 |

Computation and Allocation of Difference between Implied and Book Value Acquired

| | Parent Share | Non-Controlling Share | Entire Value |
|---|---|---|---|
| Purchase price and implied value* | **$902,400** | **225,600** | 1,128,000 |
| Less: Book value of equity acquired | 672,000 | 168,000 | **840,000** |
| Difference between implied and book value | 230,400 | 57,600 | **288,000** |
| Goodwill | (230,400) | (57,600) | **(288,000)** |
| Balance | - 0 - | - 0 - | - 0 - |

*$789,600/210,000*240,000 = $902,400 or $122,000+$790,000– $15,200+$6,000 = $902,857

**Partial Equity and Complete Equity Methods (Part A and B)**

| | | | |
|---|---|---|---|
| **Part A** | 1/1/2011 | | |
| | Investment in Spivey Company | 122,000 | |
| | Cash | | 122,000 |
| | | | |
| | 7/1/2011 | | |
| | Investment in Spivey Company | 789,600 | |
| | Cash | | 789,600 |
| | | | |
| | Investment in Spivey Company | 6,000 | |
| | Equity income (1st six months, $60,000× 10%) | | 6,000 |
| | | | |
| | Loss on revaluation* | 15,200 | |
| | Investment in Spivey Company | | 15,200 |

*[(30,000 × $3.76)- ($122,000 + $6,000) = - $15,200

**Problem 8-7 (continued)**

| | | |
|---|---|---|
| 11/1/2011 | | |
| Cash | 21,000 | |
| Investment in Spivey Company ($3.88)(3,000)* | | 11,640 |
| Additional Contributed Capital – Plum Company | | 9,360 |

| * Book value of shares sold | 30,000 Shares | Total 240,000 Shares |
|---|---|---|
| Cost on 1/1/2011 | $122,000 | 911,600 |
| Income to 11/1/2011 ($96,000)(.10) or (.80) | 9,600 | 34,800 |
| Carrying value of shares | $131,600 | 946,400 |
| Fair value adjustment | (15,200) | 15,200 |
| Adjusted cost | 116,400 | 931,200 |
| Shares | 30,000 | 240,000 |
| Cost per share | $3.88 | $3.88 |

For 7/1 to 11/1 (80%)($36,000)= 28,800

| | | |
|---|---|---|
| Investment in Spivey Company | 28,800 | |
| Equity in Subsidiary Income | | 28,800 |

For 11/1 to 12/31 (79%)($34,000)= 26,860

| | | |
|---|---|---|
| Investment in Spivey Company | 26,860 | |
| Equity in Subsidiary Income | | 26,860 |

**Part B**

| | | |
|---|---|---|
| Equity income (6,000 + 28,800 + 26,800) | 61,660 | |
| Equity in Subsidiary Income Purchased (1) | 36,040 | |
| Investment in Spivey Company | | 96,700 |

| | |
|---|---|
| (1) $60,000 × 3,000/30,000 = | ($6,000) |
| 210,000/300,000 × $60,000 = | $42,000 |
| 30,000/300,000 × $96,000 = $9,600 × 3,000/30,000 = | (960) |
| Total | 36,040 |

| | | |
|---|---|---|
| Common Stock - Spivey Company | 600,000 | |
| Retained Earnings 1/1 - Spivey Company | 240,000 | |
| Difference between Implied and Book Value | 288,000 | |
| Investment in Spivey Company* | | 849,720 |
| Noncontrolling interest ($225,600+$11,640+96,700-55,660) | | 278,280 |
| * 902,400-11,640+55,660 – 96,700 | | |

| | | |
|---|---|---|
| Goodwill | 288,000 | |
| Difference between Implied and Book Value | | 288,000 |

**Part C**

| | | |
|---|---|---|
| Plum's reported net income | | $225,000 |
| Plum's share of Spivey's income: | | |
| 1/1/2011 to 6/30/2011 = (.1 × $60,000) | $6,000 | |
| 7/1/2011 to 10/31/2011 = (.8 × $36,000) | 28,800 | |
| 11/1/2011 to 12/31/2011= (.79 × $34,000) | 26,860 | 61,660 |
| Controlling interest in Consolidated Net Income | | $286,660 |

| | Parent Share | Non-Controlling Share | Entire Value |
|---|---|---|---|
| Carrying value on 6/30/2011 | **$902,400** | **225,600** | 1,128,000 |
| Change in RE 6/30 to 11/1 ($36,000) | 28,800 | 7,200 | 36,000 |
| Adjusted cost | 931,200 | 232,800 | 1,164,000 |
| Sell 3,000 shares $3.88 | -21,000 | +21,000 | |
| New carrying value (79%,21%) | 910,200 | 253,800 | 1,164,000 |
| Correct Carrying value | 919,560 | 244,440 | |
| Adjustment needed | +360 | -360 | |
| | +9,360 | -9,360 | |
| | | | |
| Carrying value | 919,560 | 244,440 | 1,164,000 |
| Change in RE | 61,660 | 27,300 | |
| | 981,220 | 271,740 | |

## Problem 8-8

| | | | |
|---|---|---|---|
| **Part A** | Investment in Spero Company | 63,750 | |
| | Cash (7,500 × $8.50) | | 63,750 |
| | | | |
| **Part B** | Dividend Income | 34,667 | |
| | Dividends Declared - Spero Company (.86666* × $40,000) | | 34,667 |
| | * (51,000 + 7,500)/(60,000 + 7,500) = .86666. | | |
| | | | |
| | Investment in Spero Company | 136,000 | |
| | 1/1 Retained Earnings - Pryor Company | | 136,000 |
| | To establish reciprocity/convert to equity (.85 × ($360,000 - $200,000)) | | |
| | | | |
| | Common Stock - Spero ($300,000 + (7,500 ×$5) | 337,500 | |
| | Other Contributed Capital – Spero (7,500 ×$3.5) | 26,250 | |
| | 1/1 Retained Earnings – Spero | 360,000 | |
| | Investment in Spero Company* | | 599,750 |
| | Difference between Implied and Book Value ($400,000/.85 - $500,000) | | 29,412 |
| | Additional Contributed Capital** | | 2,012 |
| | Noncontrolling Interest [$70,588 + .15 x ($360,000 - $200,000) - $2,012] | | 92,576 |
| | | | |
| | Difference between Implied and Book Value | 32,297 | |
| | Land | | 32,297 |

* $400,000 + $63,750 + $136,000

** Pryor Company's share of the new assets of Spero Company:

| | |
|---|---|
| Before the issue of new shares (.85 × $660,000) | $ 561,000 |
| After the issue [.86666 × ($660,000 + $63,750)] | 627,250 |
| Stockholders equity purchased | 66,250 |
| Plus: Goodwill purchased (-$29,412 x 0.0166) | (488) |
| Total interest acquired | 65,762 |
| Cost of the shares (7,500 × $8.50) | 63,750 |
| Excess of book value over cost | $ 2,012 |

## Problem 8-9

| | | | |
|---|---|---|---|
| **Part A** | (1) Investment in Sally Company | 57,400 | |
| | Additional Contributed Capital* | | 57,400 |

* Purdy Company's share of Sally Company's equity:

| | |
|---|---|
| Before new issue (.84 × $1,200,000**) | $1,008,000 |
| After new issue (.7 × ($1,200,000 + (6,000 × $55))) | 1,071,000 |
| Increase in Purdy Company's share | 63,000 |
| Less goodwill sold | (5,600) |
| Net increase | 57,400 |
| Cost | 0 |
| Adjustment to Additional Conrtibuted Capital | $57,400 |

** $600,000 + $200,000 + $400,000 = $1,200,000

| | | |
|---|---|---|
| (2) Investment in Sally Company | 201,600 | |

| | | | |
|---|---|---|---|
| | 1/1 Retained Earnings -Pryor Company | | 201,600 |
| | To establish reciprocity/convert to equity (.84 × ($400,000 - $160,000)) | | |
| | | | |
| (3) | Common Stock - Sally ($600,000 + $120,000) | 720,000 | |
| | Other Contributed Capital - Sally ($200,000 + $210,000) | 410,000 | |
| | Retained Earnings - Sally | 400,000 | |
| | Difference between Implied and Book Value ($840,000/.84 - $960,000) | 40,000 | |
| | Investment in Sally Company ($840,000 + $201,600 + $57,400) | | 1,099,000 |
| | Noncontrolling interest* | | 471,000 |
| | | | |
| | Land | 40,000 | |
| | Difference between Implied and Book Value | | 40,000 |

* ($720,000+$410,000+$400,000+$40,000) x .30 = $471,000 or $160,000 +($400,000 – $160,000) x .16 +$120,000 +$210,000 -$57,400

**Problem 8-9 (continued)**

| | | | |
|---|---|---|---|
| **Part B** (1) | Additional Contributed Capital* | 30,800 | |
| | Investment in Sally Company | | 30,800 |

| | |
|---|---|
| * Purdy Company's share of Sally Company's equity: | |
| Before new issue (.84 × $1,200,000) | $1,008,000 |
| After new issue (.7 × ($1,200,000 + (6,000 × $34)) | 982,800 |
| Decrease in Purdy Company's share | 25,200 |
| Less goodwill sold | 5,600 |
| Total decrease | 30,800 |
| Cost | 0 |
| Loss from subsidiary issuance of shares | $ 30,800 |

| | | | |
|---|---|---|---|
| (2) | Investment in Sally Company | 201,600 | |
| | 1/1 Retained Earnings -Pryor Company | | 201,600 |
| | To establish reciprocity (.84 × ($400,000 - $160,000)) | | |
| (3) | Common Stock - Sally | 720,000 | |
| | Other Contributed Capital - Sally ($200,000 + $84,000) | 284,000 | |
| | Retained Earnings - Sally | 400,000 | |
| | Difference between Implied and Book Value ($840,000/.84 - $960,000) | 40,000 | |
| | Investment in Sally Company ($840,000 + $201,600 - $30,800) | | 1,010,800 |
| | Noncontrolling interest** | | 433,200 |

** $160,000 +($400,000 – $160,000) × 0.16 +$120,000 +$84,000 + $30,800

| | | | |
|---|---|---|---|
| (4) | Land | 40,000 | |
| | Difference between Implied and Book Value | | 40,000 |

**Problem 8-10**

| | | |
|---|---|---|
| Cost of Shares (13,500/135,000) × $665,000 | | $66,500 |
| Plus: Undistributed Income: | | |
| (A) Change in Retained Earnings from the date of acquisition (1/1/10) to the beginning of the year (1/1/11) | | |
| ($500,000 - $400,000) | $100,000 | |
| Ownership percentage sold (13,500/150,000) | 9% | 9,000 |
| (B) Earnings from beginning of current year to the the date of sale (1/1/11 to 5/1/13) | | |
| ($270,000/3) | 90,000 | |
| Ownership percentage sold (13,500/150,000) | 9% | 8,100 |
| Adjusted cost of shares sold | | $83,600 |

| | |
|---|---|
| Selling price of shares (13,500 shares) | $91,000 |
| Adjusted cost of shares sold | 83,600 |
| Additional paid in capital – Pullen Company | $7,400 |

**Problem 8-10 (continued)**

**Part A**

| | | | |
|---|---|---|---|
| May 1 | Cash (13,500 shares) | 91,000 | |
| | Investment in Souza Company ((13,500/135,000) × $665,000) | | 66,500 |
| | Additional Contributed Capital | | 24,500 |
| | (note: you need to reduce additional contributed capital on the worksheet by $17,100 to get from $24,500 to $7,400) | | |
| | | | |
| Dec.16 | Cash | 56,700 | |
| | Dividend Income (.81* × $70,000) | | 56,700 |
| | * (135,000 – 13,500)/150,000 = .81 | | |

**Part B**

| | | |
|---|---|---|
| Investment in Souza Company | 81,000 | |
| Retained Earnings 1/1 – Pullen (.81 × ($500,000 - $400,000)) | | 81,000 |
| | | |
| Dividend Income (0.81 x $70,000) | 56,700 | |
| Dividends Declared - Souza Company | | 56,700 |
| | | |
| Additional Contributed Capital * | 17,100 | |
| Retained Earnings - Pullen | | 9,000 |
| Subsidiary Income Sold | | 8,100 |

*[($500,000 – $400,000) + $270,000 x 4/12] x 13,500/150,000

| | | |
|---|---|---|
| Common Stock - Souza | 300,000 | |
| Retained Earnings 1/1 - Souza | 500,000 | |
| Difference between Implied and Book Value | 38,889 | |
| Investment in Souza ($665,000 - $66,500 + $81,000) | | 679,500 |
| Noncontrolling interest* | | 159,389 |

*($300,000+$500,000+$38,889) x .19 or $73,889 + ($500,000 - $400,000) x .19 +$66,500

| | | |
|---|---|---|
| Land | 38,889 | |
| Difference between Implied and Book Value | | 38,889 |

**Part C**

| | |
|---|---|
| Pullen Company’s reported income | $ 352,500 |
| Less: Dividend income from Souza Company | (56,700) |
| Pullen Company’s independent income | 295,800 |
| Add: Pullen Company’s share of Souza Company Income: | |
| 1/1/2011 to 4/30/2011 = .9 × ($270,000 × 4/12) | 81,000 |
| 5/1/2011 to 12/31/2011 = .81 × ($270,000 × 8/12) | 145,800 |
| Controlling interest in consolidated net income | $ 522,600 |

**Part D**

| | | |
|---|---|---|
| Investment in Souza Company | 243,000 | |
| Retained Earnings 1/1 – Pullen (.81 × ($700,000 - $400,000)) | | 243,000 |

**Problem 8-11**

| | | |
|---|---|---|
| **Pyle Company's Books** | | |
| Investment in Stern | 600,000 | |
| Cash | | 600,000 |

Implied value by the purchase is ($510,000/.85) = $600,000, with NCI = $90,000.

The carrying value of Stern Company, on January 1, 2010, is computed as follows:

| | | |
|---|---|---|
| Carrying value of Stern Company | | |
| Carrying value of Stern Company | | |
| Pyle Company's carrying value of Company Stern | | |
| Initial cost (51,000 shares) (on 1/1/2009) | $510,000 | |
| Increase in retained earnings ($292,000-120,000 x 0.85) | 146,200 | |
| Carrying value of Investment in Stern Company 1/1/2011 | | 656,200 |
| | | |
| Noncontrolling carrying value in Company Stern | | |
| Initial value (9,000 shares) | $90,000 | |
| Increase in retained earnings ($292,000-120,000 x 0.15) | 25,800 | |
| Carrying value of Investment in S Company 1/1/2011 | | 115,800 |
| Total carrying value of Stern Company (1/1/2011) | | 772,000 |

The gain or loss in net income attributable to Pyle Company is computed as follows:

| | | |
|---|---|---|
| Gain or loss is the difference in: | | |
| 1) Total carrying value of Stern Company | | 772,000 |
| 2) Sum of: | | |
| Fair value of consideration received (40,000 shares) | $480,000 | |
| Fair value of retained NCI (11,000 x $12) | 132,000 | |
| Carrying value of the NCI (9,000 shares) | 115,800 | |
| Total | | 727,800 |
| Loss attributable to Pyle Company | | $ 44,200 |

The loss will be split between the 40,000 shares that are sold and the 11,000 shares that are still held as an investment. To record the sale of the shares, Pyle Company makes the following entry in its books on January 1, 2011.

| | | | |
|---|---|---|---|
| **Pyle Company's Books** | | | |
| (1) | Cash (40,000 x $12/share) | 480,000 | |
| | Realized loss on sale (on 40,000 shares sold) | 34,667 | |
| | Investment in Stern Company (40/51 × $656,200) | | 514,667 |
| | | | |
| (2) | Unrealized loss (on 11,000 shares retained) | 9,533 | |
| | Investment in Stern Company (remaining 11,000 shares) | | 9,533 |
| | To reduce the remaining shares to market value. | | |

**Problem 8-12 Worksheet, multiple purchases, cost method**
**Required:**

Control achieved on 1/1/2010, with the purchase of 12,500 shares (total shares owned equals 21,500 (53.75%) which include 9,000 shares acquired on 1/1/2009 and the 12,500 shares acquired on 1/1/2010).

Computation and Allocation of Difference between Implied and Book Value Acquired

Fair value price = $210,000/12,500 shares = $16.8/share

| | | |
|---|---|---|
| Fair value of 1/1/09 shares (9,000 shares at $16.8/share) | | $151,200 |
| Cost of 9,000 shares (22.5% ownership) | 110,500 | |
| Change in retained earnings (165,000-46,000)(22.5%) | 26,775 | |
| Adjusted carrying value of shares | | 137,275 |
| Increase to fair value | | $13,925 |

| | Parent Share | Non-Controlling Share | Entire Value |
|---|---|---|---|
| Fair value of 1/1/09 purchase ($16.8/share) | 151,200 | | |
| Fair value of 1/1/10 purchase ($16.8/share) | 210,000 | | |
| Purchase price and implied value* | **$361,200** | **310,800** | 672,000 |
| Less: Book value of equity acquired: | | | |
| Capital Stock | (215,000) | (185,000) | **(400,000)** |
| Retained Earnings | (88,688) | (76,312) | **(165,000)** |
| | | | |
| Difference between implied and book value | 57,512 | 49,488 | **107,000** |
| Land (other assets) | (57,512) | (49,488) | **(107,000)** |
| Balance | - 0 - | - 0 - | - 0 - |

* $210,000/31.25% = 672,000 where
31.25% = 12,500/40,000

**Problem 8-12 (continued)**

Worksheet journal entries

| | | | |
|---|---|---|---|
| (1) | Dividend Income (.5375 × $70,000) | 37,625 | |
| | Dividends declared – Sato Company | | 37,625 |
| | To eliminate dividends. | | |
| | | | |
| (2) | Investment in Sato Company ($37,000 + $22,500) | 26,775 | |
| | Retained Earnings 1/1 - Phan Company | | 26,775 |
| | To establish reciprocity/convert to equity<br>(165,000-46,000)(22.5%) = 26,775 | | |
| | | | |
| (3) | Capital Stock - Sato Company | 400,000 | |
| | Retained Earnings 1/1 – Sato Company | 165,000 | |
| | Difference between Implied and Book Value | 107,000 | |
| | Investment in Sato Company | | 361,200 |
| | Noncontrolling interest | | 310,800 |
| | To eliminate investment account and create noncontrolling interest account | | |
| | | | |
| (4) | Other assets (Land) | 107,000 | |
| | Difference between Implied and Book Value | | 107,000 |
| | To allocate the difference between implied and book value to goodwill | | |

## Problem 8-12 (continued)

Phan Company and Subsidiary
Consolidated Statements Workpaper
For the Year Ended December 31, 2007

| | Phan Company | Sato Company | Eliminations Dr. | Eliminations Cr. | Noncontrolling Interest | Consolidated Balances |
|---|---|---|---|---|---|---|
| **Income Statement** | | | | | | |
| Sales | 1,800,000 | 605,000 | | | | 2,405,000 |
| Gain on revaluation | 13,925 | | | | | 13,925 |
| Dividend Income | 37,625 | | (1) 37,625 | | | |
| Total Revenue | 1,851,550 | 605,000 | | | | 2,418,925 |
| Cost of Goods Sold | 1,100,000 | 320,000 | | | | 1,420,000 |
| Other Expense | 350,000 | 130,000 | | | | 480,000 |
| Total Cost and Expense | 1,450,000 | 450,000 | | | | 1,900,000 |
| Net/Consolidated Income | 401,550 | 155,000 | | | | 518,925 |
| Noncontrolling Interest in Income | | | | | 71,688 | (71,688) |
| Net Income to Retained Earnings | 401,550 | 155,000 | 37,625 | | 71,688 | 447,237 |
| **Retained Earnings Statement** | | | | | | |
| 1/1 Retained Earnings: | | | | | | |
| Phan Company | 326,325 | | | (2) 26,775 | | 353,100 |
| Sato Company | | 165,000 | (3) 165,000 | | | |
| Net Income from Above | 401,550 | 155,000 | 37,625 | | 71,688 | 447,237 |
| Dividends Declared: | | | | | | |
| Phan Company | (150,000) | | | | | (150,000) |
| Sato Company | | (70,000) | | (1) 37,625 | (32,375) | |
| 12/31 Retained Earnings to Balance Sheet | 577,875 | 250,000 | 202,625 | 64,400 | 39,313 | 650,337 |

**Problem 8-12 (continued)**

| | Phan | Sato | Eliminations | | Noncontrolling | Consolidated |
|---|---|---|---|---|---|---|
| | Company | Company | Dr. | Cr. | Interest | Balances |
| **Balance Sheet** | | | | | | |
| Current Assets | 165,500 | 138,000 | | | | 303,500 |
| Investment in Sato Company | 334,425 | | (2) 26,775 | (3) 361,200 | | |
| Difference b/w implied and book value | | | (3) 107,000 | (4) 107,000 | | |
| Other Assets | 920,000 | 672,000 | (4) 107,000 | | | 1,699,000 |
| Total Assets | 1,419,925 | 810,000 | | | | 2,002,500 |
| Liabilities | 142,050 | 160,000 | | | | 302,050 |
| Paid in Capital - Phan Company | 100,000 | | | | | 100,000 |
| Capital Stock: | | | | | | |
| Phan Company | 600,000 | | | | | 600,000 |
| Sato Company | | 400,000 | (3) 400,000 | | | |
| Retained Earnings from Above | 577,875 | 250,000 | 202,625 | 64,400 | 39,313 | 650,337 |
| 1/1 Noncontrolling Interest | | | | (3) 310,800 | 310,800 | |
| 12/31 Noncontrolling Interest | | | | | 350,113 | 350,113 |
| Total Liabilities and Equity | 1,419,925 | 810,000 | 843,400 | 843,400 | | 2,002,500 |

**Problem 8-13**

**On Phan Company's books**

| | | |
|---|---|---|
| Investment in Sato Company (36.25%) | 280,000 | |
| Cash | | 280,000 |

No revaluation is required for additional shares purchased after control is already achieved. The new ownership percentage is 90% or 36,000 shares divided by 40,000 shares outstanding. The balance in the investment account is $614,425 ($110,500 + $210,000 + $280,000 + 13,925).

**P Company's Carrying Value of the Investment in S Company**

| | *Before New Purchase (53.75%)* | *After New Purchase (90%)* | *Book Value of Interest Acquired* |
|---|---|---|---|
| Common Stock | (1) $215,000 | (3) $360,000 | $145,000 |
| Retained Earnings | (2) 134,375 | (4) 225,000 | 90,625 |
| Total Stockholders' Equity | $349,375 | $585,000 | $235,625 |
| Land to fair value | (5) 57,513 | (6) 96,300 | 38,787 |
| Carrying Value in S Company | 406,888 | 681,300 | $274,412 |
| Cost of New Shares | | | 280,000 |
| Decrease in Paid in Capital – Phan Company | | | $ 5,588 |

(1) .5375 × $400,000. (2) .5375 × $250,000. (3) .90 × $400,000.
(4) .90 × $250,000. (5) .5375 × $107,000. (6) .90 × $107,000.

Worksheet journal entries

| | | | |
|---|---|---|---|
| (1) | Dividend Income (.90 × $70,000) | 63,000 | |
| | Dividends declared – Sato Company | | 63,000 |
| | To remove dividends. | | |
| (2) | Investment in Sato Company ($26,775 + $45,688) | 72,463 | |
| | Retained Earnings 1/1 - Phan Company | | 72,463 |
| | To establish reciprocity/convert to equity<br>(165,000-46,000)(22.5%) = 26,775<br>(250,000-165,000)(53.75%) = 45,688 | | |
| (3) | Capital Stock - Sato Company | 400,000 | |
| | Retained Earnings 1/1 – Sato Company | 250,000 | |
| | Difference between Implied and Book Value | 107,000 | |
| | Paid in capital – Phan Company | 5,588 | |
| | Investment in Sato Company ($614,425+72,463) | | 686,888 |
| | Noncontrolling interest | | 75,700 |
| | To eliminate investment account and create noncontrolling interest account | | |
| (4) | Other assets (Land) | 107,000 | |
| | Difference between Implied and Book Value | | 107,000 |
| | To allocate the difference between implied and book value to goodwill | | |

**Problem 8-13 (continued)**

Phan Company and Subsidiary
Consolidated Statements Workpaper
For the Year Ended December 31, 2008

| | Phan Company | Sato Company | Eliminations | | Noncontrolling Interest | Consolidated Balances |
|---|---|---|---|---|---|---|
| | | | Dr. | Cr. | | |
| **Income Statement** | | | | | | |
| Sales | 1,800,000 | 600,000 | | | | 2,400,000 |
| Dividend Income | 63,000 | | (1) 63,000 | | | |
| Total Revenue | 1,863,000 | 600,000 | | | | 2,400,000 |
| Cost of Goods Sold | 1,100,000 | 325,000 | | | | 1,425,000 |
| Other Expense | 350,000 | 125,000 | | | | 475,000 |
| Total Cost and Expense | 1,450,000 | 450,000 | | | | 1,900,000 |
| Net/Consolidated Income | 413,000 | 150,000 | | | | 500,000 |
| Noncontrolling Interest in Income | | | | | 15,000 | (15,000) |
| Net Income to Retained Earnings | 413,000 | 150,000 | 63,000 | | 15,000 | 485,000 |
| **Retained Earnings Statement** | | | | | | |
| 1/1 Retained Earnings: | | | | | | |
| Phan Company | 577,875 | | | (2) 72,463 | | 650,338 |
| Sato Company | | 250,000 | (3) 250,000 | | | |
| Net Income from Above | 413,000 | 150,000 | 63,000 | | 15,000 | 485,000 |
| Dividends Declared: | | | | | | |
| Phan Company | (150,000) | | | | | (150,000) |
| Sato Company | | (70,000) | | (1) 63,000 | (7,000) | |
| 12/31 Retained Earnings to Balance Sheet | 840,875 | 330,000 | 313,000 | 135,463 | 8,000 | 985,338 |

**Problem 8-13 (continued)**

| | Phan | Sato | Eliminations | | Noncontrolling | Consolidated |
|---|---|---|---|---|---|---|
| | Company | Company | Dr. | Cr. | Interest | Balances |
| **Balance Sheet** | | | | | | |
| Current Assets | 165,500 | 218,000 | | | | 383,500 |
| Investment in Sato Company | 614,425 | | (2) 72,463 | | | |
| | | | | (3) 686,888 | | |
| Difference b/w implied and book value | | | (3) 107,000 | (4) 107,000 | | |
| Other Assets | 920,000 | 672,000 | (4) 107,000 | | | 1,699,000 |
| Total | 1,699,925 | 890,000 | | | | 2,082,500 |
| Liabilities | 159,050 | 160,000 | | | | 319,050 |
| Paid in Capital - Phan Company | 100,000 | | (3) 5,588 | | | 94,412 |
| Capital Stock: | | | | | | |
| Phan Company | 600,000 | | | | | 600,000 |
| Sato Company | | 400,000 | (3) 400,000 | | | |
| Retained Earnings from Above | 840,875 | 330,000 | 313,000 | 135,463 | 8,000 | 985,338 |
| 1/1 Noncontrolling Interest | | | | (3) 75,700 | 75,700 | |
| 12/31 Noncontrolling Interest | | | | | 83,700 | 83,700 |
| Total | 1,699,925 | 890,000 | 1,005,051 | 1,005,051 | | 2,082,500 |

**Problem 8-14 Worksheet, multiple purchases, equity method**

Control achieved on 1/1/2010, with the purchase of 12,500 shares (total shares owned equals 21,500 (53.75%) which include 9,000 shares acquired on 1/1/2009 and the 12,500 shares acquired on 1/1/2010).

Computation and Allocation of Difference between Implied and Book Value Acquired

Fair value price = $210,000/12,500 shares = $16.8/share

| | | |
|---|---|---|
| Fair value of 1/1/09 shares (9,000 shares at $16.8/share) | | $151,200 |
| Cost of 9,000 shares (22.5% ownership) | 110,500 | |
| Change in retained earnings (165,000-46,000)(22.5%) | 26,775 | |
| Adjusted carrying value of shares | | 137,275 |
| Increase to fair value | | $13,925 |

| | Parent Share | Non-Controlling Share | Entire Value |
|---|---|---|---|
| Fair value of 1/1/09 purchase ($16.8/share) | 151,200 | | |
| Fair value of 1/1/10 purchase ($16.8/share) | 210,000 | | |
| Purchase price and implied value* | **$361,200** | **310,800** | 672,000 |
| Less: Book value of equity acquired: | | | |
| Capital Stock | (215,000) | (185,000) | **(400,000)** |
| Retained Earnings | (88,688) | (76,312) | **(165,000)** |
| Difference between implied and book value | 57,512 | 49,488 | **107,000** |
| Land (other assets) | (57,512) | (49,488) | **(107,000)** |
| Balance | - 0 - | - 0 - | - 0 - |

* $210,000/31.25% = 672,000 where
31.25% = 12,500/40,000

**On Phan Company's books (2010)**

| | | |
|---|---|---|
| Investment in S Company | 210,000 | |
| Cash | | 210,000 |

| | | |
|---|---|---|
| Investment in S Company | 26,775 | |
| 1/1 Retained Earnings—P Company | | 26,775 |

[.225 × ($165,000 - $46,000) or the change in retained earnings from 1/1/09 to 1/1/10].

| | | |
|---|---|---|
| Investment in S Company | $13,925 | |
| Gain on revaluation | | $13,925 |

To record the adjusted carrying value of the original purchase of $137,500 to fair value of $151,200.

| | | |
|---|---|---|
| Investment in Sato Company | 83,313 | |
| Equity in Subsidiary Income | | 83,313 |

[53.75% × ($605,000 - $320,000-130,000)]

**Problem 8-14 (continued)**

Worksheet journal entries

| | | | |
|---|---|---|---|
| (1) | Equity Income (.5375 × $155,000) | 83,313 | |
| | Dividends declared – Sato Company (.5375 × $70,000) | | 37,625 |
| | Investment in Sato Company | | 45,688 |
| | To remove equity income. | | |
| (2) | Capital Stock - Sato Company | 400,000 | |
| | Retained Earnings 1/1 – Sato Company | 165,000 | |
| | Difference between Implied and Book Value | 107,000 | |
| | Investment in Sato Company | | 361,200 |
| | Noncontrolling interest | | 310,800 |
| | To eliminate investment account and create noncontrolling interest account | | |
| (3) | Other assets (Land) | 107,000 | |
| | Difference between Implied and Book Value | | 107,000 |
| | To allocate the difference between implied and book value to goodwill | | |

**Problem 8-14 (continued)**

Phan Company and Subsidiary
Consolidated Statements Workpaper
For the Year Ended December 31, 2007

| | Phan | Sato | Eliminations | | Noncontrolling | Consolidated |
|---|---|---|---|---|---|---|
| | Company | Company | Dr. | Cr. | Interest | Balances |
| **Income Statement** | | | | | | |
| Sales | 1,800,000 | 605,000 | | | | 2,405,000 |
| Gain on revaluation | 13,925 | | | | | 13,925 |
| Equity Income | 83,313 | | (1) 83,313 | | | |
| Total Revenue | 1,897,238 | 605,000 | | | | 2,418,925 |
| Cost of Goods Sold | 1,100,000 | 320,000 | | | | 1,420,000 |
| Other Expense | 350,000 | 130,000 | | | | 480,000 |
| Total Cost and Expense | 1,450,000 | 450,000 | | | | 1,900,000 |
| Net/Consolidated Income | 447,238 | 155,000 | | | | 518,925 |
| Noncontrolling Interest in Income | | | | | 71,688 | (71,688) |
| Net Income to Retained Earnings | 447,238 | 155,000 | 83,313 | | 71,688 | 447,237 |
| **Retained Earnings Statement** | | | | | | |
| 1/1 Retained Earnings: | | | | | | |
| Phan Company | 353,100 | | | | | 353,100 |
| Sato Company | | 165,000 | (2) 165,000 | | | |
| Net Income from Above | 447,238 | 155,000 | 83,313 | | 71,688 | 447,237 |
| Dividends Declared: | | | | | | |
| Phan Company | (150,000) | | | | | (150,000) |
| Sato Company | | (70,000) | | (1) 37,625 | (32,375) | |
| 12/31 Retained Earnings to Balance Sheet | 650,338 | 250,000 | 248,313 | 37,625 | 39,313 | 650,337 |

**Problem 8-14 (continued)**

| | Phan | Sato | Eliminations | | Noncontrolling | Consolidated |
|---|---|---|---|---|---|---|
| | Company | Company | Dr. | Cr. | Interest | Balances |
| **Balance Sheet** | | | | | | |
| Current Assets | 165,500 | 138,000 | | | | 303,500 |
| Investment in Sato Company | 406,888 | | | (1) 45,688<br>(2) 361,200 | | |
| Difference b/w implied and book value | | | (2) 107,000 | (3) 107,000 | | |
| Other Assets | 920,000 | 672,000 | (3) 107,000 | | | 1,699,000 |
| Total | 1,492,388 | 810,000 | | | | 2,002,500 |
| Liabilities | 142,050 | 160,000 | | | | 302,050 |
| Paid in Capital - Phan Company | 100,000 | | | | | 100,000 |
| Capital Stock: | | | | | | |
| Phan Company | 600,000 | | | | | 600,000 |
| Sato Company | | 400,000 | (2) 400,000 | | | |
| Retained Earnings from Above | 650,338 | 250,000 | 248,313 | 37,625 | 39,313 | 650,337 |
| 1/1 Noncontrolling Interest | | | | (2) 310,800 | 310,800 | |
| 12/31 Noncontrolling Interest | | | | | 350,113 | 350,113 |
| Total | 1,492,388 | 810,000 | 862,313 | 862,313 | | 2,002,500 |

## Problem 8-15 Worksheet, Multiple Stock Purchases, Equity Method

| | | |
|---|---|---|
| **On Phan Company's books** | | |
| Investment in Sato Company (36.25%) | 280,000 | |
| Cash | | 280,000 |
| Investment in Sato | 72,000 | |
| Cash | 63,000 | |
| Equity Income | | 135,000 |

No revaluation is required for additional shares purchased after control is already achieved. The new ownership percentage is 90% or 36,000 shares divided by 40,000 shares outstanding. The balance in the investment account is $758,888 ($110,500 + $26,775 + $210,000 + 45,688 + $280,000 + 13,925 +72,000).

**P Company's Carrying Value of the Investment in S Company**

| | *Before New Purchase (53.75%)* | *After New Purchase (90%)* | *Book Value of Interest Acquired* |
|---|---|---|---|
| Common Stock | (1) $215,000 | (3) $360,000 | $145,000 |
| Retained Earnings | (2) 134,375 | (4) 225,000 | 90,625 |
| Total Stockholders' Equity | $349,375 | $585,000 | $235,625 |
| Land to fair value | (5) 57,513 | (6) 96,300 | 38,787 |
| Carrying Value in S Company | 406,888 | 681,300 | $274,412 |
| Cost of New Shares | | | 280,000 |
| Decrease in Paid in Capital – Phan Company | | | $ 5,588 |

(1) .5375 × $400,000. (2) .5375 × $250,000. (3) .90 × $400,000.
(4) .90 × $250,000. (5) .5375 × $107,000. (6) .90 × $107,000.

Worksheet journal entries

| | | | |
|---|---|---|---|
| (1) | Equity Income (.90 × $150,000) | 135,000 | |
| | Dividends declared – Sato Company (.90 × $70,000) | | 63,000 |
| | Investment in Sato Company | | 72,000 |
| | To remove dividends. | | |
| (2) | Capital Stock - Sato Company | 400,000 | |
| | Retained Earnings 1/1 – Sato Company | 250,000 | |
| | Difference between Implied and Book Value | 107,000 | |
| | Paid in capital – Phan Company | 5,588 | |
| | Investment in Sato Company ($758,888-72,000) | | 686,888 |
| | Noncontrolling interest | | 75,700 |
| | To eliminate investment account and create noncontrolling interest account | | |
| (3) | Other assets (Land) | 107,000 | |
| | Difference between Implied and Book Value | | 107,000 |
| | To allocate the difference between implied and book value to goodwill | | |

**Problem 8-15 (continued)**

Phan Company and Subsidiary
Consolidated Statements Workpaper
For the Year Ended December 31, 2008

| | Phan Company | Sato Company | Eliminations Dr. | Eliminations Cr. | Noncontrolling Interest | Consolidated Balances |
|---|---|---|---|---|---|---|
| **Income Statement** | | | | | | |
| Sales | 1,800,000 | 600,000 | | | | 2,400,000 |
| Equity Income | 135,000 | | (1) 135,000 | | | |
| Total Revenue | 1,935,000 | 600,000 | | | | 2,400,000 |
| Cost of Goods Sold | 1,100,000 | 325,000 | | | | 1,425,000 |
| Other Expense | 350,000 | 125,000 | | | | 475,000 |
| Total Cost and Expense | 1,450,000 | 450,000 | | | | 1,900,000 |
| Net/Consolidated Income | 485,000 | 150,000 | | | | 500,000 |
| Noncontrolling Interest in Income | | | | | 15,000 | (15,000) |
| Net Income to Retained Earnings | 485,000 | 150,000 | 135,000 | | 15,000 | 485,000 |
| **Retained Earnings Statement** | | | | | | |
| 1/1 Retained Earnings: | | | | | | |
| Phan Company | 650,338 | | | | | 650,338 |
| Sato Company | | 250,000 | (2) 250,000 | | | |
| Net Income from Above | 485,000 | 150,000 | 135,000 | | 15,000 | 485,000 |
| Dividends Declared: | | | | | | |
| Phan Company | (150,000) | | | | | (150,000) |
| Sato Company | | (70,000) | | (1) 63,000 | (7,000) | |
| 12/31 Retained Earnings to Balance Sheet | 985,338 | 330,000 | 385,000 | 63,000 | 8,000 | 985,338 |

## Problem 8-15 (continued)

| | Phan Company | Sato Company | Eliminations Dr. | Eliminations Cr. | Noncontrolling Interest | Consolidated Balances |
|---|---|---|---|---|---|---|
| **Balance Sheet** | | | | | | |
| Current Assets | 165,500 | 218,000 | | | | 383,500 |
| Investment in Sato Company | 758,888 | | | (1) 72,000<br>(2) 686,888 | | |
| Difference b/w implied and book value | | | (2) 107,000 | (3) 107,000 | | |
| Other Assets | 920,000 | 672,000 | (3) 107,000 | | | 1,699,000 |
| Total | 1,844,388 | 890,000 | | | | 2,082,500 |
| Liabilities | 159,050 | 160,000 | | | | 319,050 |
| Paid in Capital - Phan Company | 100,000 | | (2) 5,588 | | | 94,412 |
| Capital Stock: | | | | | | |
| Phan Company | 600,000 | | | | | 600,000 |
| Sato Company | | 400,000 | (2) 400,000 | | | |
| Retained Earnings from Above | 985,338 | 330,000 | 385,000 | 63,000 | 8,000 | 985,338 |
| 1/1 Noncontrolling Interest in Net Assets | | | | (2) 75,700 | 75,700 | |
| 12/31 Noncontrolling Interest in Net Assets | | | | | 83,700 | 83,700 |
| Total | 1,844,388 | 890,000 | 1,004,588 | 1,004,588 | | 2,082,500 |

# CHAPTER 9

## ANSWERS TO QUESTIONS

1. Constructive retirement refers to the purchase of an affiliate's outstanding bonds from outsiders. From a consolidated entity viewpoint, the consolidated entity has retired its outstanding debt, and is thus treated as an early extinguishment of debt. The difference between the carrying value of the bonds and the purchase price to the purchasing affiliate is the constructive gain or loss on bond retirement.

2. The gain or loss is composed of two elements: (1) the discount or premium on the books of the issuer, and (2) the discount or premium paid by the purchaser. Discounts and/or premiums on the books of the two affiliates will be subsequently amortized to income. The cumulative effect on income of the amortization of the discount or premium by the two affiliates is equal to the constructive gain or loss.

3. The allocation of a gain or loss would be made to each affiliate based on whether the affiliate paid or issued the bonds for more or less than book value or par value. A discount (premium) to the issuer would be allocated to the issuing company as a loss (gain), whereas a discount (premium) to the purchasing affiliate would be a gain (loss). The sum of the two is the total constructive gain or loss.

4. Support for allocating the total gain or loss to the issuing company is based on the contention that the purchasing affiliate is acting as an agent for the issuing company. Since both companies are under the control of the management of the parent company, the bonds could be transferred to the issuing company. Thus, the purchase is in substance a retirement by the issuing company.

5. The noncontrolling interest is affected by the portion of the constructive gain or loss allocated to the subsidiary. Because the loss is recognized in the consolidated income statement in the year the bonds are purchased, a discount or premium amortization related to bonds that is made subsequent to the purchase is added back or is subtracted from the subsidiary's reported income. Such adjustments will increase or decrease the noncontrolling interest in the income of the subsidiary.

6.

| a. Investor Company | | b. Investee Company | |
|---|---|---|---|
| Purchase price | $338,000 | Carrying value | $360,000 |
| Par value | 350,000 | Par value | 350,000 |
| Constructive gain | $ 12,000 | Constructive gain | $ 10,000 |

7. The outside party (the maker of the note) is primarily liable; and Affiliate Y, who discounted the note with an outside party, is contingently liable for it.

8. Stock dividends are viewed as a distribution of the earliest earnings accumulated in the retained earnings account.

9. The retained earnings balance at the date of acquisition is reduced since the issuance of a stock dividend is viewed as a distribution of the earliest earnings accumulated.

10. A memorandum entry is required to recognize the number of shares received since a dividend in stock is not considered income to the recipient.

11. In the year of declaration, one additional elimination entry is required to eliminate the effects of the dividend. In subsequent periods the amounts of this entry are combined with the investment elimination entry.

12. Preferred stock of a controlled corporation held by others not in the controlled group represents noncontrolling interest in the controlled corporation. The rights of these shareholders depend on the stock's preference; possibilities are an interest in net assets, earnings, and retained earnings of the controlled corporation.

13. Excess of cost over book value is debited to Other Contributed Capital or to Retained Earnings; excess of book value acquired over cost is credited to Other Contributed Capital.

14. The preferred stock's cumulative preference would increase the net loss allocable to the common stockholders.

## SOLUTIONS TO BUSINESS ETHICS CASE

The responsibility of the management of the company is to present accurately the financial statements to the shareholders and investors. Accordingly if an error is detected in the books, it should be rectified as soon as it is discovered so that shareholders and investors are not misled. Intercompany sales are eliminated in the consolidating process. Failure to do so is a material omission, particularly when the inventories in question have not been sold to outsiders but remain in the inventories of the consolidated entity. You should not succumb to the pressure exerted by the manager of the subsidiary.

## SOLUTIONS TO EXERCISES

### Exercise 9-1

| | | | |
|---|---|---|---|
| **Part A** | Cost of bond investment | | $820,000 |
| | Par value | $1,000,000 | |
| | Unamortized discount ($60,000 × (16/20)) | 48,000 | |
| | Carrying value of bonds | 952,000 | |
| | Percent of bonds purchased | .80 | |
| | Carrying value of bonds purchased | | 761,600 |
| | Total constructive loss | | $58,400 |

| **Part B** | Pacelli Company | | Salez Company | |
|---|---|---|---|---|
| | Carrying value of bonds purchased | $761,600 | Cost of bond investment | $820,000 |
| | Par value | 800,000 | Par value of bonds purchased | 800,000 |
| | Constructive loss | $ 38,400 | Constructive loss | $ 20,000 |

**Part C** June 30 and December 31, 2012

| | | |
|---|---|---|
| Pacelli Company | | |
| Interest Expense (10%)(1/2)($1,000,000) | 50,000 | |
| Cash | | 50,000 |
| | | |
| Interest Expense | 3,000 | |
| Discount on Bonds Payable | | 3,000 |
| $60,000 / 20 interest periods = $3,000 | | |
| | | |
| Salez Company | | |
| Cash | 40,000 | |
| Interest Income ($800,000)(1/2)(10%) | | 40,000 |
| | | |
| Interest Income | 1,250 | |
| Investment in Pacelli Company Bonds | | 1,250 |
| $20,000 premium /16 periods = $1,250 | | |

**Part D**

**Note:** We have provided solutions assuming the use of any of the three methods. Since the schedules start with the same reported income of Pacelli under all three methods, this results in three different consolidated net income numbers.

| **2011** | | | Partial | Complete |
|---|---|---|---|---|
| | | Cost Method | Equity Method | Equity Method |
| Reported net income - Pacelli | | $260,000 | $260,000 | $260,000 |
| Less: Dividend income ($60,000)(.80) | | 48,000 | | |
| Less: Equity Income ($140,000)(.80) | | | 112,000 | |
| Less: Adjusted Equity Income | | | | |
| ($112,000-38,400-(80% of 20,000)) | | | | 57,600 |
| Net income from independent operations - Pacelli | | 212,000 | 148,000 | 202,400 |
| Less: Constructive loss on bond retirement | | 38,400 | 38,400 | 38,400 |
| Pacelli's contribution to consolidated income | | 173,600 | 109,600 | 164,000 |
| Reported net income of Salez | $140,000 | | | |
| Less: Constructive loss on bond retirement | 20,000 | | | |
| Salez's contribution to consolidated income | 120,000 | | | |
| | × .80 | 96,000 | 96,000 | 96,000 |
| Controlling interest in consolidated net income | | $269,600 | $205,600 | $260,000 |
| Noncontrolling interest in consolidated income | | | | |
| ($120,000 × .20) | | $24,000 | $24,000 | $24,000 |

**Exercise 9-1 (continued)**

| | | | Partial | Complete |
|---|---|---|---|---|
| **2012** | | Cost Method | Equity Method | Equity Method |
| Reported net income - Pacelli | | $280,000 | $280,000 | $280,000 |
| Less: Dividend income ($60,000)(.80) | | 48,000 | | |
| Less: Equity income ($190,000)(.80) | | | 152,000 | |
| Less: Adjusted Equity income | | | | |
| ($152,000 + $4,800 + (.80 × $2,500)) | | | | 158,800 |
| Net income from independent operations - Pacelli | | 232,000 | 128,000 | 121,200 |
| Add: Constructive loss recorded* | | 4,800 | 4,800 | 4,800 |
| Pacelli's contribution to consolidated income | | 236,800 | 132,800 | 126,000 |
| Reported net income of Salez | $190,000 | | | |
| Add: Constructive loss recorded** | 2,500 | | | |
| Salez's contribution to consolidated income | 192,500 | | | |
| | × 0.80 | 154,000 | 154,000 | 154,000 |
| Controlling interest in consolidated net income | | $390,800 | $286,800 | $280,000 |
| | | | | |
| Noncontrolling interest in consolidated income | | | | |
| ($192,500 × .20) | | $38,500 | $38,500 | $38,500 |

*($3,000 × 2 × .80) = $4,800 or constructive loss divided by 8 years = $38,400/8 years = $4,800
** Constructive loss divided by 8 years = $20,000/8 = $2,500

**Exercise 9-2**

**December 31, 2011**

| | Cost and Partial Equity | | Complete Equity | |
|---|---|---|---|---|
| Loss on Constructive Retirement of Bonds | 38,400 | | 38,400 | |
| Discount on Bonds Payable | | 38,400 | | 38,400 |
| | | | | |
| Loss on Constructive Retirement of Bonds | 20,000 | | 20,000 | |
| Investment in Pacelli Company Bonds | | 20,000 | | 20,000 |
| | | | | |
| Bonds Payable | 800,000 | | 800,000 | |
| Investment in Pacelli Company Bonds | | 800,000 | | 800,000 |

**December 31, 2012**

| | | | | |
|---|---|---|---|---|
| Beginning Retained Earnings - Pacelli Company | 38,400 | | | |
| Discount on Bonds Payable | | 38,400 | | |
| | | | | |
| Investment in Salez | | | 38,400 | |
| Discount on Bonds Payable | | | | 38,400 |
| | | | | |
| Discount on Bonds Payable | 4,800 | | 4,800 | |
| Interest Expense (($3,000 + $3,000) × .80) | | 4,800 | | 4,800 |

**Exercise 9-2 (continued)**

| | Cost and Partial Equity | | Complete Equity | |
|---|---|---|---|---|
| Beginning Retained Earnings - Pacelli | 16,000 | | | |
| Noncontrolling Interest | 4,000 | | | |
| Investment in Pacelli Company Bonds | | 20,000 | | |
| | | | | |
| Investment in Salez | | | 16,000 | |
| Noncontrolling Interest | | | 4,000 | |
| Investment in Pacelli Company Bonds | | | | 20,000 |
| | | | | |
| Investment in Pacelli Company Bonds | 2,500 | | 2,500 | |
| Interest Income ($1,250 + $1,250) | | 2,500 | | 2,500 |
| | | | | |
| Interest Income | 80,000 | | 80,000 | |
| Interest Expense | | 80,000 | | 80,000 |
| Nominal interest of $100,000 × .80 = $80,000 | | | | |
| | | | | |
| Bonds Payable | 800,000 | | 800,000 | |
| Investment in Pacelli Company | | 800,000 | | 800,000 |

**December 31, 2013**

| | Cost and Partial Equity | | Complete Equity | |
|---|---|---|---|---|
| Beginning Retained Earnings - Pacelli | 38,400 | | | |
| Discount on Bonds Payable | | 38,400 | | |
| | | | | |
| Discount on Bonds Payable | 9,600 | | | |
| Beginning Retained Earnings - Pacelli | | 4,800 | | |
| Interest Expense (($3,000 + $3,000) × .80) | | 4,800 | | |
| | | | | |
| Investment in Salez | | | 38,400 | |
| Discount on Bonds Payable | | | | 38,400 |
| | | | | |
| Discount on Bonds Payable | | | 9,600 | |
| Investment in Salez | | | | 4,800 |
| Interest Expense (($3,000 + $3,000) × .80) | | | | 4,800 |
| | | | | |
| Beginning Retained Earnings - Pacelli | 16,000 | | | |
| –Noncontrolling Interest | 4,000 | | | |
| Investment in Pacelli Company Bonds | | 20,000 | | |
| | | | | |
| Investment in Pacelli Company Bonds | 5,000 | | | |
| Beginning Retained Earnings - Pacelli | | 2,000 | | |
| Noncontrolling Interest | | 500 | | |
| Interest Income ($1,250 + $1,250) | | 2,500 | | |

## Exercise 9-2 (continued)

| | Cost and Partial Equity | | Complete Equity | |
|---|---|---|---|---|
| Investment in Salez | | | 16,000 | |
| Noncontrolling Interest | | | 4,000 | |
| Investment in Pacelli Company Bonds | | | | 20,000 |
| | | | | |
| Investment in Pacelli Company Bonds | | | 5,000 | |
| Investment in Salez | | | | 2,000 |
| Noncontrolling Interest | | | | 500 |
| Interest Income ($1,250 + $1,250) | | | | 2,500 |
| | | | | |
| Interest Income | 80,000 | | 80,000 | |
| Interest Expense | | 80,000 | | 80,000 |
| Nominal interest of $100,000 × .80 = $80,000 | | | | |
| | | | | |
| Bonds Payable | 800,000 | | 800,000 | |
| Investment in Pacelli Company | | 800,000 | | 800,000 |

## Exercise 9-3

**Part A**

| | | |
|---|---|---|
| Cost of bond investment ($510,000 × .90) | | $459,000 |
| Par value | $850,000 | |
| Unamortized premium ($42,500 × (8/10)) | 34,000 | |
| Carrying value of bonds | 884,000 | |
| Percent of bonds purchased (510/850) | .60 | |
| Carrying value of bonds purchased | | 530,400 |
| Total constructive gain | | $71,400 |

**Part B**

| Fairfield Company | | Weber Company | |
|---|---|---|---|
| Cost of bond investment | $459,000 | Carrying value of bonds purchased | $530,400 |
| Par value | 510,000 | Par value | 510,000 |
| Constructive gain | $ 51,000 | Constructive gain | $ 20,400 |

**Part C** June 30 and December 31, 2012

Fairfield Company

| | | |
|---|---|---|
| Cash ($510,000 × .10 × $\frac{6}{12}$) | 25,500 | |
| Interest Income | | 25,500 |
| | | |
| Investment in Weber Company Bonds | 6,375 | |
| Interest Income | | 6,375 |
| $51,000 / 8 periods = $6,375 | | |

**Exercise 9-3 (continued)**

| | | |
|---|---|---|
| Weber Company | | |
| Interest Expense | 42,500 | |
| Cash ($850,000 × .10 × $\frac{6}{12}$) | | 42,500 |
| | | |
| Premium on Bonds | 4,250 | |
| Interest Expense | | 4,250 |
| $34,000 / 8 periods = $4,250 | | |

**Part D**

**Note:** We have provided solutions assuming the use of any of the three methods. Since the schedules start with the same reported income of Fairfield under all three methods, this results in three different consolidated net income numbers.

| **2011** | | Cost Method | Partial Equity Method | Complete Equity Method |
|---|---|---|---|---|
| Reported net income - Fairfield | | $275,000 | $275,000 | $275,000 |
| Less: Dividend income ($60,000 × .90) | | 54,000 | | |
| Less: Equity income ($190,000)(.90) | | | 171,000 | |
| Less: Adjusted Equity income (171,000+51,000 + .9(20,400)) | | | | 240,360 |
| Net income from independent operations – Fairfield | | 221,000 | 104,000 | 34,640 |
| Add: Constructive gain on bond retirement | | 51,000 | 51,000 | 51,000 |
| Fairfield's contribution to consolidated income | | 272,000 | 155,000 | 85,640 |
| Reported net income - Weber | $190,000 | | | |
| Add: Constructive gain on bond retirement | 20,400 | | | |
| Weber's contribution to consolidated income | 210,400 | | | |
| | × .90 | 189,360 | 189,360 | 189,360 |
| Controlling interest in consolidated net income | | $461,360 | $344,360 | $275,000 |
| | | | | |
| Noncontrolling interest in consolidated income ($210,400 × .10) | | $21,040 | $21,040 | $21,040 |

## Exercise 9-3 (continued)

| 2012 | | | Partial | Complete |
|---|---|---|---|---|
| | | Cost Method | Equity Method | Equity Method |
| Reported net income - Fairfield | | $350,000 | $350,000 | $350,000 |
| Less: Dividend income ($80,000 × .90) | | 72,000 | | |
| Less Equity income ($225,000)(.90) | | | 202,500 | |
| Less: Adjusted Equity income<br>($202,500 - $12,750 - (.9)5,100) | | | | 185,160 |
| Net income from independent operations - Fairfield | | 278,000 | 147,500 | 164,840 |
| Less: Constructive gain recorded* | | 12,750 | 12,750 | 12,750 |
| Fairfield's contribution to consolidated income | | 265,250 | 134,750 | 152,090 |
| Reported net income - Weber | $225,000 | | | |
| Less: Constructive gain recorded** | 5,100 | | | |
| Weber's contribution to consolidated income | 219,900 | | | |
| | × .90 | 197,910 | 197,910 | 197,910 |
| Controlling interest in consolidated net income | | $463,160 | $332,660 | $350,000 |
| Noncontrolling interest in consolidated income<br>($219,900 × .10) | | $21,990 | $21,990 | $21,990 |

* $6,375 × 2 = $12,750 or $51,000/4 periods = $12,750

**$4,250 × .60 = $2,550; $2,550 × 2 = $5,100

## Exercise 9-4

### December 31, 2011

| | Cost and Partial Equity | | Complete Equity | |
|---|---|---|---|---|
| Premium on Bonds Payable ($34,000 × .60) | 20,400 | | 20,400 | |
| Constructive Gain on Bond Retirement | | 20,400 | | 20,400 |
| Investment in Weber Company Bonds | 51,000 | | 51,000 | |
| Constructive Gain on Bond Retirement | | 51,000 | | 51,000 |
| Bonds Payable | 510,000 | | 510,000 | |
| Investment in Weber Company Bonds | | 510,000 | | 510,000 |

**Exercise 9-4 (continued)**

**December 31, 2012**

| | Cost and Partial Equity | | Complete Equity | |
|---|---|---|---|---|
| Investment in Weber Co. Bonds | 51,000 | | | |
| Beginning Retained Earnings - Fairfield | | 51,000 | | |
| Investment in Weber Co. Bonds | | | 51,000 | |
| Investment in Weber Co. Stock | | | | 51,000 |
| Interest Income ($6,375 × 2) | 12,750 | | 12,750 | |
| Investment in Weber Company Bonds | | 12,750 | | 12,750 |
| Premium on Bonds Payable | 20,400 | | | |
| Beginning Retained Earnings - Fairfield | | 18,360 | | |
| Noncontrolling Interest | | 2,040 | | |
| Premium on Bonds Payable | | | 20,400 | |
| Investment in Weber Co. Stock | | | | 18,360 |
| Noncontrolling Interest | | | | 2,040 |
| Interest Expense (($4,250 × 2) × .60) | 5,100 | | 5,100 | |
| Premium on Bonds Payable | | 5,100 | | 5,100 |
| Interest Income | 51,000 | | 51,000 | |
| Interest Expense | | 51,000 | | 51,000 |
| Bonds Payable | 510,000 | | 510,000 | |
| Investment in Weber Company Bonds | | 510,000 | | 510,000 |

**Exercise 9-4 (continued)**

**December 31, 2013**

| | Cost and Partial Equity | | Complete Equity | |
|---|---|---|---|---|
| Investment in Weber Co. Bonds | 51,000 | | | |
| Beginning Retained Earnings - Fairfield | | 51,000 | | |
| | | | | |
| Investment in Weber Co. Bonds | | | 51,000 | |
| Investment in Weber Co. Stock | | | | 51,000 |
| | | | | |
| Beginning Retained Earnings – Fairfield | 12,750 | | | |
| Interest Income ($6,375 × 2) | 12,750 | | 12,750 | |
| Investment in Weber Company Bonds | | 25,500 | | 12,750 |
| | | | | |
| Investment in Weber Co. Stock | | | 12,750 | |
| Interest Income ($6,375 × 2) | | | 12,750 | |
| Investment in Weber Company Bonds | | | | 25,500 |
| | | | | |
| Premium on Bonds Payable | 20,400 | | | |
| Beginning Retained Earnings - Fairfield | | 18,360 | | |
| Noncontrolling Interest | | 2,040 | | |
| | | | | |
| Premium on Bonds Payable | | | 20,400 | |
| Investment in Weber Co. Stock | | | | 18,360 |
| Noncontrolling Interest | | | | 2,040 |
| | | | | |
| Beginning Retained Earnings – Fairfield | 4,590 | | | |
| Noncontrolling Interest | 510 | | | |
| Interest Expense (($4,250 × 2) × .60) | 5,100 | | | |
| Premium on Bonds Payable | | 10,200 | | |
| | | | | |
| Investment in Weber Co. Stock | | | 4,590 | |
| Noncontrolling Interest | | | 510 | |
| Interest Expense (($4,250 × 2) × .60) | | | 5,100 | |
| Premium on Bonds Payable | | | | 10,200 |
| | | | | |
| Interest Income | 51,000 | | 51,000 | |
| Interest Expense | | 51,000 | | 51,000 |
| | | | | |
| Bonds Payable | 510,000 | | 510,000 | |
| Investment in Weber Company Bonds | | 510,000 | | 510,000 |

## Exercise 9-5

| | | |
|---|---|---|
| 1. | Carrying value of debt - 1/2/2011 | $505,000 |
| | Less: Premium amortization - (($5,000/20) × 2 periods) | 500 |
| | Carrying value of debt - 12/31/2011 | $504,500 |
| 2. | Stated interest (30% of $500,000 × .11) | $16,500 |
| | Add: Discount amortization (($10,000/20) × 2 periods) | 1,000 |
| | Interest revenue | $17,500 |
| 3. | Stated interest ($500,000 × .11) | $55,000 |
| | Less: Premium amortization ($5,000/20)(2) | 500 |
| | Interest expense | $54,500 |
| 4. | Cost of bond investment (1/2/2011) | $140,000 |
| | Add: Discount amortization * | 1,000 |
| | Investment account balance - 12/31/2011 | $141,000 |

* $500,000 par × 30% less $140,000 paid divided by 10 years = $1,000

**Exercise 9-5 (continued)**

| | | | |
|---|---|---|---|
| 5. | Reported net income - Peoples | | $300,000 |
| | Less: Dividend income ($90,000 × .80) | | 72,000 |
| | Independent net income | | 228,000 |
| | Add: Constructive gain on bond retirement | | 10,000 |
| | Less: Constructive gain recorded during year | | (1,000) |
| | Contribution of Peoples to consolidated income | | 237,000 |
| | Reported net income - Schmidt | $320,000 | |
| | Less: amortization of difference between implied and book value - COGS | (60,000) | |
| | Add: Constructive gain on bond retirement ($505,000 - $500,000) × .30 = | 1,500 | |
| | Less: Constructive gain recorded during year | (150) | |
| | Income after adjustment for constructive gain | 261,350 | |
| | | × .80 | |
| | Parent's share of adjusted income | | 209,080 |
| | Controlling interest in consolidated net income | | $446,080 |

Computation and Allocation of Difference between Implied and Book Value Acquired

| | Parent Share | Non-Controlling Share | Entire Value |
|---|---|---|---|
| Purchase price and implied value | **$900,000** | **225,000** | 1,125,000 |
| Less: Book value of equity acquired: | 800,000 | 200,000 | **1,000,000** |
| Difference between implied and book value | 100,000 | 25,000 | **125,000** |
| Allocated to inventory | (48,000) | (12,000) | **(60,000)** |
| Balance | 52,000 | 13,000 | 65,000 |
| Goodwill | (52,000) | (13,000) | **(65,000)** |
| Balance | - 0 - | - 0 - | - 0 – |

6. Noncontrolling interest in consolidated income $261,350 × .20 = $52,270

**Exercise 9-6**

| | | |
|---|---|---|
| **Part A** | Face (Par) value of note | $60,000 |
| | Interest ($60,000 × .12 × (90/360)) | 1,800 |
| | Maturity value | 61,800 |
| | Less: Discount ($61,800 × .13 × (60/360)) | 1,339 |
| | Proceeds | $60,461 |

**Exercise 9-6 (continued)**

| **Part B** | Parent Company Dr (Cr) | Wyatt Corporation Dr (Cr) | Elimination Entries Debit | Elimination Entries Credit | Consolidated Balances Dr (Cr) |
|---|---|---|---|---|---|
| Notes Receivable | 60,000 | 60,000 | | 60,000* | 60,000 |
| Notes Receivable Discounted | (60,000) | (60,000) | 60,000* | | (60,000) |

*Elimination entry

| | | |
|---|---|---|
| Notes Receivable Discounted | 60,000 | |
| Notes Receivable | | 60,000 |

The results of the elimination entry is to show that the consolidated entity has a contingent liability for $60,000.

**Exercise 9-7**

**Part A** Memorandum entry - Received a stock dividend of 1,050 shares of Salata Company common stock (7,000 shares × .15)

| | | | |
|---|---|---|---|
| **Part B** | Investment in Salata Company | 70,000 | |
| | Beginning Retained Earnings - Perez | | 70,000 |
| | ($500,000 - $400,000) × .70 = $70,000 | | |
| | | | |
| | Common Stock ((1,500 shares × $100) × .70) | 105,000 | |
| | Other Contributed Capital ((1,500 × $60) × .70) | 63,000 | |
| | Stock Dividend Declared | | 168,000 |
| | ((10,000 shares × .15 × $160) × .70 = $168,000) | | |
| | | | |
| | Beginning Retained Earnings – Salata | 500,000 | |
| | Other Contributed Capital | 100,000 | |
| | Common Stock | 1,000,000 | |
| | Land (Difference between Implied and Book Value) | 285,714 | |
| | Investment in Salata Company ($1,250,000 + $70,000) | | 1,320,000 |
| | Noncontrolling interest [$535,714* + ($500,000 – 400,000) x .30] | | 565,714 |

* $1,250,000/.7 = $1,785,714 x .3 = $535,714

| | | | |
|---|---|---|---|
| **Part C** | Investment in Salata Company ($180,000 × .70) | 126,000 | |
| | Beginning Retained Earnings - Perez | | 126,000 |

| | | |
|---|---|---|
| Retained earnings balance 1/1/2012 ($500,000 + $80,000 - $240,000*) | | $340,000 |
| Retained earnings balance - date of acquisition | $400,000 | |
| Less: Stock dividend | 240,000 | 160,000 |
| Increase in retained earnings | | $180,000 |

* (($1,000,000/$100) × .15 × $160)

## Exercise 9-8

| | | | |
|---|---|---|---|
| **Part A** | **2011** | | |
| | Cash ($90,000 × .90) | 81,000 | |
| | Investment in Swartz Corporation | | 81,000 |
| | **2012** | | |
| | Cash ($40,000 × .9) | 36,000 | |
| | Investment in Swartz Corporation | | 36,000 |

| | | | |
|---|---|---|---|
| **Part B** | Equity in Subsidiary Income ($65,000)(.90) | 58,500 | |
| | Investment in Swartz Corporation | 22,500 | |
| | Dividends Declared ($90,000 × .90) | | 81,000 |
| | Common Stock - Swartz Corporation | 500,000 | |
| | Beginning Retained Earnings - Swartz Corporation | 200,000 | |
| | Difference between Implied and Book Value | 100,000 | |
| | Investment in Swartz Corporation | | 720,000 |
| | Noncontrolling interest | | 80,000 |
| | Land | 100,000 | |
| | Difference between Implied and Book Value | | 100,000 |

| | | | |
|---|---|---|---|
| **Part C** | Equity in Subsidiary Income ($80,000)(.90) | 72,000 | |
| | Investment in Swartz Corporation | 36,000 | |
| | Dividends Declared ($40,000 × .90) | | 36,000 |

Retained earnings - 1/1/2013 ($200,000 + $65,000 - $90,000 + $80,000 - $40,000) $215,000

| | | |
|---|---|---|
| Common Stock - Swartz Corporation | 500,000 | |
| Beginning Retained Earnings - Swartz Corporation | 215,000 | |
| Difference between Implied and Book Value | 100,000 | |
| Investment in Swartz Corporation | | 733,500 |
| Noncontrolling interest [$80,000 + ($215,000 – 200,000) x .10] | | 81,500 |
| Land | 100,000 | |
| Difference between Implied and Book Value | | 100,000 |

| | |
|---|---|
| Cost of investment | $720,000 |
| Equity income (2011), .90 × $65,000 | 58,500 |
| Dividends (2011), .90 × $90,000 | (81,000) |
| Equity income (2012), .90 × $80,000 | 72,000 |
| Dividends (2012), .90 × $90,000 | (81,000) |
| Investment account | $733,500 |

| | | | |
|---|---|---|---|
| **Part D** | **2011** | | |
| | Cash ($90,000 × .90) | 81,000 | |
| | Dividend Income ($65,000 × .90) | | 58,500 |
| | Investment in Swartz Corporation | | 22,500 |

**Exercise 9-8 (continued)**

**2012**

| | | |
|---|---|---|
| Cash ($40,000 × .9) | 36,000 | |
| Dividend Income | | 36,000 |

**Exercise 9-9**

**Part A**

**Cost Method**

| | | |
|---|---|---|
| Investment in Sung Company Preferred Stock | 70,000 | |
| Investment in Sung Company Common Stock | 400,000 | |
| Cash | | 470,000 |
| | | |
| Cash (preferred stock) | 14,400 | |
| Dividend Income ($200,000 × 12% × 30%) | | 7,200 |
| Investment in Sung Company Preferred Stock ($200,000 × 12% × 30%) | | 7,200 |
| | | |
| Cash ($50,000 - $48,000) × 80%) | 1,600 | |
| Dividend Income (common stock) | | 1,600 |

**Equity Method (complete and partial)**

| | | |
|---|---|---|
| Investment in Sung Company Preferred Stock | 70,000 | |
| Investment in Sung Company Common Stock | 400,000 | |
| Cash | | 470,000 |
| | | |
| Cash (preferred stock) | 14,400 | |
| Equity in Subsidiary Income –Preferred Stock | | 7,200 |
| Investment in Sung Company Common Stock | | 7,200 |
| | | |
| Cash | 1,600 | |
| Investment in Sung Company Common Stock | | 1,600 |
| | | |
| Investment in Sung Company Common Stock | 52,800 | |
| Equity in Subsidiary Income ($90,000 – ($200,000 × .12))(.80) | | 52,800 |

| | Preferred Stock | Common Stock |
|---|---|---|
| Arrears | $24,000 | |
| Current year | 24,000 | $2,000 |
| Total | 48,000 | 2,000 |
| Percentage interest | .30 | .80 |
| | $14,400 | $1,600 |

**Exercise 9-9 (continued)**

| | | | |
|---|---|---|---|
| **Part B** | Reported net income - 2011 | $90,000 | |
| | Allocation to preferred stock interest ($200,000 × .12) | 24,000 × .70 = | $16,800 |
| | Residual to common stock interest | $66,000 × .20 = | 13,200 |
| | Noncontrolling interest in 2011 net income | | $30,000 |

**Part C**

**Cost Method**

| | | |
|---|---|---|
| Investment in Sung Company Preferred Stock | 7,200 | |
| Dividends Declared | | 7,200 |
| | | |
| Dividend Income | 8,800 | |
| Dividends Declared | | 8,800 |
| | | |
| Beginning Retained Earnings - Sung Company | 24,000 | |
| Preferred Stock | 200,000 | |
| Other Contributed Capital (or Retained Earnings) | 9,333 | |
| Investment in Sung Company Preferred Stock | | 70,000 |
| Noncontrolling interest | | 163,333 |

Computation and Allocation of Difference between Implied and Book Value Acquired (Preferred)

| | Parent Share | Non-Controlling Share | Entire Value |
|---|---|---|---|
| Purchase price and implied value | **$70,000** | **163,333** | 233,333 |
| Less: Book value of equity acquired | | | |
| Preferred Stock | (60,000) | (140,000) | (**200,000)** |
| Retained Earnings (dividends in arears) | (7,200) | (16,800) | **(24,000)** |
| Difference between implied and book value | 2,800 | 6,533 | **9,333** |

| | | |
|---|---|---|
| Beginning Retained Earnings - Sung Company ($100,000 - $24,000) | 76,000 | |
| Common Stock | 400,000 | |
| Land (Difference between Implied and Book Value)* | 24,000 | |
| Investment in Sung Company Common Stock | | 400,000 |
| Noncontrolling interest | | 100,000 |

[$500,000 - $400,000 – ($100,000-$24,000)] = $24,000

**Equity Method (complete and partial)**

| | | |
|---|---|---|
| Investment in Sung Company Preferred Stock | 7,200 | |
| Investment in Sung Company Common Stock | 7,200 | |
| Dividends Declared – Preferred Stock | | 14,400 |
| | | |
| Equity in Subsidiary Income | 52,800 | |
| Dividends declared – Common Stock | | 1,600 |
| Investment in Sung Company Common Stock | | 51,200 |

**Exercise 9-9 (continued)**

| | | |
|---|---|---|
| Beginning Retained Earnings - Sung Company | 24,000 | |
| Preferred Stock | 200,000 | |
| Other Contributed Capital (or Retained Earnings) | 9,333 | |
| Investment in Sung Company Preferred Stock | | 70,000 |
| Noncontrolling interest | | 163,333 |

| | | |
|---|---|---|
| Beginning Retained Earnings - Sung Company ($100,000 - $24,000) | 76,000 | |
| Common Stock | 400,000 | |
| Land (Difference between Implied and Book Value) | 24,000 | |
| Investment in Sung Company Common Stock | | 400,000 |
| Noncontrolling interest | | 100,000 |

**Exercise 9-10**

| | Case 1 | | Case 2 | | Case 3 | |
|---|---|---|---|---|---|---|
| Beginning Retained Earnings - Sam's[a] | 2,000 | | 11,600 | | 9,000 | |
| Preferred Stock | 40,000 | | 40,000 | | 40,000 | |
| Other Contributed Capital* | 13,000 | | 3,400 | | 6,000 | |
| Investment in Preferred Stock | | 55,000 | | 55,000 | | 55,000 |

* The difference between the implied value of the preferred stock investment and the book value acquired is not allocated to specific assets or liabilities, but rather is accounted for as an equity transaction and debited to Other Contributed Capital.

| | | | | | | |
|---|---|---|---|---|---|---|
| Beginning Retained Earnings - Sam's[a] | 105,000 | | 81,000 | | 87,500 | |
| Common Stock | 500,000 | | 500,000 | | 500,000 | |
| Other Contributed Capital | 160,000 | | 160,000 | | 160,000 | |
| Land (difference between implied & book value) | 151,667 | | 175,667 | | 169,167 | |
| Investment in Common Stock | | 550,000 | | 550,000 | | 550,000 |
| Noncontrolling interest | | 366,667 | | 366,667 | | 366,667 |

[a]Allocation of Retained Earnings of $110,000:

| | Case 1 | Case 2 | Case 3 |
|---|---|---|---|
| To Preferred Stock | $5,000 | $29,000 | $22,500 |
| To Common Stock | 105,000 | 81,000 | 87,500 |
| | $110,000 | $110,000 | $110,000 |
| | | | |
| Par value | $100,000 | $100,000 | $100,000 |
| Call premium | 5,000 | 5,000 | 5,000 |
| Dividends in arrears | | 24,000 | |
| Fully participating (1/6)(110-5) | | | 17,500 |
| Total | 105,000 | 129,000 | 122,500 |
| Par value | 100,000 | 100,000 | 100,000 |
| Retained earnings to preferred | 5,000 | 29,000 | 22,500 |
| Peterson's percentate | 40% | 40% | 40% |
| Beginning Retained Earnings – Sam's | 2,000 | 11,600 | 9,000 |

## Exercise 9-10 (continued)

Alternatively: $5,000 + ($100/$100+$500) × $105,000 = $5,000 + $17,500 = $22,500;

$$\frac{\$500}{\$600} \times \$105,000 = \$87,500$$

## Exercise 9-11

### Cost Method

| Case | 1 | 2 | 3 | 4 |
|---|---|---|---|---|
| Reported net income - Perez Co. | $200,000 | $200,000 | $200,000 | $200,000 |
| Less: Dividend income[a] | 32,800 | 20,000 | 31,500 | 25,900 |
| Independent income | 167,200 | 180,000 | 168,500 | 174,100 |
| Perez Company's interest in net income of Serrano[b] | 60,800 | 60,800 | 56,000 | 56,000 |
| Controlling interest in consolidated net income | $228,000 | $240,800 | $224,500 | $230,100 |

[a] Computation of dividend income

| | Preferred Stock | | Common | |
|---|---|---|---|---|
| Case 1 – Noncumulative, nonparticipating | Arrears* | Current | Stock | Total |
| Current | | $8,000 | $37,000 | $45,000 |
| | | × .4 | × .8 | |
| | | $3,200 | $29,600 | $32,800 |
| Case 2 – Cumulative and nonparticipating | | | | |
| Arrears ($100,000 × .08 × 2) | $16,000 | | | $16,000 |
| Current | | $8,000 | $21,000 | 29,000 |
| | $16,000 | 8,000 | 21,000 | $45,000 |
| | | × .4 | × .8 | |
| | | $3,200 | $16,800 | $20,000 |

| | Preferred Stock | | Common | |
|---|---|---|---|---|
| Case 3 – Noncumulative and fully participating | Arrears* | Current | Stock | Total |
| Current | | $8,000 | $24,000 [1] | $32,000 |
| Participating: | | | | |
| ($100/$400) × $13,000 | | 3,250 | | |
| ($300/$400) × $13,000 | | | 9,750 | 13,000 |
| | | $11,250 | $33,750 | $45,000 |
| | | × .4 | × .8 | |
| | | $4,500 | $27,000 | $31,500 |

[1] $300,000 × .08

**Exercise 9-11 (continued)**

Case 4 – Cumulative and fully participating

| | | | | |
|---|---|---|---|---|
| Arrears ($100,000 × .08) | $8,000 | | | $8,000 |
| Current | | $8,000 | $24,000 | 32,000 |
| Participating: | | | | |
| ($100/$400) × $5,000 | | 1,250 | | |
| ($300/$400) × $5,000 | | | 3,750 | 5,000 |
| | $8,000 | 9,250 | 27,750 | $45,000 |
| | | × .4 | × .8 | |
| | | $3,700 | $22,200 | $25,900 |

*Dividends in arrears at date of acquisition are accounted for as a liquidating dividend.

b Allocation of reported net income of Serrano, $80,000

| | | | |
|---|---|---|---|
| Cases 1 and 2 | Preferred Stock | $8,000 × .4 = | $3,200 |
| | Common Stock ($80,000 - $8,000) | $72,000 × .8 = | 57,600 |
| | Total | | $60,800 |

| Cases 3 and 4 | Preferred Stock | Common Stock | Total |
|---|---|---|---|
| Current year | $8,000 | $24,000 | $32,000 |
| Participating | | | |
| ($100/$400) × $48,000 | 12,000 | | |
| ($300/$400) × $48,000 | | 36,000 | 48,000 |
| | 20,000 | 60,000 | $80,000 |
| | × .4 | × .8 | |
| | $8,000 | $48,000 | $56,000 |

## Exercise 9-12

**Part A**

| | | |
|---|---|---|
| Cost of bond investment | | $77,362 |
| Par value | $100,000 | |
| Unamortized discount | 6,462 | |
| Carrying value of bonds | 93,537 | |
| Percent of bonds purchased | .80 | |
| Carrying value of bonds purchased (rounded up) | | 74,830 |
| Total constructive loss | | $2,532 |

**Part B**

| Pacman Company | | Space Invaders Company | |
|---|---|---|---|
| Carrying value of bonds purchased | $74,830 | Cost of bond investment | $77,362 |
| Par value | 80,000 | Par value of bonds purchased | 80,000 |
| Constructive loss | $ 5,170 | Constructive gain | $ 2,638 |

**Part C** July 1 and January, 2012

Pacman Company's amortization schedule

| Date | (a)<br>Interest<br>Expense<br>(10%) | (b)<br>Cash<br>Payment | (c)<br>Discount<br>Amortization<br>(a-b) | (d)<br>Carrying value<br>(on Balance<br>Sheet) |
|---|---|---|---|---|
| 12/31/2009 | | | | $ 92,278 |
| 6/30/2010 | 4,614 | 4,000 | 614 | 92,892 |
| 12/31/2010 | 4,645 | 4,000 | 645 | 93,537 |
| 6/30/2011 | 4,677 | 4,000 | 677 | 94,214 |
| 12/31/2011 | 4,711 | 4,000 | 711 | 94,925 |
| 6/30/2012 | 4,746 | 4,000 | 746 | 95,671 |
| 12/31/2012 | 4,783 | 4,000 | 783 | 96,454 |
| 6/30/2013 | 4,823 | 4,000 | 823 | 97,277 |
| 12/31/2013 | 4,864 | 4,000 | 864 | 98,141 |
| 6/30/2014 | 4,907 | 4,000 | 907 | 99,048 |
| 12/31/2014 | 4,952 | 4,000 | 952 | 100,000 |

**Exercise 9-12 (continued)**

Space Invaders Company's amortization schedule

| Date | (a)<br>Interest<br>Income | (b)<br>Cash<br>Receipt | (c)<br>Premium<br>Amortization | (d)<br>Carrying value<br>(on Balance<br>Sheet) |
|---|---|---|---|---|
| 12/31/2010 | | | | 77,362 |
| 6/30/2011 | 3,481 | 3,200 | 281 | 77,643 |
| 12/31/2011 | 3,494 | 3,200 | 294 | 77,937 |
| 6/30/2012 | 3,507 | 3,200 | 307 | 78,244 |
| 12/31/2012 | 3,521 | 3,200 | 321 | 78,565 |
| 6/30/2013 | 3,535 | 3,200 | 335 | 78,900 |
| 12/31/2013 | 3,551 | 3,200 | 351 | 79,251 |
| 6/30/2014 | 3,566 | 3,200 | 366 | 79,617 |
| 12/31/2014 | 3,583 | 3,200 | 383 | 80,000 |

**June 30, 2011**

| | | |
|---|---|---|
| Pacman Company | | |
| Interest Expense | 4,000 | |
| Cash | | 4,000 |
| | | |
| Interest Expense | 677 | |
| Discount on Bonds Payable | | 677 |
| | | |
| Space Invaders Company | | |
| Cash | 3,200 | |
| Interest Income ($80,000)(1/2)(8%) or (0.80)(4,000) | | 3,200 |
| | | |
| Investment in Pacman Company Bonds | 281 | |
| Interest Income | | 281 |

**December 31, 2011**

| | | |
|---|---|---|
| Pacman Company | | |
| Interest Expense | 4,000 | |
| Cash | | 4,000 |
| | | |
| Interest Expense | 711 | |
| Discount on Bonds Payable | | 711 |
| | | |
| Space Invaders Company | | |
| Cash | 3,200 | |
| Interest Income ($80,000)(1/2)(8%) or (0.80)(4,000) | | 3,200 |
| | | |
| Interest Income | 294 | |
| Investment in Pacman Company Bonds | | 294 |

**Exercise 9-12 (continued)**

**Part D**

**Note:** We have provided solutions assuming the use of any of the three methods.

| **2010** | | Cost Method | Partial Equity Method | Complete Equity Method |
|---|---|---|---|---|
| Reported net income - Pacman | | $260,000 | $316,000 | $312,677 |
| Less: Dividend income ($60,000)(.70) | | -42,000 | | |
| Less: Equity Income ($140,000)(.70) | | | -98,000 | |
| Less: Adjusted Equity Income ($98,000 - 5,170 + (70% of 2,638)) | | | | -94,677 |
| Net income from independent operations - Pacman | | 218,000 | 218,000 | 218,000 |
| Less: Constructive loss on bond retirement | | -5,170 | -5,170 | -5,970 |
| Pacman contribution to consolidated income | | 212,830 | 212,830 | 212,830 |
| Reported net income of Space Invaders | $140,000 | | | |
| Add: Constructive gain on bond retirement | 2,638 | | | |
| Space Invaders contribution to consolidated income | 142,638 | | | |
| | ×.70 | 99,847 | 99,847 | 99,847 |
| Controlling interest in consolidated net income | | $312,677 | $312,677 | $312,677 |
| Noncontrolling interest in consolidated income ($142,638 ×.30) | | $42,791 | $42,791 | $42,791 |

| | | | Partial | Complete |
|---|---|---|---|---|
| **2011** | | Cost Method | Equity Method | Equity Method |
| Reported net income - Pacman | | $280,000 | $371,000 | $371,708 |
| Less: Dividend income ($60,000)(.70) | | -42,000 | | |
| Less: Equity income ($190,000)(.70) | | | -133,000 | |
| Less: Adjusted Equity income | | | | |
| ($133,000 + ($677 +711) × .8 - (.70 × (281+294))) | | | | -133,708 |
| Net income from independent operations - Pacman | | 238,000 | 238,000 | 238,000 |
| Add: Constructive loss recorded* (677+711) × 0.8 | | 1,110 | 1, 110 | 1, 110 |
| Pacman contribution to consolidated income | | 239,388 | 239,388 | 239,388 |
| Reported net income of Space Invaders | $190,000 | | | |
| Less: Constructive gain recorded** | 575 | | | |
| Space Invaders contribution to | | | | |
| consolidated income | 189,425 | | | |
| | × 0.70 | 132,598 | 132,598 | 132,598 |
| Controlling interest in consolidated net income | | $371,708 | $371,708 | $371,708 |
| | | | | |
| Noncontrolling interest in consolidated income | | | | |
| ($189,425 × .30) | | $56,828 | $56,828 | $56,828 |

* discount amortized ($677+711)
** discount amortized (281+294)

## Exercise 9-13

### December 31, 2010

| | Cost and Partial Equity | | Complete Equity | |
|---|---|---|---|---|
| Loss on Constructive Retirement of Bonds | 5,170 | | 5,170 | |
| Discount on Bonds Payable | | 5,170 | | 5,170 |
| | | | | |
| Investment in Pacman Company Bonds | 2,638 | | 2,638 | |
| Gain on Constructive Retirement of Bonds | | 2,638 | | 2,638 |
| | | | | |
| Bonds Payable | 80,000 | | 80,000 | |
| Investment in Pacman Company Bonds | | 80,000 | | 80,000 |

### December 31, 2011

| | Cost and Partial Equity | | Complete Equity | |
|---|---|---|---|---|
| Beginning Retained Earnings - Pacman Company | 5,170 | | | |
| Discount on Bonds Payable | | 5,170 | | |
| | | | | |
| Investment in Space Invaders | | | 5,170 | |
| Discount on Bonds Payable | | | | 5,170 |
| | | | | |
| Discount on Bonds Payable | 1,110 | | 1,110 | |
| Interest Expense (($677 + $711) × .80) | | 1,110 | | 1,110 |
| | | | | |
| Beginning Retained Earnings – Pacman (70%) | 1,847 | | | |
| Noncontrolling Interest (30%) | 791 | | | |
| Investment in Pacman Company Bonds | | 2,638 | | |
| | | | | |
| Investment in Space Invaders (70%) | | | 1,847 | |
| Noncontrolling Interest (30%) | | | 791 | |
| Investment in Pacman Company Bonds | | | | 2,638 |
| | | | | |
| Investment in Pacman Company Bonds | 575 | | 575 | |
| Interest Income ($281 + $294) | | 575 | | 575 |
| | | | | |
| Interest Income (intercompany interest) | 6,400 | | 6,400 | |
| Interest Expense | | 6,400 | | 6,400 |
| Nominal interest of $8,000 × 0.80 = $6,400 | | | | |
| | | | | |
| Bonds Payable | 80,000 | | 80,000 | |
| Investment in Pacman Company | | 80,000 | | 80,000 |

**December 31, 2012**

| | Cost and Partial Equity | | Complete Equity | |
|---|---|---|---|---|
| Beginning Retained Earnings - Pacman | 5,170 | | | |
| Discount on Bonds Payable | | 5,170 | | |
| | | | | |
| Discount on Bonds Payable | 2,333 | | | |
| Beginning Retained Earnings - Pacman | | 1,110 | | |
| Interest Expense ((746 + 783) × 0.80) | | 1,223 | | |
| | | | | |
| Investment in Space Invaders | | | 5,170 | |
| Discount on Bonds Payable | | | | 5,170 |
| | | | | |
| Discount on Bonds Payable | | | 2,333 | |
| Investment in Space Invaders | | | | 1,110 |
| Interest Expense ((746 + 783) × 0.80) | | | | 1,223 |
| | | | | |
| Investment in Pacman Company Bonds | 2,638 | | | |
| Beginning Retained Earnings – Pacman (70%) | | 1,847 | | |
| Noncontrolling Interest (30%) | | 791 | | |
| | | | | |
| Beginning Retained Earnings - Pacman | 402.5 | | | |
| Noncontrolling Interest | 172.5 | | | |
| Interest Income ($307 + $321) | 628.0 | | | |
| Investment in Pacman Company Bonds | | 1,203 | | |
| | | | | |
| Investment in Pacman Company Bonds | | | 2,638 | |
| Beginning Retained Earnings – Pacman (70%) | | | | 1,847 |
| Noncontrolling Interest (30%) | | | | 791 |
| | | | | |
| Beginning Retained Earnings - Pacman | | | 402.5 | |
| Noncontrolling Interest | | | 172.5 | |
| Interest Income ($307 + $321) | | | 628.0 | |
| Investment in Pacman Company Bonds | | | | 1,203 |
| | | | | |
| Interest Income | 6,400 | | 6,400 | |
| Interest Expense | | 6,400 | | 6,400 |
| Nominal interest of $8,000 × 0.80 = $6,400 | | | | |
| | | | | |
| Bonds Payable | 80,000 | | 80,000 | |
| Investment in Pacman Company | | 80,000 | | 80,000 |

## SOLUTIONS TO PROBLEMS

### Problem 9-1

| | | Case | |
|---|---|---|---|
| | | 1 | 2 |
| **Part A** | Issue price | $512,000 | $488,000 |
| | Amortization – 2006 to 2009 ($12,000/10) × 3 | 3,600 | 3,600 |
| | Carrying value - 1/1/2005 | 508,400 | 491,600 |
| | Purchase price | 514,000 | 486,000 |
| | Total constructive gain (loss) | $ (5,600) | $ 5,600 |
| | | | |
| | Pace Corporation | | |
| | Carrying value - 1/1/2009 | $508,400 | $491,600 |
| | Par value | 500,000 | 500,000 |
| | Constructive gain (loss) | $ 8,400 | $ (8,400) |
| | | | |
| | Supra Corporation | | |
| | Purchase price | $514,000 | $486,000 |
| | Par value | 500,000 | 500,000 |
| | Constructive gain (loss) | $ (14,000) | $ 14,000 |

| | | | |
|---|---|---|---|
| **Part B** | Pace Corporation | | |
| Case 1 | Interest Expense ($500,000 × .15 × (6/12)) | 37,500 | |
| | Cash | | 37,500 |
| | | | |
| | Premium on Bonds Payable ($12,000/20) | 600 | |
| | Interest Expense | | 600 |
| | | | |
| Case 2 | Interest Expense | 37,500 | |
| | Cash | | 37,500 |
| | | | |
| | Interest Expense | 600 | |
| | Discount on Bonds Payable ($12,000/20) | | 600 |
| | | | |
| | Supra Corporation | | |
| Case 1 | Cash | 37,500 | |
| | Interest Income ($500,000 × .15 × 6/12) | | 37,500 |
| | | | |
| | Interest Income | 1,000 | |
| | Investment in Pace Corp. Bonds ($14,000/14) | | 1,000 |
| | | | |
| Case 2 | Cash | 37,500 | |
| | Interest Income | | 37,500 |
| | | | |
| | Investment in Pace Corp. Bonds ($14,000/14) | 1,000 | |
| | Interest Income | | 1,000 |

**Problem 9-1 (continued)**

**Part C**

| | Issue Price | |
|---|---|---|
| Pace Corporation | $512,000 | $488,000 |
| Bonds Payable | $500,000 | $500,000 |
| Unamortized Premium (discount) – after 4 years ($12,000 – ($1,200 x 4) | 7,200 | (7,200) |
| Carrying Value of Bonds | $507,200 | $492,800 |
| | | |
| Cash Payment for Interest - 2009 | $75,000 | $75,000 |
| (Premium) Discount Amortization (per year) | (1,200) | 1,200 |
| Bond Interest Expense - 2009 | $73,800 | $76,200 |
| | | |
| Increase (decrease) in Net Income from Amortization | $1,200 | $(1,200) |

| | Purchase Price | |
|---|---|---|
| Supra Corporation | $514,000 | $486,000 |
| Investment in Pace Corp. Bonds | $512,000 | $488,000 |
| | | |
| Cash Receipts for Interest - 2009 | $75,000 | $75,000 |
| (Premium) Discount Amortization ($14,000/7) | (2,000) | 2,000 |
| Bond Interest Income - 2009 | $73,000 | $77,000 |
| | | |
| Increase (decrease) in Net Income from Amortization | $(2,000) | $2,000 |

| | Case | | | |
|---|---|---|---|---|
| | 1 | 2 | 3 | 4 |
| Amount of constructive gain (loss) recognized by Pace Corporation | $1,200 | $(1,200) | $1,200 | $(1,200) |
| Amount of constructive gain (loss) recognized by Supra Corporation | (2,000) | 2,000 | 2,000 | (2,000) |

**Part D**

| | | | |
|---|---|---|---|
| Case 1 | Premium on Bonds Payable | 8,400 | |
| | Gain on Constructive Retirement of Debt | | 8,400 |
| | | | |
| | Interest Expense | 1,200 | |
| | Premium on Bonds Payable | | 1,200 |
| | | | |
| | Loss on Constructive Retirement of Debt | 14,000 | |
| | Investment in Pace Corporation Bonds | | 14,000 |
| | | | |
| | Investment in Pace Corporation Bonds | 2,000 | |
| | Interest Income | | 2,000 |
| | | | |
| | Interest Income | 75,000 | |
| | Interest Expense | | 75,000 |
| | | | |
| | Bonds Payable | 500,000 | |

| | | | |
|---|---|---|---|
| | Investment in Pace Corporation Bonds | | 500,000 |

**Problem 9-1 (continued)**

| | | | |
|---|---|---|---|
| Case 2 | Loss on Constructive Retirement of Debt | 8,400 | |
| | Discount on Bonds Payable | | 8,400 |
| | Discount on Bonds Payable | 1,200 | |
| | Interest Expense | | 1,200 |
| | Investment in Pace Corp. Bonds | 14,000 | |
| | Gain on Constructive Retirement of Debt | | 14,000 |
| | Interest Income | 2,000 | |
| | Investment in Pace Corp. Bonds | | 2,000 |
| | Interest Income | 75,000 | |
| | Interest Expense | | 75,000 |
| | Bonds Payable | 500,000 | |
| | Investment in Pace Corporation Bonds | | 500,000 |

**Problem 9-2**

**Part A** Prezo Company

| | |
|---|---|
| Purchase price of bonds | $225,000 |
| Par value of bonds ($400,000 × .60) | 240,000 |
| Constructive gain | $ 15,000 |

Satz Company

Premium amortization per period:

| | |
|---|---|
| Premium balance 12/31/2009 | $9,000 |
| Number of interest periods to maturity | 6 |
| Amortization per period | $1,500 |

| | |
|---|---|
| Bonds Payable | $400,000 |
| Unamortized premium ($9,000 + $1,500) | 10,500 |
| Carrying value - 7/1/2009 | 410,500 |
| | × .60 |
| Carrying value of bonds retired | 246,300 |
| Par value | 240,000 |
| Constructive gain | $ 6,300 |

**Problem 9-2 (continued)**

**Part B**

PREZO COMPANY AND SUBSIDIARY
Consolidated Statements Workpaper
For the Year Ended December 31, 2009

| | Prezo Company | Salz Company | Eliminations Dr. | Eliminations Cr. | Noncontrolling Interest | Consolidated Balances |
|---|---|---|---|---|---|---|
| **Income Statement** | | | | | | |
| Sales | 2,680,000 | 1,860,000 | | | | 4,540,000 |
| Dividend Income | 120,000 | | (7) 120,000 | | | |
| Other Income | 266,000 | 120,000 | (2) 2,143 | | | |
| | | | (5) 12,000 | | | 371,857 |
| Gain on Constructive | | | | (1) 15,000 | | |
| Retirement of Bonds | | | | (3) 6,300 | | 21,300 |
| Total Revenue | 3,066,000 | 1,980,000 | | | | 4,933,157 |
| Expenses | 2,678,000 | 1,580,000 | (4) 900 | (5) 12,000 | | 4,246,900 |
| Net/Consolidated Income | 388,000 | 400,000 | | | | 686,257 |
| Noncontrolling Interest in Consolidated Income ($400,000 + $6,300 - $900) × .20 | | | | | 81,080 | (81,080) |
| Net Income to Retained Earnings | 388,000 | 400,000 | 135,043 | 33,300 | 81,080 | 605,177 |
| | | | | | | |
| **Retained Earnings Statement** | | | | | | |
| 1/1 Retained Earnings: | | | | | | |
| Prezo Company | 480,000 | | | | | 480,000 |
| Satz Company | | 300,000 | (8) 300,000 | | | |
| Net Income from above | 388,000 | 400,000 | 135,043 | 33,300 | 81,080 | 605,177 |
| Dividends Declared: | | | | | | |
| Prezo Company | (250,000) | | | | | (250,000) |
| Satz Company | | (150,000) | | (7) 120,000 | (30,000) | |
| 12/31 Retained Earnings to Balance Sheet | 618,000 | 550,000 | 435,043 | 153,300 | 51,080 | 835,177 |

| **Problem 9-2 (continued)** | Prezo | Salz | Eliminations | | Noncontrolling | Consolidated |
|---|---|---|---|---|---|---|
| | Company | Company | Dr. | Cr. | Interest | Balances |
| **Balance Sheet** | | | | | | |
| Current Assets | 920,000 | 580,000 | | | | 1,500,000 |
| Investment in Satz Company Common Stock | 880,000 | | | (8) 880,000 | | |
| Investment in Satz Co. Bonds | 227,143 | | (1) 15,000 | (2) 2,143 | | |
| | | | | (6) 240,000 | | |
| Other Assets | 2,345,457 | 1,320,000 | | | | 3,665,457 |
| Total Assets | 4,372,600 | 1,900,000 | | | | 5,165,457 |
| Bonds Payable | 700,000 | 400,000 | (6) 240,000 | | | 860,000 |
| Premium on Bonds Payable | 20,000 | 9,000 | (3) 6,300 | (4) 900 | | 23,600 |
| Other Liabilities | 1,434,600 | 141,000 | | | | 1,575,600 |
| Common Stock | | | | | | |
| Prezo Company | 1,600,000 | | | | | 1,600,000 |
| Satz Company | | 800,000 | (8) 800,000 | | | |
| Retained Earnings from above | 618,000 | 550,000 | 435,043 | 153,300 | 51,080 | 835,177 |
| Noncontrolling Interest in Net Assets | | | | (8) 220,000 | 220,000 | |
| | | | | | 271,080 | 271,080 |
| Total Liabilities and Equity | 4,372,600 | 1,900,000 | 1,496,343 | 1,496,343 | | 5,165,457 |

**Problem 9-2 (continued)**

Explanations of workpaper entries

| | | |
|---|---|---|
| (1) Investment in Satz Company Bonds | 15,000 | |
| Constructive Gain on Bond Retirement | | 15,000 |
| To recognize constructive gain and adjust the bond investment to par value | | |
| | | |
| (2) Interest Income ($15,000 gain/7 periods) | 2,143 | |
| Investment in Satz Company Bonds | | 2,143 |
| To adjust interest income for the gain recorded this period | | |
| | | |
| (3) Premium on Bonds Payable | 6,300 | |
| Constructive Gain on Bond Retirement | | 6,300 |
| To recognize constructive gain and adjust the intercompany bonds to par value | | |
| | | |
| (4) Interest Expense ($6,300 gain/7 periods = $900) | 900 | |
| Premium on Bonds Payable | | 900 |
| To adjust interest expense for the gain recorded this period | | |
| | | |
| (5) Interest Income ($240,000 × .10 × (6/12)) | 12,000 | |
| Interest Expense | | 12,000 |
| To eliminate intercompany interest. | | |
| | | |
| (6) Bonds Payable | 240,000 | |
| Investment in Satz Company Bonds | | 240,000 |
| To eliminate intercompany bond investment and liability | | |
| | | |
| (7) Dividend Income | 120,000 | |
| Dividends Declared | | 120,000 |
| To eliminate intercompany dividends | | |
| | | |
| (8) Beginning Retained Earnings – Satz | 300,000 | |
| Common Stock – Satz | 800,000 | |
| Investment in Satz Company Common Stock | | 880,000 |
| Noncontrolling interest | | 220,000 |
| To eliminate investment account and create noncontrolling interest account | | |

**Part C**

| | | |
|---|---|---|
| Income of Prezo from independent operations ($388,000 - $120,000) | | $268,000 |
| Add: Constructive gain on bond retirement | | 15,000 |
| Less: Portion of constructive gain recorded this period ($15,000/7) | | (2,143) |
| Prezo's contribution to combined income | | 280,857 |
| Reported net income of Satz | $400,000 | |
| Add: Constructive gain on bond retirement | 6,300 | |
| Less: Portion of constructive gain recorded this period | (900) | |
| Satz's contribution to consolidated income | 405,400 | |
| Prezo’s percentage | × .80 | 324,320 |
| Controlling interest in consolidated net income | | $605,177 |

**Problem 9-3**

PASTA COMPANY AND SUBSIDIARY
Consolidated Statement Workpaper
For the Year Ended December 31, 2011

**Part A**

| | Pasta Company | Salsa Company | Eliminations Dr. | Eliminations Cr. | Noncontrolling Interest | Consolidated Balances |
|---|---|---|---|---|---|---|
| **Income Statement** | | | | | | |
| Sales | 370,000 | 200,000 | | | | 570,000 |
| Other Revenues | 15,000 | 2,000 | | | | 17,000 |
| Total Revenue | 385,000 | 202,000 | | | | 587,000 |
| Cost of Goods Sold | 180,000 | 110,000 | | | | 290,000 |
| Other Expenses | 80,000 | 30,000 | | | | 110,000 |
| Gain or Loss on Constructive Retirement of Bonds | | | (3) 1,500 | (2) 6,000 | | (4,500) |
| Total Cost & Expense | 260,000 | 140,000 | | | | 395,500 |
| Net/Consolidated Income | 125,000 | 62,000 | | | | 191,500 |
| Noncontrolling Interest in Consolidated Income* | | | | | 12,100 | (12,100) |
| Net Income to Retained Earnings | 125,000 | 62,000 | 1,500 | 6,000 | 12,100 | 179,400 |

*($62,000 - $1,500) × .20 = $12,100

| | Pasta Company | Salsa Company | Eliminations Dr. | Eliminations Cr. | Noncontrolling Interest | Consolidated Balances |
|---|---|---|---|---|---|---|
| **Retained Earnings Statement** | | | | | | |
| 1/1 Retained Earnings: | | | | | | |
| Pasta Company | 96,000 | | | | | 96,000 |
| Salsa Company | | 85,000 | (5) 85,000 | | | |
| Net Income from above | 125,000 | 62,000 | 1,500 | 6,000 | 12,100 | 179,400 |
| Dividends Declared: | | | | | | |
| Pasta Company | (30,000) | | | | | (30,000) |
| Salsa Company - Stock | | (30,000) | | (1) 24,000 | (6,000) | |
| 12/31 Retained Earnings to Balance Sheet | 191,000 | 117,000 | 86,500 | 30,000 | 6,100 | 245,400 |

| **Problem 9-3 (continued)** | Pasta Company | Salsa Company | Eliminations Dr. | Eliminations Cr. | Noncontrolling Interest | Consolidated Balances |
|---|---|---|---|---|---|---|
| **Balance Sheet** | | | | | | |
| Current Assets | 171,000 | 169,000 | | | | 340,000 |
| Investment in Salsa Company Stock | 148,000 | | | (5) 148,000 | | |
| Investment in Salsa Company Bonds | 94,000 | | (2) 6,000 | (4) 100,000 | | |
| Other Assets | 300,000 | 315,000 | | | | 615,000 |
| Total Assets | 713,000 | 484,000 | | | | 955,000 |
| Accounts Payable | 72,000 | 40,000 | | | | 112,000 |
| Long-Term Bonds Payable | 250,000 | 200,000 | (4) 100,000 | | | 350,000 |
| Discount on Bonds Payable | | (3,000) | | (3) 1,500 | | (1,500) |
| Common Stock: | | | | | | |
| Pasta Company | 200,000 | | | | | 200,000 |
| Salsa Company | | 130,000 | (1) 30,000<br>(5) 100,000 | | | |
| Retained Earnings from above | 191,000 | 117,000 | 86,500 | 30,000 | 6,100 | 245,400 |
| 1/1 Noncontrolling Interest in Net Assets* | | | | (5) 37,000<br>(1) 6,000 | 43,000 | |
| 12/31 Noncontrolling Interest in Net Assets | | | | | 49,100 | 49,100 |
| Total Liabilities and Equity | 713,000 | 484,000 | 322,500 | 322,500 | | 955,000 |

No entry is necessary to establish reciprocity since there was a liquidating dividend last year

(1) To reverse the effects of the stock dividend.
(2) To recognize the constructive loss not recorded by Pasta Company and adjust the bond investment to par value.
(3) To recognize the constructive gain not recorded by Salsa Company and adjust the intercompany bonds payable to par value.
(4) To eliminate the intercompany bond investment and liability.
(5) To eliminate the investment account and create noncontrolling interest account.

* $38,000 + ($85,000 – $90,000) x .20 = $37,000

**Problem 9-3 (continued)**

| | |
|---|---|
| Pasta Company | |
| Cost of bond investment | $ 94,000 |
| Par value of bonds purchased | 100,000 |
| Constructive gain | $ 6,000 |

| | |
|---|---|
| Salsa Company | |
| Carrying value of bonds | $197,000 |
| Percent purchased ($100,000/$200,000) | .50 |
| Carrying value of bonds purchased | 98,500 |
| Par value of bonds purchased | 100,000 |
| Constructive loss | $ 1,500 |

| | | | |
|---|---|---|---|
| **Part B** | Investment in Salsa Company Stock | 49,600 | |
| | Beginning Retained Earnings - Pasta Company | | 49,600 |
| | $62,000 × .80 = $49,600 | | |

| | | |
|---|---|---|
| Retained earnings - 1/1/2012 | | $117,000 |
| Retained earnings - date of acquisition | $90,000 | |
| Less: Liquidating dividend - 2010 | (5,000) | |
| Stock dividend - 2011 | (30,000) | 55,000 |
| Undistributed net income | | $62,000 |

**Problem 9-4**

| | | | |
|---|---|---|---|
| **Part A** | Investment in South Company Stock | 160,000 | |
| | Equity in Subsidiary Income | | 160,000 |
| | Cash ($100,000 × .80) | 80,000 | |
| | Investment in South Company Stock | | 80,000 |
| | Investment in South Company Bonds | 315,000 | |
| | Cash | | 315,000 |
| | Cash ($300,000 × .10 × (6/12)) | 15,000 | |
| | Interest Income | | 15,000 |
| | Interest Income ($15,000/5 periods) | 3,000 | |
| | Investment in South Company Bonds | | 3,000 |

**Problem 9-4 (continued)**

Supporting Computation

*Prince Company*

| | |
|---|---|
| Cost of bond investment | $315,000 |
| Par value of bonds purchased | 300,000 |
| Constructive loss | $ 15,000 |

*South Company*

| | |
|---|---|
| Premium on bonds payable | $ 40,000 |
| Amortization periods remaining as of December 31, 2011 | 4 |
| Amortization per period | $ 10,000 |

| | |
|---|---|
| Carrying value July 1, 2011: | |
| Bonds payable | $500,000 |
| Premium on bonds payable ($40,000 + $10,000) | 50,000 |
| Carrying value - July 1, 2011 | 550,000 |
| Percentage of bonds purchased | .60 |
| Carrying value of bonds purchased | 330,000 |
| Par value of bonds purchased | 300,000 |
| Constructive gain | $ 30,000 |

**Problem 9-4 (continued)**

**Part B**

PRINCE COMPANY AND SUBSIDIARY
Consolidated Statements Workpaper
For the Year Ended December 31, 2011

| | Prince Company | South Company | Eliminations Dr. | Eliminations Cr. | Noncontrolling Interest | Consolidated Balances |
|---|---|---|---|---|---|---|
| **Income Statement** | | | | | | |
| Sales | 3,000,000 | 2,000,000 | | | | 5,000,000 |
| Equity in Subsidiary Income | 160,000 | | (1) 160,000 | | | |
| Other Income | 100,000 | 200,000 | (6) 15,000 | (3) 3,000 | | 288,000 |
| Total Revenue | 3,260,000 | 2,200,000 | | | | 5,288,000 |
| Expenses | 2,800,000 | 2,000,000 | (5) 6,000 | (6) 15,000 | | (4,791,000) |
| Gain or Loss on Constructive Retirement of Bonds | | | (2) 15,000 | (4) 30,000 | | 15,000 |
| Net/Consolidated Income | 460,000 | 200,000 | | | | 512,000 |
| Noncontrolling Interest | | | | | | |
| (($200,000 + $30,000 - $6,000) × .20) | | | | | 44,800 | (44,800) |
| Net Income to Retained Earnings | 460,000 | 200,000 | 196,000 | 48,000 | 44,800 | 467,200 |
| | | | | | | |
| **Retained Earnings Statement** | | | | | | |
| 1/1 Retained Earnings: | | | | | | |
| Prince Company | 600,000 | | | | | 600,000 |
| South Company | | 300,000 | (8) 300,000 | | | |
| Net Income from above | 460,000 | 200,000 | 196,000 | 48,000 | 44,800 | 467,200 |
| Dividends Declared: | | | | | | |
| Prince Company | (250,000) | | | | | (250,000) |
| South Company | | (100,000) | | (1) 80,000 | (20,000) | |
| 12/31 Retained Earnings to Balance Sheet | 810,000 | 400,000 | 496,000 | 128,000 | 24,800 | 817,200 |

| **Problem 9-4 (continued)** | Prince Company | South Company | Eliminations Dr. | Eliminations Cr. | Noncontrolling Interest | Consolidated Balances |
|---|---|---|---|---|---|---|
| **Balance Sheet** | | | | | | |
| Current Assets | 826,000 | 700,000 | | | | 1,526,000 |
| Investment in South Company Common Stock | 1,120,000 | | | (1) 80,000 | | |
| | | | | (8) 1,040,000 | | |
| Investment in South Company Bonds | 312,000 | | (3) 3,000 | (2) 15,000 | | |
| | | | | (7) 300,000 | | |
| Other Assets | 1,252,000 | 1,400,000 | | | | 2,652,000 |
| Total Assets | 3,510,000 | 2,100,000 | | | | 4,178,000 |
| | | | | | | |
| Bonds Payable | 300,000 | 500,000 | (7) 300,000 | | | 500,000 |
| Premium on Bonds Payable | 20,000 | 40,000 | (4) 30,000 | (5) 6,000 | | 36,000 |
| Other Liabilities | 380,000 | 160,000 | | | | 540,000 |
| Capital Stock | | | | | | |
| Prince Company | 2,000,000 | | | | | 2,000,000 |
| South Company | | 1,000,000 | (8) 1,000,000 | | | |
| Retained Earnings from above | 810,000 | 400,000 | 496,000 | 128,000 | 24,800 | 817,200 |
| 1/1 Noncontrolling Interest in Net Assets | | | | (8) 260,000 | 260,000 | |
| 12/31 Noncontrolling Interest in Net Assets | | | | | 284,800 | 284,800 |
| Total Liabilities and Equity | 3,510,000 | 2,100,000 | 1,829,000 | 1,829,000 | | 4,178,000 |

Explanations for workpaper eliminating entries are on the following page.

**Problem 9-4 (continued)**

Explanations of workpaper entries

| | | | |
|---|---|---|---|
| (1) | Equity in Subsidiary Income | 160,000 | |
| | Dividends Declared ($100,000 × .80) | | 80,000 |
| | Investment in South Company | | 80,000 |

To reverse the effect of parent company entries during the year for subsidairy dividend and income.

| | | | |
|---|---|---|---|
| (2) | Gain (Loss) on Constructive Retirement of Bond | 15,000 | |
| | Investment in South Company -Bonds | | 15,000 |

To recognize constructive loss and adjust bond investment to par value.

| | | | |
|---|---|---|---|
| (3) | Investment in South Company -Bonds | 3,000 | |
| | Other Income (Interest) | | 3,000 |

To adjust interest income for loss recorded.

| | | | |
|---|---|---|---|
| (4) | Premium on Bond Payable | 30,000 | |
| | Gain (Loss) on Constructive Retirement of Bonds | | 30,000 |

To recognize constructive gain and adjust intercompany bonds to par value.

| | | | |
|---|---|---|---|
| (5) | Expenses (Interest) | 6,000 | |
| | Premium on Bond Payable | | 6,000 |

To adjust interest expense for gain recorded.

| | | | |
|---|---|---|---|
| (6) | Other Income (Interest) | 15,000 | |
| | Expenses (Interest) | | 15,000 |

To eliminate the intercompany interest.

| | | | |
|---|---|---|---|
| (7) | Bonds Payable | 300,000 | |
| | Investment in South Company -Bonds | | 300,000 |

To eliminate the intercompany bond investment and liability.

| | | | |
|---|---|---|---|
| (8) | 1/1 Retained Earnings – South Company | 300,000 | |
| | Common Stock – South Company | 1,000,000 | |
| | Investment in South Company – Common Stock | | 1,040,000 |
| | Noncontrolling interest [$250,000 + ($300,000 – $250,000) x 0.2 | | 260,000 |

To eliminate the investment account and create noncontrolling interest account.

**Problem 9-5**

PABST COMPANY AND SUBSIDIARY
Consolidated Statements Workpaper
For the Year Ended December 31, 2011

| | Pabst | Secor | Eliminations | | Noncontrolling | Consolidated |
|---|---|---|---|---|---|---|
| | Company | Company | Dr. | Cr. | Interest | Balances |
| **Income Statement** | | | | | | |
| Sales | 700,000 | 450,000 | | | | 1,150,000 |
| Expenses | (580,000) | (350,000) | | | | (930,000) |
| Net Income | 120,000 | 100,000 | | | | 220,000 |
| Preferred Stock ($40,000[1] × .7) | | | | | 28,000 | |
| Common Stock ($60,000[2] × .2) | | | | | 12,000 | (40,000) |
| Net Income to Retained Earnings | 120,000 | 100,000 | | | 40,000 | 180,000 |

(1) $400,000 × .10; (2) $100,000 - $40,000

| | Pabst Company | Secor Company | Dr. | Cr. | Noncontrolling Interest | Consolidated Balances |
|---|---|---|---|---|---|---|
| **Retained Earnings Statement** | | | | | | |
| 1/1 Retained Earnings: | | | | | | |
| Pabst Company | 507,000 | | | (1) 140,000 | | 647,000 |
| Secor Company | | | | | | |
| Preferred Stock | | 56,000* | (2) 56,000 | | | |
| Common Stock | | 374,000 | (3) 374,000 | | | |
| Net Income from above | 120,000 | 100,000 | | | 40,000 | 180,000 |
| Dividends Declared | (100,000) | | | | | (100,000) |
| 12/31 Retained Earnings to Balance Sheet | 527,000 | 530,000 | 430,000 | 140,000 | 40,000 | 727,000 |

*Dividends in arrears + call premium = ($400,000 × .10 × 1 year) + ($4 × 4,000 shares) = $40,000 + $16,000 = $56,000

**Problem 9-5 (continued)**

| | Pabst Company | Secor Company | Eliminations Dr. | Eliminations Cr. | Noncontrolling Interest | Consolidated Balances |
|---|---|---|---|---|---|---|
| **Balance Sheet** | | | | | | |
| Current Assets | 1,618,000 | 890,000 | | | | 2,508,000 |
| Investment - Common Stock | 680,000 | | (1) 128,000 | (3) 808,000 | | |
| Preferred Stock | 135,000 | | (1) 12,000 | (2) 147,000 | | |
| Other Assets | 1,025,000 | 1,000,000 | (3) 36,000 | | | 2,061,000 |
| | 3,458,000 | 1,890,000 | | | | 4,569,000 |
| Liabilities | 931,000 | 360,000 | | | | 1,291,000 |
| Preferred Stock | | | | | | |
| Pabst Company | 400,000 | | | | | 400,000 |
| Secor Company | | 400,000 | (2) 400,000 | | | |
| Common Stock | | | | | | |
| Pabst Company | 1,000,000 | | | | | 1,000,000 |
| Secor Company | | 500,000 | (3) 500,000 | | | |
| Other Contributed Capital | | | | | | |
| Pabst Company | 600,000 | | (2) 34,000 | | | 566,000 |
| Secor Company | | 100,000 | (3) 100,000 | | | |
| Retained Earnings from above | 527,000 | 530,000 | 430,000 | 140,000 | 40,000 | 727,000 |
| 1/1 Noncontrolling Interest in Net Assets | | | | (2) 343,000 | 343,000 | |
| | | | | (3) 202,000 | 202,000 | |
| 12/31 Noncontrolling Interest in Net Assets | | | | | 585,000 | 585,000 |
| | 3,458,000 | 1,890,000 | 1,640,000 | 1,640,000 | | 4,569,000 |

(1) To establish reciprocity. $40,000 × .3 = $12,000; ($374,000 – ($230,000 – $16,000)) × .80 = $128,000

(2) To eliminate the investment preferred stock account and create noncontrolling interest account.

(3) To eliminate the investment common stock account and create noncontrolling interest account.
Computation to verify difference between implied and book value.

| | | | | | | |
|---|---|---|---|---|---|---|
| Total stockholders' equity - date of purchase | | $1,230,000 | | | | |
| Preferred stock | $400,000 | | | | | |
| Retained earnings ($4 per share × 4,000 shares) | 16,000 | | | | | |
| Book value interest of preferred stock | | 416,000 | = | $416,000 – $450,000 | = | $34,000 |
| Book value interest of common stock | | $814,000 | = | $814,000 – $850,000 | = | $36,000 |

## Problem 9-6

### Part A

Computation and Allocation of Difference between Implied and Book Value Acquired (Common Stock)

| | Parent Share | Non-Controlling Share | Entire Value |
|---|---|---|---|
| Purchase price and implied value | **$600,000** | **66,667** | 666,667 |
| Less: Book value of equity acquired | | | |
| Common Stock | (360,000) | (40,000) | (**400,000)** |
| Retained Earnings* | (144,000) | (16,000) | **(160,000)** |
| Difference between implied and book value | 96,000 | 10,667 | **106,667** |
| Allocated to land (other assets) | (96,000) | (10,667) | **(106,667)** |
| Balance | - 0 - | - 0 - | - 0 – |

Computation and Allocation of Difference between Implied and Book Value Acquired (Preferred Stock)

| | Parent Share | Non-Controlling Share | Entire Value |
|---|---|---|---|
| Purchase price and implied value | **$60,000** | **90,000** | 150,000 |
| Less: Book value of equity acquired | | | |
| Preferred Stock | (40,000) | (60,000) | (**100,000)** |
| Retained Earnings | (16,000) | (24,000) | **(40,000)** |
| Difference between implied and book value | 4,000 | 6,000 | **10,000** |

*Based on ratio of capital balances since there are no preferred dividends in arrears.

Preferred stock $\frac{\$100{,}000}{\$500{,}000} \times \$200{,}000 = \$40{,}000$

Common stock $\frac{\$400{,}000}{\$500{,}000} \times \$200{,}000 = \$160{,}000$

**Problem 9-6 (continued)**

**Part B**

PAL CORPORATION AND SUBSIDIARY
Consolidated Statements Workpaper
For the Year Ended December 31, 2011

| | PAL | Saltz | Eliminations | | Noncontrolling | Consolidated |
|---|---|---|---|---|---|---|
| | Corporation | Inc. | Dr. | Cr. | Interest | Balances |
| **Income Statement** | | | | | | |
| Sales | 890,000 | 750,000 | | | | 1,640,000 |
| Other Revenues | 91,000 | 50,000 | (2) 68,000 | | | 73,000 |
| Total Revenue | 981,000 | 800,000 | | | | 1,713,000 |
| Cost of Goods Sold | 500,000 | 400,000 | | | | 900,000 |
| Other Expenses | 330,000 | 280,000 | | | | 610,000 |
| Net/Consolidated Income | 151,000 | 120,000 | | | | 203,000 |
| Noncontrolling Interest in Consolidated Income | | | | | | |
| Preferred Stock ($24,000* × .60) | | | | | 14,400 | |
| Common Stock ($96,000 × .10) | | | | | 9,600 | (24,000) |
| Net Income to Retained Earnings | 151,000 | 120,000 | 68,000 | | 24,000 | 179,000 |
| * ($100/$500 × $120,000) | | | | | | |
| **Retained Earnings Statement** | | | | | | |
| 1/1 Retained Earnings: | | | | | | |
| PAL Corporation | 560,000 | | (3) 10,000 | (1) 100,000 | | 650,000 |
| Saltz, Inc. | | | | | | |
| Preferred Stock | | 74,000 | (3) 74,000 | | | |
| Common Stock | | 256,000 | (4) 256,000 | | | |
| Net Income from above | 151,000 | 120,000 | 68,000 | | 24,000 | 179,000 |
| Dividends Declared | | | | | | |
| Preferred Stock | | (26,000) | | (2) 10,400 | (15,600) | |
| Common Stock | | (64,000) | | (2) 57,600 | (6,400) | |
| 12/31 Retained Earnings to Balance Sheet | 711,000 | 360,000 | 408,000 | 168,000 | 2,000 | 829,000 |

**Problem 9-6 (continued)**

| | PAL Corporation | Saltz Inc. | Eliminations Dr. | Eliminations Cr. | Noncontrolling Interest | Consolidated Balances |
|---|---|---|---|---|---|---|
| **Balance Sheet** | | | | | | |
| Current Assets | 810,000 | 380,000 | | | | 1,190,000 |
| Investment in Saltz, Inc. | | | | | | |
| Common Stock | 600,000 | | (1) 86,400 | (4) 686,400 | | |
| Preferred Stock | 60,000 | | (1) 13,600 | (3) 73,600 | | |
| Other Assets | 1,276,000 | 600,000 | (4) 106,667 | | | 1,982,667 |
| | 2,746,000 | 980,000 | | | | 3,172,667 |
| Liabilities | 1,335,000 | 120,000 | | | | 1,455,000 |
| Preferred Stock | | 100,000 | (3) 100,000 | | | |
| Common Stock - PAL Corporation | 700,000 | | | | | 700,000 |
| Saltz, Inc. | | 400,000 | (4) 400,000 | | | |
| Retained Earnings from above | 711,000 | 360,000 | 408,000 | 168,000 | 2,000 | 829,000 |
| 1/1 Noncontrolling Inerest in Net Assets | | | | (3) 110,400 | 110,400 | |
| | | | | (4) 76,267 | 76,267 | |
| 12/31 Noncontrolling Interest in Net Assets | | | | | 188,667 | 188,667 |
| | 2,746,000 | 980,000 | 1,114,667 | 1,114,667 | | 3,172,667 |

(1) To establish reciprocity $34,000 × .40 = $13,600; $96,000 × .90 = $86,400

(2) To eliminate intercompany dividends $26,000* × .40 = $10,400; $64,000** × .90 = $57,600

(3) To eliminate the preferred stock investment account and create noncontrolling interest account.

(4) To eliminate the common stock investment account and create noncontrolling interest account.

* ($100,000 × .10 × 2) + [($90,000 - $60,000) × ($100/$500) = $26,000; ** ($90,000 - $26,000) = $64,000.

**Problem 9-6 (continued)**

1. Supporting computations for workpaper.
   Allocation of beginning retained earnings

| | | Preferred Stock | | Common Stock | Total |
|---|---|---|---|---|---|
| Dividends in arrears - 1/1/2011 | | $ 10,000 | | $0 | $ 10,000 |
| Participating | (1/5) | 64,000 | (4/5) | 256,000 | 320,000 |
| | | $ 74,000 | | $ 256,000 | $ 330,000 |

2. Computation of dividend allocation – 2011

| | | Preferred Stock | | Common Stock | Total |
|---|---|---|---|---|---|
| Dividends in arrears | | $ 10,000 | | $0 | $ 10,000 |
| Current year's dividend | | 10,000 | | 40,000 | 50,000 |
| Participating dividend | (1/5) | 6,000 | (4/5) | 24,000 | 30,000 |
| | | $ 26,000 | | $ 64,000 | $ 90,000 |

3. Computation of net income allocation – 2010

| | | Preferred Stock | | Common Stock | Total |
|---|---|---|---|---|---|
| Current year's dividend | | $ 10,000 | | $0 | $ 10,000 |
| Participating | (1/5) | 24,000 | (4/5) | 96,000 | 120,000 |
| | | $ 34,000 | | $ 96,000 | $ 130,000 |

4. Computation of net income allocation – 2011

| | | Preferred Stock | | Common Stock | Total |
|---|---|---|---|---|---|
| Current year's dividend | | $ 10,000 | | $ 40,000 | $ 50,000 |
| Participating | (1/5) | 14,000 | (4/5) | 56,000 | 70,000 |
| | | $ 24,000 | | $ 96,000 | $ 120,000 |

**Problem 9-7**

| | | Book Value Interest | |
|---|---|---|---|
| | Account | Preferred | Common |
| **Part A** | Balance | Stock | Stock |
| Preferred stock | $200,000 | $200,000 | $0 |
| Common stock | 500,000 | | 500,000 |
| Retained earnings | 160,000 | 16,000* | 144,000 |
| Total | $860,000 | 216,000 | 644,000 |
| Percentage interest held | | 20% | 80% |
| Book value interest acquired | | $ 43,200 | $ 515,200 |

* (8,000 × $27) - $200,000

**Problem 9-7 (continued)**

**Part B**

Computation and Allocation of Difference between Implied and Book Value Acquired (Common Stock)

| | Parent Share | Non-Controlling Share | Entire Value |
|---|---|---|---|
| Purchase price and implied value | **$650,000** | **162,500** | 812,500 |
| Less: Book value of equity acquired | 515,200 | 128,800 | 644,000 |
| Difference between implied and book value | 134,800 | 33,700 | **168,500** |
| Allocated to Inventory ($150,000 - $120,000) | (24,000) | (6,000) | **(30,000)** |
| Allocated to Equipment ($640,000 - $560,000) | (64,000) | (16,000) | **(80,000)** |
| Balance | 46,800 | 11,700 | 58,500 |
| Goodwill | (46,800) | (11,700) | **(58,500)** |
| Balance | - 0 - | - 0 - | - 0 – |

**Part C**

| | | Preferred Stock | Common Stock | Total |
|---|---|---|---|---|
| 1. | Dividends in arrears ($200,000 × .09) | $ 18,000 | $ 0 | $ 18,000 |
| | Current year | 18,000 | 14,000 | 32,000 |
| | | 36,000 | 14,000 | $50,000 |
| | Percentage interest held | 20% | 80% | |
| | Total dividends received | $7,200 | $11,200 | $ 18,400 |

| | | |
|---|---|---|
| 2. | Reported net income - S Company | $ 100,000 |
| | Less: Depreciation for the period $80,000/5 | (16,000) |
| | Add: Realized profit in beginning inventory ($77,500/1.25)= $62,000; $77,500 - $62,000 = | 15,500 |
| | Less: Unrealized profit in ending inventory ($54,000/1.25) = $43,200; $54,000 - $43,200 = | (10,800) |
| | Realized net income of S Company | 88,700 |
| | Allocation to preferred stockholders | 18,000 |
| | Residual to common stockholders | $ 70,700 |
| | Noncontrolling interest in consolidated income | |
| | Preferred stock $18,000 × .80 = | $ 14,400 |
| | Common stock $70,700 × .20 = | 14,140 |
| | Total | $ 28,540 |

| | | | |
|---|---|---|---|
| 3. | P Company's net income | | $ 234,500 |
| | Dividend income | | (18,400) |
| | P Company's share of realized income of S Company - | | |
| | Preferred stock $18,000 × .20 = | $ 3,600 | |
| | Common stock $70,700 × .80 = | 56,560 | |
| | | | 60,160 |
| | Controlling interest in consolidated net income | | $ 276,260 |

**Problem 9-7 (continued)**

s

|  |  |  |
|---|---|---|
| 4. | Retained earnings - P Company | $ 430,000 |
|  | P Company's share of increase in S Company's retained earnings from date of acquisition: |  |
|  | Preferred stock ($34,000* - $16,000) × .20 = | 3,600 |
|  | Common stock ($276,000 - $144,000) × .80 = | 105,600 |
|  | Unrealized profit on sales to P Company at 1/1/2011 ($15,500 × .80) | (12,400) |
|  | Cumulative effect to 1/1/2011 of amortization of difference between implied and book value: |  |
|  | Inventory ($30,000 x .80) | (24,000) |
|  | Equipment ($16,000 × 2 years) x .80 | (25,600) |
|  | Consolidated retained earnings - 1/1/2011 | $ 477,200 |

* $16,000 + $18,000 = $34,000

## Problem 9-8

### Part A

Computation and Allocation of Difference between Implied and Book Value Acquired

| | Parent Share | Non-Controlling Share | Entire Value |
|---|---|---|---|
| Purchase price and implied value | **$300,000** | **75,000** | 375,000 |
| Less: Book value of equity acquired: | | | |
| Common Stock | 160,000 | 40,000 | **200,000** |
| Other Contributed Capital | 40,000 | 10,000 | **50,000** |
| Retained Earnings | 34,400 | 5,600 | **43,000**[a] |
| Difference between implied and book value | 65,600 | 16,400 | **82,000** |
| Equipment | (10,000) | (2,500) | **(12,500)** |
| Inventories | (5,000) | (1,250) | **(6,250)** |
| Land | (5,000) | (1,250) | **(6,250)** |
| Balance | 45,600 | 11,400 | 57,000 |
| Goodwill | (45,600) | (11,400) | **(57,000)** |
| Balance | - 0 - | - 0 - | - 0 – |

[a] Allocation of retained earnings:

| | | |
|---|---|---|
| Retained earnings balance, date of purchase | | $62,000 |
| Allocation of preferred stock | | |
| Call premium | $4,000 | |
| Dividends in arrears | 15,000 | 19,000 |
| Allocation to common stock | | $43,000 |

**Problem 9-8 (continued)**

**Part B**

PARSON INDUSTRIES AND SUBSIDIARY
Consolidated Statements Workpaper
For the Year Ended December 31, 2017

| | Parson | Succo | Eliminations | | Noncontrolling | Consolidated |
|---|---|---|---|---|---|---|
| Income Statement | Industries | Company | Dr. | Cr. | Interest | Balances |
| Sales | 404,000 | 300,000 | (5) 100,000 | | | 604,000 |
| Dividend Income | 4,000 | | (8) 4,000 | | | 0 |
| Total Revenue | 408,000 | 300,000 | | | | 604,000 |
| Cost of Goods Sold | 200,000 | 160,000 | (6) 4,167 | (5) 100,000 | | |
| | | | | (7) 2,500 | | 261,667 |
| Operating Expenses | 36,400 | 50,000 | (4) 6,000 | | | 93,025 |
| | | | (11) 625 | | | |
| Income Taxes | 40,200 | 27,000 | | | | 67,200 |
| | 276,600 | 237,000 | | | | 421,892 |
| Net/Consolidated Income | 131,400 | 63,000 | | | | 182,108 |
| Noncontrolling Interest in Consolidated Income | | | | | | |
| Preferred Stock ($15,000 × 1.00) | | | | | 15,000 | |
| Common Stock ($41,375* × .20) | | | | | 8,275 | (23,275) |
| Net Income to Retained Earnings | 131,400 | 63,000 | 114,792 | 102,500 | 23,275 | 158,833 |
| Retained Earnings Statement | | | | | | |
| 1/1 Retained Earnings - Parson Industries | 157,400 | | (4) 2,400 | (1) 24,000 | | |
| | | | (7) 2,500 | (3) 24,000 | | 192,000 |
| | | | (10) 5,000 | | | |
| | | | (11) 3,500 | | | |
| Succo Company | | | | | | |
| Preferred Stock | | 34,000 | | | 34,000 | |
| Common Stock | | 73,000 | (9) 73,000 | | | |
| Net Income from above | 131,400 | 63,000 | 114,792 | 102,500 | 23,275 | 158,833 |
| Dividends Declared | | | | | | |
| Parson Industries | (65,000) | | | | | (65,000) |
| Succo Company | | | | | | |
| Preferred Stock | | (45,000) | | | (45,000) | |
| Common Stock | | (5,000) | | (8) 4,000 | (1,000) | |
| 12/31 Retained Earnings to Balance Sheet | 223,800 | 120,000 | 201,192 | 154,500 | 11,275 | 285,833 |

* ($63,000 - $6,000 loss - $625 depreciation) - $15,000

**Problem 9-8 (continued)**

| | Parson | Succo | Eliminations | | Noncontrolling | Consolidated |
|---|---|---|---|---|---|---|
| | Industries | Company | Dr. | Cr. | Interest | Balances |
| Balance Sheet | | | | | | |
| Cash and Receivables | 396,800 | 205,000 | | (2) 10,000 | | 591,800 |
| Inventories | 200,000 | 170,000 | | (6) 4,167 | | 365,833 |
| Land | 300,000 | 120,000 | (10) 6,250 | | | 426,250 |
| Buildings and Equipment | 697,000 | 245,000 | (3) 50,000 | | | |
| | | | (10) 12,500 | | | 1,004,500 |
| Accumulated Depreciation | (100,000) | (70,000) | | (3) 20,000 | | |
| | | | | (4) 9,000 | | |
| | | | | (11) 5,000 | | (204,000) |
| Investment in Succo Company | 300,000 | | (1) 24,000 | (9) 324,000 | | 0 |
| Goodwill | | | (10) 57,000 | | | 57,000 |
| Difference between Implied and Book Value | | | (9) 82,000 | (10) 82,000 | | 0 |
| Total Assets | 1,793,800 | 670,000 | | | | 2,241,383 |
| Current Liabilities | 370,000 | 100,000 | (2) 10,000 | | | 460,000 |
| Bonds Payable | 400,000 | 100,000 | | | | 500,000 |
| Preferred Stock - Succo Company | | 100,000 | | | 100,000 | |
| Common Stock | | | | | | |
| Parson Industries, $10 par | 600,000 | | | | | 600,000 |
| Succo Company, $10 par | | 200,000 | (9) 200,000 | | | |
| Other Contributed Capital | | | | | | |
| Parson Industries | 200,000 | | | | | 200,000 |
| Succo Company | | 50,000 | (9) 50,000 | | | |
| Retained Earnings from above | 223,800 | 120,000 | 201,192 | 154,500 | 11,275 | 285,833 |
| 1/1 Noncontrolling interest in Net Assets | | | (4) 600 | (3) 6,000 | 84,275 | |
| | | | (10) 1,250 | (9) 81,000 | | |
| | | | (11) 875 | | | |
| 12/31 Noncontrolling interest in Net Assets | | | | | 195,550 | 195,550 |
| Total Liabilities and Equity | 1,793,800 | 670,000 | 695,667 | 695,667 | | 2,241,383 |

**Problem 9-8 (continued)**

Explanations of workpaper entries

| | | | |
|---|---|---|---|
| (1) | Investment in Succo Company | 24,000 | |
| | 1/1 Retained Earnings - Parson Industries | | 24,000 |

To establish reciprocity (convert to equity),
(($73,000 - $43,000) × .80 = $24,000).

| | | | |
|---|---|---|---|
| (2) | Current Liabilities (Accounts Payable) | 10,000 | |
| | Cash and Receivables (Accounts Receivables) | | 10,000 |

To eliminate intercompany receivable and payable.

| | | | |
|---|---|---|---|
| (3) | Buildings and Equipment | 50,000 | |
| | 1/1 Retained Earnings - Parson Industries ($30,000 × .80) | | 24,000 |
| | 1/1 Noncontrolling Interest | | 6,000 |
| | Accumulated Depreciation | | 20,000 |

To eliminate unrealized loss on intercompany sale of equipment and to restate property and equipment at original cost to Succo Company

| | | | |
|---|---|---|---|
| (4) | 1/1 Retained Earnings - Parson Industries ($3,000 × .80) | 2,400 | |
| | 1/1 Noncontrolling interest | 600 | |
| | Operating expenses (depreciation expense) ($80,000 – $50,000)/5 | 6,000 | |
| | Accumulated Depreciation | | 9,000 |

To adjust depreciation recorded during the current and prior years.

| | | | |
|---|---|---|---|
| (5) | Sales | 100,000 | |
| | Cost of Goods Sold (purchases) | | 100,000 |

To eliminate intercompany sales.

| | | | |
|---|---|---|---|
| (6) | Cost of Goods Sold (Ending Inventory – Income Statement) | 4,167 | |
| | Inventory (Balance Sheet) ($25,000 – $25,000/1.20) | | 4,167 |

To eliminate unrealized intercompany profit in ending inventory.

| | | | |
|---|---|---|---|
| (7) | 1/1 Retained Earnings Parson Industries | 2,500 | |
| | Cost of Goods Sold ($15,000 – $15,000/1.20) | | 2,500 |

To recognize profit realized during the year.

| | | | |
|---|---|---|---|
| (8) | Dividend Income | 4,000 | |
| | Dividends declared | | 4,000 |

To eliminate intercompany dividends.

| | | | |
|---|---|---|---|
| (9) | 1/1 Retained Earnings – Succo- Common Stock | 73,000 | |
| | Common Stock – Succo | 200,000 | |
| | Other Contributed Capital – Succo | 50,000 | |
| | Difference between Implied and Book Value | 82,000 | |
| | Investment in Succo Company | | 324,000 |
| | Noncontrolling interest account [$75,000 + ($73,000 - $43,000) x .2] | | 81,000 |

To eliminate the investment account and create noncontrolling interest account.

**Problem 9-8 (continued)**

| | | |
|---|---|---|
| (10)Buildings and Equipment | 12,500 | |
| Land | 6,250 | |
| Goodwill | 57,000 | |
| 1/1 Retained Earnings Parson Industries | 5,000 | |
| Noncontrolling interest | 1,250 | |
| Difference between Implied and Book Value | | 82,000 |

To allocate the difference between implied and book value.

| | | |
|---|---|---|
| (11) 1/1 Retained Earnings - Parson Industries* | 3,500 | |
| Noncontrolling interest* | 875 | |
| Operating Expense (Depreciation) | 625 | |
| Accumulated Depreciation | | 5,000 |

To depreciate the difference between implied and book value.

* $625 x 7 x .8 = $3,500; $625 x 7 x .2 = $875

Supporting Computations:

(3)(4) Loss on sale of equipment - $80,000 - $50,000 = $30,000;
Loss recognized per year $6,000.

$\frac{1}{2} \times \$6,000 = \$3,000$ recognized last year

(6) $\frac{\$25,000}{1.20}$ = $20,833; gross profit $4,167

(7) $\frac{\$15,000}{1.20}$ = $12,500; gross profit $2,500

(10), (11) Allocation of difference

| | | 2010 | 2011-16 | 2017 | Unamortized |
|---|---|---|---|---|---|
| Equipment | $12,500/20 | $625 | $3,750 | $625 | $7,500 |
| Inventories | 6,250 | 6,250 | | | --- |
| Land | 6,250 | --- | | | 6,250 |
| Goodwill | 57,000 | | | | 57,000 |
| Total | $82,000 | $6,875 | $3,750 | $625 | $70,750 |

## Problem 9-8 (continued)

| | | | |
|---|---|---|---|
| **Part C** | Reported net income - Parson Industries | | $131,400 |
| | Less: Dividend income | | 4,000 |
| | | | 127,400 |
| | Add: Realized gross profit in beginning inventory | | 2,500 |
| | Less: Unrealized gross profit in ending inventory | | (4,167) |
| | Parson's contribution to consolidated income | | 125,733 |
| | Reported net income - Succo Company | $63,000 | |
| | Less: Amortization of difference | (625) | |
| | Less: Recorded loss on upstream sale of fixed asset | (6,000) | |
| | Succo Company's realized reported income | 56,375 | |
| | Less: Net income allocated to preferred stockholders | 15,000 | |
| | Net income allocated to common stockholders | 41,375 | |
| | Parson Industries' interest | × .80 | 33,100 |
| | Controlling interest in consolidated net income | | $158,833 |

**Problem 9-9**
**Part A**

Computation and Allocation of Difference between Implied and Book Value Acquired

| | Parent Share | Non-Controlling Share | Entire Value |
|---|---|---|---|
| Purchase price and implied value | **$300,000** | **75,000** | 375,000 |
| Less: Book value of equity acquired: | | | |
| Common Stock | 160,000 | 40,000 | **200,000** |
| Other Contributed Capital | 40,000 | 10,000 | **50,000** |
| Retained Earnings | 34,400 | 5,600 | **43,000**[a] |
| Difference between implied and book value | 65,600 | 16,400 | **82,000** |
| Equipment | (10,000) | (2,500) | **(12,500)** |
| Inventories | (5,000) | (1,250) | **(6,250)** |
| Land | (5,000) | (1,250) | **(6,250)** |
| Balance | 45,600 | 11,400 | 57,000 |
| Goodwill | (45,600) | (11,400) | **(57,000)** |
| Balance | - 0 - | - 0 - | - 0 – |

[a] Allocation of Retained Earnings:

| | | |
|---|---|---|
| Retained Earnings balance, date of purchase | | $62,000 |
| Allocation of Preferred Stock | | |
| Call premium | $4,000 | |
| Dividends in arrears | 15,000 | 19,000 |
| Allocation to common stock | | $43,000 |

**Problem 9-9 (continued)**

**Part B**

| **Income Statement** | Parson Industries | Succo Company | Eliminations Dr. | Eliminations Cr | Noncontrolling Interest | Consolidated Balances |
|---|---|---|---|---|---|---|
| Sales | 404,000 | 300,000 | (4) 100,000 | | | 604,000 |
| Equity in Subsidiary Income | 31,433 | | (7) 31,433 | | | - |
| | 435,433 | 300,000 | | | | 604,000 |
| Cost of Goods Sold | 200,000 | 160,000 | (5) 4,167 | (4) 100,000 | | 261,667 |
| | | | | (6) 2,500 | | |
| Operating Expenses | 36,400 | 50,000 | (3) 6,000 | | | 93,025 |
| | | | (10) 625 | | | |
| Income Taxes | 40,200 | 27,000 | | | | 67,200 |
| Total Expenses | 276,600 | 237,000 | | | | 421,892 |
| Net/Consolidated Income | 158,833 | 63,000 | | | | 182,108 |
| Noncontrolling Interest in Cons. Income | | | | | | |
| Preferred Stock ($15,000 X 1.00) | | | | | 15,000 | |
| Common Stock ($41,372 X .20) | | | | | 8,275 | (23,275) |
| Net Income to Retained Earnings | 158,833 | 63,000 | 142,225 | 102,500 | 23,275 | 158,833 |
| **Retained Earnings Statement** | | | | | | |
| 1/1 Retained Earnings - | | | | | | |
| Parson Industries | 192,000 | | | | | 192,000 |
| Succo Company | | | | | | |
| Preferred Stock | | 34,000 | | | 34,000 | |
| Common Stock | | 73,000 | (8) 73,000 | | | |
| Net Income from above | 158,833 | 63,000 | 142,225 | 102,500 | 23,275 | 158,833 |
| Dividends Declared | | | | | | |
| Parson Industries | (65,000) | | | | | (65,000) |
| Succo Company | | | | | | |
| Preferred Stock | | (45,000) | | | (45,000) | |
| Common Stock | | (5,000) | | (7) 4,000 | (1,000) | |
| 12/31 Retained Earnings to Balance Sheet | 285,833 | 120,000 | 215,225 | 106,500 | 11,275 | 285,833 |

| **Problem 9-9 (continued)** | Parson | Succo | Eliminations | | Noncontrol. | Consolidated |
|---|---|---|---|---|---|---|
| **Balance Sheet** | Industries | Company | Dr. | Cr. | Interest | Balances |
| Cash and Receivables | 396,800 | 205,000 | | (1) 10,000 | | 591,800 |
| Inventories | 200,000 | 170,000 | | (5) 4,167 | | 365,833 |
| Land | 300,000 | 120,000 | (9) 6,250 | | | 426,250 |
| Buildings and Equipment | 697,000 | 245,000 | (2) 50,000 | | | 1,004,500 |
| | | | (9) 12,500 | | | |
| Accumulated Depreciation | (100,000) | (70,000) | | (2) 20,000 | | (204,000) |
| | | | | (3) 9,000 | | |
| | | | | (10) 5,000 | | |
| Investment in Succo Company | 362,033 | | | (7) 27,433 | | |
| | | | (3) 2,400 | (8) 324,000 | | |
| | | | (6) 2,500 | | | |
| | | | (9) 5,000 | (2) 24,000 | | |
| | | | (10) 3,500 | | | |
| Goodwill | | | (9) 57,000 | | | 57,000 |
| Difference between Implied & Book Value | | | (8) 82,000 | (9) 82,000 | | |
| Total Assets | 1,855,833 | 670,000 | | | | 2,241,383 |
| Current Liabilities | 370,000 | 100,000 | (1) 10,000 | | | 460,000 |
| Bonds Payable | 400,000 | 100,000 | | | | 500,000 |
| Preferred Stock - Succo Company | | 100,000 | | | 100,000 | |
| Common Stock | | | | | | |
| Parson Industries, $10 par | 600,000 | | | | | 600,000 |
| Succo Company, $10 par | | 200,000 | (8) 200,000 | | | |
| Other Contributed Capital | | | | | | |
| Parson Industries | 200,000 | | | | | 200,000 |
| Succo Company | | 50,000 | (8) 50,000 | | | |
| Retained Earnings from above | 285,833 | 120,000 | 215,225 | 106,500 | 11,275 | 285,833 |
| 1/1 Noncontrolling Interest in Net Assets | | | (3) 600 | (2) 6,000 | 84,275 | |
| | | | (9) 1,250 | (8) 81,000 | | |
| | | | (10) 875 | | | |
| 12/31 Noncontrolling Interest in Net Assets | | | | | 195,550 | 195,550 |
| Total Liabilities and Equity | 1,855,833 | 670,000 | 699,100 | 699,100 | | 2,241,383 |

**Problem 9-9 (continued)**

Explanations of workpaper entries

| | | | |
|---|---|---|---|
| (1) | Current Liabilities (accounts payable) | 10,000 | |
| | Cash and Receivables (Accounts Receivables) | | 10,000 |
| | To eliminate intercompany receivable and payable. | | |
| (2) | Buildings and Equipment | 50,000 | |
| | Investment in Succo Company ($30,000 × .80) | | 24,000 |
| | 1/1 Noncontrolling Interest | | 6,000 |
| | Accumulated Depreciation | | 20,000 |
| | To eliminate unrealized loss on intercompany sale of equipment and to restate property and equipment at original cost to Succo Company | | |
| (3) | Investment in Succo Company ($3,000 × .80) | 2,400 | |
| | 1/1 Noncontrolling Interest | 600 | |
| | Operating Expenses (Depreciation Expense) | 6,000 | |
| | Accumulated Depreciation | | 9,000 |
| | To adjust depreciation recorded during the current and prior years. | | |
| (4) | Sales | 100,000 | |
| | Cost of Goods Sold (Purchases) | | 100,000 |
| | To eliminate intercompany sales. | | |
| (5) | Cost of Goods Sold (Ending Inventory – Income Statement) | 4,167 | |
| | Inventory (Balance Sheet) ($25,000 – ($25,000/1.20)) | | 4,167 |
| | To eliminate unrealized intercompany profit in ending inventory. | | |
| (6) | Investment in Succo Company | 2,500 | |
| | Cost of Goods Sold ($15,000 – ($15,000/1.20)) | | 2,500 |
| | To recognize profit realized during the year. | | |
| (7) | Equity in Subsidiary Income | 31,433 | |
| | Dividends Declared | | 4,000 |
| | Investment in Succo Company | | 27,433 |
| | To reverse the effect of parent company entries during the year for subsidiary dividend and income. | | |
| (8) | 1/1 Retained Earnings – Succo- Common Stock | 73,000 | |
| | Common Stock – Succos | 200,000 | |
| | Other Contributed Capital – Succo | 50,000 | |
| | Difference between Implied and Book Value | 82,000 | |
| | Investment in Succo Company | | 324,000 |
| | Noncontrolling interest account [$75,000 + ($73,000 - $43,000) x .2] | | 81,000 |
| | To eliminate the investment account and create noncontrolling interest account. | | |

**Problem 9-9 (continued)**

| | | |
|---|---|---|
| (9) Buildings and Equipment | 12,500 | |
| Land | 6,250 | |
| Goodwill | 57,000 | |
| Investment in Succo Company | 5,000 | |
| Noncontrolling interest | 1,250 | |
| Difference between Implied and Book Value | | 82,000 |
| To allocate the difference between implied and book value. | | |

| | | |
|---|---|---|
| (10) Investment in Succo Company ($625 x 7 x .8 ) | 3,500 | |
| Noncontrolling interest ($625 x 7 x .2 ) | 875 | |
| Operating Expense (depreciation) | 625 | |
| Accumulated Depreciation | | 5,000 |
| To depreciate the difference between implied and book value. | | |

Supporting Computations:

(2)(3) Loss on sale of equipment - $80,000 - $50,000 = $30,000;
Loss recognized per year $6,000.

$\frac{1}{2} \times \$6,000 = \$3,000$ recognized last year

(5) $\frac{\$25,000}{1.20}$ = $20,833; gross profit $4,167

(6) $\frac{\$15,000}{1.20}$ = $12,500; gross profit $2,500

(9), (10) Allocation of difference

| | | 2010 | 2011-16 | 2017 | Unamortized |
|---|---|---|---|---|---|
| Equipment | $12,500/20 | $625 | $3,750 | $625 | $7,500 |
| Inventories | 6,250 | 6,250 | | | --- |
| Land | 6,250 | --- | | | 6,250 |
| Goodwill | 57,000 | | | | 57,000 |
| Total | $82,000 | $6,875 | $3,750 | $625 | $70,750 |

**Problem 9-9 (continued)**

| | | | |
|---|---|---|---|
| **Part C** | Reported net income - Parson Industries | | $131,400 |
| | Less: Dividend income | | 4,000 |
| | | | 127,400 |
| | Add: Realized gross profit in beginning inventory | | 2,500 |
| | Less: Unrealized gross profit in ending inventory | | (4,167) |
| | Parson's contribution to consolidated income | | 125,733 |
| | Reported net income - Succo Company | $63,000 | |
| | Less: Amortization of difference | (625) | |
| | Less: Recorded loss on upstream sale of fixed asset | (6,000) | |
| | Succo Company's realized reported income | 56,375 | |
| | Less: Net income allocated to preferred stockholders | 15,000 | |
| | Net income allocated to common stockholders | 41,375 | |
| | Parson Industries' interest | × .80 | 33,100 |
| | Controlling interest in consolidated net income | | $158,833 |

## Problem 9-10

**Part A** Prezo Company

| | |
|---|---|
| Purchase price of bonds | $247,071 |
| Par value of bonds ($400,000 × 0.60) | 240,000 |
| Constructive loss | $ 7,071 |

Satz Company

| | |
|---|---|
| Bonds Payable | $400,000 |
| Unamortized premium ($9,000 + $1,500) | 24,008 |
| Carrying value - 7/1/2011 | 424,008 |
| | ×.60 |
| Carrying value of bonds retired | 254,405 |
| Par value | 240,000 |
| Constructive gain | $ 14,405 |

**Problem 9-10 (continued)**

**Part B**

PREZO COMPANY AND SUBSIDIARY
Consolidated Statements Workpaper
For the Year Ended December 31, 2011

| | Prezo Company | Salz Company | Eliminations Dr. | Eliminations Cr. | Noncontrolling Interest | Consolidated Balances |
|---|---|---|---|---|---|---|
| **Income Statement** | | | | | | |
| Sales | 2,680,000 | 1,860,000 | | | | 4,540,000 |
| Dividend Income | 120,000 | | (7) 120,000 | | | |
| Other Income | 266,000 | 120,000 | | (2) 882 | | |
| | | | (5) 7,200 | | | 374,882 |
| Gain on Constructive Retirement of Bonds | | | | (3) 14,405 | | 14,405 |
| Loss on Constructive Retirement of Bonds | | | (1) 7,071 | | | (7,071) |
| Total Revenue | 3,066,000 | 1,980,000 | | | | 4,927,016 |
| Expenses | 2,678,000 | 1,580,000 | (4) 1,824 | (5) 7,200 | | 4,252,624 |
| Net/Consolidated Income | 388,000 | 400,000 | | | | 674,392 |
| Noncontrolling Interest in Consolidated Income ($400,000 + $14,405- $1,824) × 0.20 | | | | | 82,516 | (82,516) |
| Net Income to Retained Earnings | 388,000 | 400,000 | 136,095 | 22,487 | 82,516 | 591,876 |
| **Retained Earnings Statement** | | | | | | |
| 1/1 Retained Earnings: | | | | | | |
| Prezo Company | 480,000 | | | | | 480,000 |
| Satz Company | | 300,000 | (8) 300,000 | | | |
| Net Income from above | 388,000 | 400,000 | 136,095 | 22,487 | 82,516 | 591,876 |
| Dividends Declared: | | | | | | |
| Prezo Company | (250,000) | | | | | (250,000) |
| Satz Company | | (150,000) | | (7) 120,000 | (30,000) | |
| 12/31 Retained Earnings to Balance Sheet | 618,000 | 550,000 | 436,095 | 142,487 | 52,516 | 821,876 |

| **Problem 9-10 (continued)** | Prezo Company | Salz Company | Eliminations Dr. | Eliminations Cr. | Noncontrolling Interest | Consolidated Balances |
|---|---|---|---|---|---|---|
| **Balance Sheet** | | | | | | |
| Current Assets | 920,000 | 580,000 | | | | 1,500,000 |
| Investment in Satz Company Common Stock | 880,000 | | | (8) 880,000 | | |
| Investment in Satz Co. Bonds | 246,189 | | (2) 882 | (1) 7,071 | | |
| | | | | (6) 240,000 | | |
| Other Assets | 2,326,411 | 1,320,000 | | | | 3,646,411 |
| Total Assets | 4,372,600 | 1,900,000 | | | | 5,146,411 |
| | | | | | | |
| Bonds Payable | 700,000 | 400,000 | (6) 240,000 | | | 860,000 |
| Premium on Bonds Payable | | 20,968 | (3) 14,405 | (4) 1,824 | | 8,387 |
| Other Liabilities | 1,454,600 | 129,032 | | | | 1,583,632 |
| Common Stock | | | | | | |
| Prezo Company | 1,600,000 | | | | | 1,600,000 |
| Satz Company | | 800,000 | (8) 800,000 | | | |
| Retained Earnings from above | 618,000 | 550,000 | 440,895 | 142,487 | 52,516 | 821,876 |
| Noncontrolling Interest in Net Assets | | | | (8) 220,000 | 220,000 | |
| | | | | | 272,516 | 272,516 |
| Total Liabilities and Equity | 4,372,600 | 1,900,000 | 1,491,382 | 1,491,382 | | 5,146,411 |

**Problem 9-10 (continued)**

Explanations of workpaper entries

| | | | |
|---|---|---|---|
| (1) | Constructive Loss on Bond Retirement | 7,071 | |
| | Investment in Satz Company Bonds | | 7,071 |
| | To recognize constructive loss and adjust the bond investment to par value | | |
| (2) | Investment in Satz Company Bonds | 882 | |
| | Interest Income | | 882 |
| | To adjust interest income for the loss recorded this period | | |
| (3) | Premium on Bonds Payable | 14,405 | |
| | Constructive Gain on Bond Retirement | | 14,405 |
| | To recognize constructive gain and adjust the intercompany bonds to par value | | |
| (4) | Interest Expense ($3,040 × 0.60) | 1,824 | |
| | Premium on Bonds Payable | | 1,824 |
| | To adjust interest expense for the gain recorded this period | | |
| (5) | Interest Income ($240,000 × 0.10 × (6/12)) × 0.60 | 7,200 | |
| | Interest Expense | | 7,200 |
| | To eliminate intercompany interest. | | |
| (6) | Bonds Payable | 240,000 | |
| | Investment in Satz Company Bonds | | 240,000 |
| | To eliminate intercompany bond investment and liability | | |
| (7) | Dividend Income | 120,000 | |
| | Dividends Declared | | 120,000 |
| | To eliminate intercompany dividends | | |
| (8) | Beginning Retained Earnings – Satz | 300,000 | |
| | Common Stock – Satz | 800,000 | |
| | Investment in Satz Company Common Stock | | 880,000 |
| | Noncontrolling interest | | 220,000 |
| | To eliminate investment account and create noncontrolling interest account | | |

**Part C**

| | | |
|---|---|---|
| Income of Prezo from independent operations ($388,000 - $120,000) | | $268,000 |
| Less: Constructive loss on bond retirement | | (7,071) |
| Add: Portion of constructive loss recorded this period | | 882 |
| Prezo's contribution to combined income | | 261,811 |
| Reported net income of Satz | $400,000 | |
| Add: Constructive gain on bond retirement | 14,405 | |
| Less: Portion of constructive gain recorded this period | (1,824) | |
| Satz's contribution to consolidated income | 412,581 | |
| Prezo’s percentage | × 0.80 | 330,065 |
| Controlling interest in consolidated net income | | $591,876 |

# CHAPTER 10

## ANSWERS TO QUESTIONS

1. Extension of payment periods. The debtor continues to manage the business, and the creditors merely extend the payment due date(s) for existing debts.

   Composition agreements. A composition agreement is an agreement between the debtor company and its creditors under which the creditors agree to accept less than the full amount of their claims.

   Formation of a creditor's committee. The debtor company and its creditors agree to form a committee of creditors responsible for managing the debtor's business affairs for the period during which plans are developed to rehabilitate, reorganize, or liquidate the business.

   Voluntary assignment of assets. An insolvent debtor elects to voluntarily place his property under the control of a trustee for the benefit of his creditors.

2. In a voluntary petition, the debtor files a petition with a bankruptcy court for liquidation under Chapter 7 or for reorganization under Chapter 11. The bankruptcy judge may refuse a voluntary petition if refusal is considered to be in the best interest of the creditors.

   In an involuntary petition, creditors initiate the action by filing a petition for liquidation or reorganization with the bankruptcy court. If there are twelve or more creditors, the petition must be signed by three or more of such creditors whose claims aggregate at least $5,000 more than the value of any liens on the property of the debtor. If there are fewer than twelve creditors, the petition may be filed by one or more of such creditors whose claims aggregate at least $5,000 more than the value of any liens on the debtor's property.

3. Fully secured claims. Those claims with liens against specific assets whose realizable value is equal to or in excess of the claim.

   Partially secured claims. Those claims with liens against specific assets whose realizable value is less than the amount of the claim.

   Unsecured claims. Those claims that are not secured by liens against specific assets and are, therefore, paid from whatever total money remains after secured creditors are satisfied. Some unsecured claims take priority over others under federal bankruptcy law.

4. The five categories of unsecured claims with priority are:
   a. Administrative expenses, fees, and charges incurred in administering the bankrupt's estate.
   b. Unsecured claims for wages, salaries, or commissions earned by an employee within 90 days before the date of filing a petition in bankruptcy, limited to the extent of $4,650 per employee.
   c. Claims for contributions to employee benefit plans from services rendered within 180 days before the date of filing a petition in bankruptcy, but subject to certain limitations.
   d. Unsecured claims of individuals, to the extent of $2,100 for each such individual, arising from the deposit of money in connection with the purchase, lease, or rental of property or services that were not delivered or performed.
   e. Claims of governmental units for unpaid taxes.

5. Dividends represent the final distribution made to general unsecured creditors.

6. a. Transfer of Assets:

The transfer of assets by a debtor to a creditor generally produces two types of gain or loss. A gain on restructuring of debt is recognized for the excess of the carrying value of the payable over the fair value of the assets transferred. This gain is reported as a component of operating income. In addition, a gain or loss on transfer of assets is recognized for the difference between the fair value and book value of the assets transferred. This gain (loss) is reported as a component of operating income also.

b. Grant of an Equity Interest:

A debtor who grants an equity interest to a creditor will report a gain for the difference between the fair value of the equity interest issued and the carrying amount of the payable settled.

c. Modification of Terms:

In a modification of terms, the debtor will report a gain on restructuring only if the total future cash payments specified by the new terms are less than the carrying value of the payable. The amount of gain is measure as the difference between the total future cash payments specified by the new terms and the carrying value of the payable.

7. The statement of affairs is an accounting report that is designed to permit interested parties to determine the total expected amounts that could be realized from the disposition of a company's assets, the priorities in the use of the realization proceeds in satisfying claims, and the potential net deficiency that would result if the assets were realized and claims liquidated.

8. The officer is incorrect. Some claims, such as for taxes, fines, and penalties are not discharged.

9. The primary duties of a trustee are:
   a. To be accountable of all property received.
   b. To examine proofs of claims and object to the allowance of any claim that is improper.
   c. To furnish such information concerning the estate and the estate's administration as is requested by a party in interest.
   d. If the business of the debtor is authorized to be operated, file with the court and with any governmental unit charged with responsibility for collection of any tax arising out of such operation, periodic reports and summaries of the operation of the business.
   e. If the debtor has not done so, file with the court a list of creditors, a schedule of assets and liabilities, and a statement of the debtor's financial affairs.
   f. If applicable, file a plan of reorganization, and, if the plan is accepted, file such reports as are required by the court.

10. The purpose of a combining workpaper is to serve as a means by which the trustee's accounts are united with the debtor company's accounts in order to prepare appropriate financial statements.

11. The purpose of a realization and liquidation account is to report summary realization and distribution activities of a trustee or receiver to the court. It reports the changes that have occurred during a period in the monetary items because that is what the court officials are primarily interested in.

## BUSINESS ETHICS SOLUTIONS

**1.** In chapter 7 bankruptcy liquidation, firms are assumed to be past the stage of reorganization and must sell off any un-exempt assets to pay creditors. In contrast, Chapter 11 bankruptcy allows the firm the opportunity to reorganize its debt and to try to re-emerge as a healthy organization. In both cases, the creditors and other claim-holders suffer losses as they will be most likely getting less return on investment than expected at the time of the initial decision to invest in the company. From an ethical perspective, a chapter 11 bankruptcy provides the creditors and other claim-holders a better chance of recovering higher value for their investments than under chapter 7 as the firm strives to recover and reorganize under chapter 11 but not under chapter 7.

**2**. The new law makes sweeping changes to American bankruptcy laws and makes it more difficult for individuals to file bankruptcy under chapter 7. The new law requires a means test to determine whether the borrowers have enough resources to pay for their debts. For additional information, see the following link:
**http://en.wikipedia.org/wiki/Bankruptcy_Abuse_Prevention_and_Consumer_Protection_Act]**

In addition the new law laid down the following requirements

- Mandatory credit counseling and debtor education
- Additional filing requirements and fees
- Increased attorney liability and costs
- Fewer automatic protections for filers
- Increased compliance requirements for small businesses
- Increased amount of debt repayment under Chapter 13
- Increased length of time between discharges

These changes provide more safety for the creditors, who should consequently be better protected. Individuals who fail the means test may opt instead for Chapter 13, which involves a repayment of their debt over time.

**3.** Applying this test to businesses would benefit the creditors and other claim-holders, as they would feel a slight buffer to their risk, which might stimulate new business as a result of easier fund raising. It may also prevent businesses from venturing into unduly risky areas as they would not be able to bail out as easily by filing under chapter 7 if things went wrong (hence becoming somewhat more risk averse). It would seem to shift the risk balance somewhat to the shoulders of the entrepreneur from those of the investor.

**4.** Filing for bankruptcy is never a desirable or ethical option, but sometimes circumstances may arise that seem to force a business or an individual into this tough situation. Whether the individual finds another way at such a time or not is a personal issue and an ethical dilemma, and there is not necessarily a correct answer to this question. The purpose of this discussion is to get the student to thinking about his or her personal position, and where his ethical stance would be *before* the situation arises. Ideally, of course, the student will never find himself or herself in such a position, but, as the old saying goes, until you've walked a mile in another's shoes…

## ANSWERS TO EXERCISES

### Exercise 10-1

1. a
2. b
3. a
4. c
5. b

## Exercise 10-2

1. False Insolvency is the inability to pay debts as they become due. Classification as to current and long-term is irrelevant.

2. True

3. True

4. False Secured creditors are paid first from the proceeds of sale of specific assets. If there are proceeds remaining, unsecured creditors with priority will be paid before other unsecured creditors.

5. True

6. False A gain on restructuring is measured by the excess of the carrying value of the payable settled over the fair value of the assets transferred.

7. False Restructuring gains from troubled debt restructurings are reported by the debtor as a separate component of operating income.

8. False The statement of affairs is a report that shows the estimated amount to be paid to each class of claim in the event of liquidation.

## Exercise 10-3

| | | | |
|---|---|---|---|
| **Part A** | Copyright | 50,000 | |
| | Gain on Transfer of Assets | | 50,000 |

To revalue the copyright to its current fair value. [$95,000 – ($100,000 - $55,000)]

| | | |
|---|---|---|
| Notes Payable | 150,000 | |
| Accrued Interest Payable | 15,000 | |
| Accumulated Amortization – Copyright | 55,000 | |
| Copyright ($100,000 + $50,000) | | 150,000 |
| Gain on Debt Restructuring | | 70,000 |

**Part B** The gain on transfer of assets ($50,000) should be reported as a separate component (assuming material in amount) of operating income; the gain on restructuring ($70,000) should also be reported as a separate component of operating income.

| | | | |
|---|---|---|---|
| **Part C** | Loss on Transfer of Assets | 15,000 | |
| | Copyright | | 15,000 |

To revalue the copyright to its current fair value. [$30,000 – ($100,000 - $55,000)]

| | | |
|---|---|---|
| Notes Payable | 150,000 | |
| Accrued Interest Payable | 15,000 | |
| Accumulated Amortization – Copyright | 55,000 | |
| Copyright ($100,000 - $15,000) | | 85,000 |
| Gain on Debt Restructuring ($165,000 - $30,000) | | 135,000 |

**Exercise 10-4**

**Part A** No gain should be recognized because the total future cash payments specified by the new terms of $1,144,250 ($995,000 carrying value plus 3 years' interest at $49,750 per year) exceed the current carrying value of the debt, $995,000.

**Part B**

| | | |
|---|---|---|
| Note Payable | 900,000 | |
| Accrued Interest Payable | 95,000 | |
| Restructured Debt | | 995,000 |

**Exercise 10-5**

**Part A** A gain on restructuring should be recognized because the carrying value of the debt, $995,000, exceeds the total future cash payments specified by the new terms, $744,000 ($600,000 face value plus $144,000 interest). The gain of $251,000 should be reported as a separate component of operating income.

**Part B**

| | | |
|---|---|---|
| Notes Payable | 900,000 | |
| Accrued Interest Payable | 95,000 | |
| Restructured Debt | | 744,000 |
| Gain on Debt Restructuring | | 251,000 |

**Part C**

| | | |
|---|---|---|
| Restructured Debt | 48,000 | |
| Cash | | 48,000 |

**Exercise 10-6**

| | |
|---|---|
| Realizable Value of all Assets<br>($190,000 + $90,000 + $102,000) | $382,000 |
| Allocated to: | |
| Fully secured creditors | (91,000) |
| Partially secured creditors | (90,000) |
| Unsecured creditors with priority | (30,000) |
| Remainder available to general unsecured creditors | $171,000 |

| | |
|---|---|
| Payment rate to general unsecured creditors<br>(Including balance due to partially secured creditors)<br>$171,000 / ($350,000 + ($120,000 - $90,000)) | 45% |

| | |
|---|---|
| Realizable Value of Assets: | |
| Assets pledged to fully secured creditors | $190,000 |
| Assets pledged to partially secured creditors | 90,000 |
| Free assets | 102,000 |
| Total realizable value | $382,000 |

| | |
|---|---|
| Amounts to be paid to: | |
| Fully secured creditors | $ 91,000 |
| Partially secured creditors [$90,000 + .45($30,000)] | 103,500 |
| Unsecured creditors with priority | 30,000 |
| General unsecured creditors .45($350,000) | 157,500 |
| Total | $382,000 |

**Exercise 10-7**

BALL COMPANY
Statement of Affairs
June 30, 2009

| Book Value | Assets | | Realizable Value |
|---|---|---|---|
| | Assets Pledged with Fully Secured Creditors: | | |
| $180,000 | Inventory | $110,000 | |
| | Note Payable | 100,000 | $ 10,000 |
| | Assets Pledged with Partially Secured Creditors: | | |
| 170,000 | Accounts Receivable | 95,000 | |
| | Note Payable | 100,000 | |
| | Free Assets | | |
| 20,400 | Cash | | 20,400 |
| 430,000 | Property and Equipment | | 320,000 |
| | Total Net Realizable Value | | 350,400 |
| | Liabilities having Priority – Wages | | 120,000 |
| | Net Free Assets | | 230,400 |
| | Estimated Deficiency to Unsecured Creditors | | 124,600 |
| $800,400 | | | $355,000 |
| | Equities | | Unsecured |
| | Liabilities Having Priority: | | |
| $120,000 | Accrued Wages | $120,000 | |
| | Fully Secured Creditors: | | |
| 100,000 | Note Payable | $100,000 | |
| | Partially Secured Creditors: | | |
| 100,000 | Note Payable | $100,000 | |
| | Accounts Receivable | 95,000 | $ 5,000 |
| | Unsecured Creditors: | | |
| 350,000 | Accounts Payable | | 350,000 |
| | Stockholders' Equity | | |
| 400,000 | Common Stock | | |
| (269,600) | Retained Earnings (deficit) | | |
| $800,400 | | | $355,000 |

**Exercise 10-7 (continued)**

BALL COMPANY
Deficiency Account
June 30, 2009

| Estimated Losses: | | Estimated Gains: | |
|---|---|---|---|
| Accounts Receivable | $ 75,000 | Common Stock | $ 400,000 |
| Inventory | 70,000 | Retained Earnings | (269,600) |
| Property and Equipment | 110,000 | Estimated Deficiency to Unsecured Creditors | 124,600 |
| | $255,000 | | $255,000 |

**Exercise 10-8**

| | | | |
|---|---|---|---|
| **Part A** | Retained Earnings | 52,700 | |
| | Allowance for Uncollectibles ($48,700 - $40,000) | | 8,700 |
| | Property and Equipment ($142,000 - $118,000) | | 24,000 |
| | Goodwill | | 20,000 |
| | To record the revaluation of assets | | |
| | | | |
| | Common Stock - $20 par | 200,000 | |
| | Common Stock - $4 par ($4 × 10,000) | | 40,000 |
| | Reorganization Capital | | 160,000 |
| | To record the exchange of $20 par common stock for $4 par common stock. | | |
| | | | |
| | 10% Bonds Payable | 130,000 | |
| | Reorganization Capital | 24,000 | |
| | Common Stock (6,000 shares at $4 per share) | | 24,000 |
| | 8% Bonds Payable | | 130,000 |
| | To record the exchange of 8% bonds and common stock for the 10% bonds. | | |
| | | | |
| | Reorganization Capital | 134,000 | |
| | Retained Earnings ($81,300 + $52,700) | | 134,000 |
| | To eliminate the deficit in retained earnings. | | |

**Exercise 10-8 (continued)**

**Part B**

CRANE COMPANY
Balance Sheet
December 31, 2009

| | | |
|---|---|---|
| Cash | | $ 33,000 |
| Accounts Receivable | $ 52,500 | |
| Less Allowance for Uncollectibles | 12,500 | 40,000 |
| Inventory | | 71,000 |
| Property and Equipment ($142,000 - $24,000) | | 118,000 |
| Total Assets | | $262,000 |
| Accounts Payable | | $ 66,000 |
| 8% Bonds Payable, due 6/30/2016 | | 130,000 |
| Common Stock, $4 par, 16,000 shares | | 64,000 |
| Reorganization Capital ($160,000 – $24,000 - $134,000) | | 2,000 |
| Total Equities | | $262,000 |

**Exercise 10-9**

| | | |
|---|---|---|
| Cash | 26,700 | |
| Accounts Receivable (old) | 130,400 | |
| Inventory | 191,900 | |
| Property and Equipment | 590,400 | |
| Allowance for Uncollectibles (old) | | 16,000 |
| Accumulated Depreciation | | 211,500 |
| TRX Company – in Receivership ($939,400 – $16,000 - $211,500) | | 711,900 |
| To record the receipt of TRX Company assets. | | |

| | | |
|---|---|---|
| Cash | 31,500 | |
| Accounts Receivable (new) | 264,500 | |
| Sales | | 296,000 |
| To record cash sales and sales on account. | | |

| | | |
|---|---|---|
| Cash | 319,000 | |
| Accounts Receivable (old) | | 76,800 |
| Accounts Receivable (new) | | 242,200 |

| | | |
|---|---|---|
| Purchases | 127,500 | |
| Accounts Payable (new) | | 127,500 |
| To record purchases on account. | | |

| | | |
|---|---|---|
| TRX Company – in Receivership | 206,500 | |
| Accounts Payable (new) | 61,600 | |
| Operating Expenses | 46,000 | |
| Trustee Expenses | 13,000 | |
| Cash | | 327,100 |
| To record cash payments. | | |

**Exercise 10-9 (continued)**

| | | |
|---|---|---|
| Bad Debt Expense | 21,600 | |
| Depreciation Expense | 32,400 | |
| Allowance for Uncollectibles (old) | | 13,000 |
| Allowance for Uncollectibles (new) | | 8,600 |
| Accumulated Depreciation | | 32,400 |
| To record estimated bad debts and depreciation expense. | | |
| | | |
| Allowance for Uncollectibles (old) | 21,000 | |
| Account Receivable (old) | | 21,000 |
| To write off uncollectible accounts. | | |
| | | |
| Sales | 296,000 | |
| Inventory ($191,900 - $149,700) | | 42,200 |
| Purchases | | 127,500 |
| Operating Expenses | | 46,000 |
| Trustee Expenses | | 13,000 |
| Bad Debt Expense | | 21,600 |
| Depreciation Expense | | 32,400 |
| Income Summary | | 13,300 |
| To close nominal accounts and to adjust inventory. | | |
| | | |
| Income Summary | 13,300 | |
| TRX Company – in Receivership | | 13,300 |
| To Close income summary account. | | |

## Exercise 10-10

TRX COMPANY – IN RECEVERSHIP
Combining Workpaper
December 31, 2009

| | Trial Balance | | Adjustments and Eliminations | | Combined | |
|---|---|---|---|---|---|---|
| | Trustee | TRX Company | Dr. | Cr. | Income Statement | Balance Sheet |
| Debits | | | | | | |
| Cash ($26,700 + $31,500 + $319,000 - $327,100) | 50,100 | | | | | 50,100 |
| Accounts Receivable (old) | 53,600 | | | | | 53,600 |
| Accounts Receivable (new) | 22,300 | | | | | 22,300 |
| Inventory | 191,900 | | | (1) 42,200 | | 149,700 |
| Property and Equipment | 590,400 | | | | | 590,400 |
| Purchases | 127,500 | | | (1) 127,500 | | |
| Operating Expenses | 46,000 | | | | 46,000 | |
| Trustee Expenses | 13,000 | | | | 13,000 | |
| Bad Debt Expense | 21,600 | | | | 21,600 | |
| Depreciation Expense | 32,400 | | | | 32,400 | |
| Cost of Goods Sold ($191,900 + $127,500 - $149,700) | | | (1) 169,700 | | 169,700 | |
| Your Name, Trustee | | 505,400 | | (2) 505,400 | | |
| Total | 1,148,800 | 505,400 | | | 282,700 | 866,100 |
| Credits | | | | | | |
| Allowance for Uncollectibles: (Old) | 29,000 | | | | | 29,000 |
| (New) | 8,600 | | | | | 8,600 |
| Accumulated Depreciation | 243,900 | | | | | 243,900 |
| Accounts Payable: (Old) | | 101,900 | | | | 101,900 |
| (New) | 65,900 | | | | | 65,900 |
| Capital Stock | | 800,000 | | | | 800,000 |
| Retained Earnings (Deficit) | | (396,500) | | | | (396,500) |
| Sales | 296,000 | | | | 296,000 | |
| TRX Company-in Receivership | 505,400 | | (2) 505,400 | | | |
| Total | 1,148,800 | 505,400 | 675,100 | 675,100 | 296,000 | |
| | | | | | (13,300) | 13,300 |
| Net Income | | | | | 282,700 | 866,100 |

(1) To adjust inventory and set up cost of goods sold.
(2) To eliminate reciprocal accounts.

## ANSWERS TO PROBLEMS

### Problem 10-1

| | | | |
|---|---|---|---|
| 1. | Accounts Payable | 71,600 | |
| | Cash ($71,600 × .42) | | 30,072 |
| | Gain on Restructuring of Debt | | 41,528 |
| | | | |
| 2. | Allowance for Uncollectible Accounts | 19,450 | |
| | Loss on Transfer of Assets | 3,550 | |
| | Accounts Receivable ($92,000 - $69,000) | | 23,000 |
| | | | |
| | Accounts Payable | 132,400 | |
| | Accounts Receivable | | 69,000 |
| | Gain on Restructuring of Debt ($132,400 - $69,000) | | 63,400 |
| | | | |
| 3. | Accrued Expenses | 14,620 | |
| | Cash | | 14,620 |
| | | | |
| 4. | Notes Payable | 300,000 | |
| | Accrued Interest Payable | 27,000 | |
| | Cash | | 9,000 |
| | Restructured Debt | | 300,000 |
| | Gain on Restructuring of Debt ($327,000 - $309,000) | | 18,000 |

### Problem 10-2

**Part A**

| | | | |
|---|---|---|---|
| 1. | Allowance for Uncollectibles | 16,750 | |
| | Loss on Transfer of Assets | 3,700 | |
| | Accounts Receivable ($71,450 - $51,000) | | 20,450 |
| | | | |
| | Accounts Payable | 69,000 | |
| | Accounts Receivable | | 51,000 |
| | Gain on Restructuring of Debt | | 18,000 |
| | | | |
| 2. | Patents | 8,000 | |
| | Gain on Transfer of Asset ($50,000 - $42,000) | | 8,000 |
| | | | |
| | Accounts Payable | 54,000 | |
| | Patents | | 50,000 |
| | Gain on Restructuring of Debt | | 4,000 |
| | | | |
| 3. | Accrued Wages | 11,900 | |
| | Cash | | 11,900 |
| | | | |
| | Accounts Payable ($142,700 - $69,000 - $54,000) | 19,700 | |
| | Cash ( .6 × $19,700) | | 11,820 |
| | Gain on Restructuring of Debt | | 7,880 |

**Problem 10-2 (continued)**

| | | | |
|---|---|---|---|
| 4. | Notes Payable | 57,000 | |
| | Accrued Interest Payable | 6,000 | |
| | Restructured Debt – due 1/2/11 | | 63,000 |

| | |
|---|---|
| Total future cash payments: | |
| Principal | $63,000 |
| Interest (6% × $63,000) × 2 | 7,560 |
| Total | 70,560 |
| Carrying value | $63,000 |
| No gain recognized | |

| | | | |
|---|---|---|---|
| 5. | Notes Payable | 54,400 | |
| | Accrued Interest Payable | 11,900 | |
| | Restructured Debt – due 1/2/12 | | 52,000 |
| | Gain on Restructuring of Debt | | 14,300 |

| | |
|---|---|
| Total future cash payments: | |
| Principal ($54,400 - $14,400) | $40,000 |
| Interest (10% × $40,000) × 3 | 12,000 |
| Total | 52,000 |
| Carrying value ($54,400 + $11,900) | 66,300 |
| Gain on Restructuring | $14,300 |

| | | | |
|---|---|---|---|
| 6. | Mortgage Note Payable | 80,000 | |
| | Accrued Interest Payable | 20,500 | |
| | Common Stock (100,000 × $0.50) | | 50,000 |
| | Paid-in Capital in Excess of Par | | 9,000 |
| | Gain on Restructuring of Debt ($100,500 – (100,000 × $.59) | | 41,500 |

| | | | |
|---|---|---|---|
| 7, | Common Stock ($290,000 – (580,000 × $.10) | 232,000 | |
| | Retained Earnings | | 66,820 |
| | Paid-in Capital in Excess of Par | | 165,180 |

Retained Earnings

| | | | |
|---|---|---|---|
| Balance 1/2/09 | 156,800 | Gain on restructuring (1) | 18,000 |
| Loss on transfer (1) | 3,700 | Gain on transfer (2) | 8,000 |
| | | Gain on restructuring (2) | 4,000 |
| | | Gain on restructuring (3) | 7,880 |
| | | Gain on restructuring (5) | 14,300 |
| | | Gain on restructuring (6) | 41,500 |
| Balance | 66,820 | | |

**Problem 10-2 (continued)**

**Part B**

SRP COMPANY
Balance Sheet
January 2, 2009

| | | |
|---|---|---|
| Cash ($32,200 - $11,900 - $11,820) | | $ 8,480 |
| Inventories | | 126,600 |
| Plant and Equipment | $322,000 | |
| Less Accumulated Depreciation | 180,700 | 141,300 |
| Land | | 20,800 |
| Patents ($92,000 - $8,000 - $50,000) | | 50,000 |
| Total | | $347,180 |
| Restructured Debt – Due 2009 | | $ 63,000 |
| Due 2012 | | 52,000 |
| Common Stock, $ .10 par value,<br>580,000 shares outstanding | | 58,000 |
| Paid-in Capital in Excess of Par | | 174,180 |
| Retained Earnings since Reorganization on 1/2/09 | | - 0 - |
| Total | | $347,180 |

**Part C** 12/31/09

| | | |
|---|---|---|
| Interest Expense | 3,780 | |
| Interest Payable ($63,000 × .06) | | 3,780 |

No interest is accrued on the debt due in 2012 because all cash payments are reductions of the carrying value of the debt.

1/2/10

| | | |
|---|---|---|
| Interest Payable | 3,780 | |
| Cash | | 3,780 |
| Restructured Debt | 5,200 | |
| Cash ($52,000 × .10) | | 5,200 |

## Problem 10-3

### Part A

PROST COMPANY
Statement of Affairs
December 31, 2009

| Book Value | Assets | | | Realizable Value |
|---|---|---|---|---|
| | Assets Pledged with Fully Secured Creditors: | | | |
| $140,000 | Land | $200,000 | | |
| 400,000 | Plant and Equipment | 205,000 | $405,000 | |
| | | | | |
| | Mortgage Payable | 350,000 | | |
| | Accrued Interest | 3,000 | 353,000 | $ 52,000 |
| | | | | |
| | Assets Pledged with Partially Secured Creditors: | | | |
| 60,000 | Notes Receivable * | 57,500 | | |
| 76,000 | Accounts Receivable | 55,000 | 112,500 | |
| | | | | |
| | Notes Payable | | 225,000 | |
| | | | | |
| | Free Assets | | | |
| 2,500 | Cash | | | 2,500 |
| 4,000 | Prepaid Expenses | | | 4,000 |
| | Inventories: | | | |
| 43,000 | Finished Goods (1) | | | 47,515 |
| 60,000 | Work in Process (2) | | | 84,150 |
| 51,000 | Raw Materials | | | 18,000 |
| 12,000 | Investment in Stock | | | 19,000 |
| 10,000 | Goodwill | | | - 0 - |
| | Total Net Realizable Value | | | 227,165 |
| | Liabilities having Priority – Accrued Wages | | | 45,000 |
| | Net Free Assets | | | 182,165 |
| | | | | |
| | Estimated Deficiency to Unsecured Creditors | | | 150,335 |
| $858,500 | | | | $332,500 |

* $60,000 - $2,500 = $57,500.

**Problem 10-3 (continued)**

| Book Value | Equities | | | Unsecured |
|---|---|---|---|---|
| | Liabilities Having Priority: | | | |
| $ 45,000 | Accrued Wages | | $ 45,000 | |
| | Fully Secured Creditors: | | | |
| 350,000 | Mortgage Payable | | 350,000 | |
| | Accrued Interest | | 3,000 | |
| | | | $353,000 | |
| | Partially Secured Creditors: | | | |
| 225,000 | Bank Notes Payable | | 225,000 | |
| | Notes Receivable | $57,500 | | |
| | Accounts Receivable | 55,000 | 112,500 | $112,500 |
| | Unsecured Creditors: | | | |
| 220,000 | Accounts Payable | | | 220,000 |
| | Stockholders' Equity | | | |
| 380,000 | Capital Stock | | | |
| (361,500) | Retained Earnings | | | |
| $858,500 | | | | $332,500 |

(1) $43,000 × 1.3 = $55,900 × .85 = $47,515

(2) ($60,000 + $30,000) × 1.10 = $99,000 × .85 = $84,150

Deficiency Account
December 31, 2009

| Estimated Losses: | | Estimated Gains: | |
|---|---|---|---|
| Notes Receivable | $ 2,500 | Land | $ 60,000 |
| Accounts Receivable | 21,000 | Investment in Stock | 7,000 |
| Inventory * | 4,335 | Common Stock | 380,000 |
| Property and Equipment | 195,000 | Retained Earnings | (361,500) |
| Goodwill | 10,000 | Estimated Deficiency | |
| Unrecorded Accrued Interest | 3,000 | to Unsecured Creditors | 150,335 |
| | $235,835 | | $235,835 |

* ($47,515 + $84,150 + $18,000) – ($43,000 + $60,000 + $51,000)

**Part B** Estimated dividend to be paid general unsecured creditors:

$$\frac{\text{Net free assets minus cash payment to complete work in process inventory}}{\text{Total amount owed unsecured creditors}}$$

($182,165 - $11,000)/$332,500 = 51.6%

**Problem 10-4**

BRAN COMPANY
Jim Brown, Trustee
Reconciliation and Liquidation Account
June 30, 2009 to December 31, 2009

| | | | | | |
|---|---|---|---|---|---|
| Assets to be Realized | | | Assets Realized | | |
| Receivables (old) | $ 45,000 | | Receivables (old) | | $ 38,000 |
| Less: Allowance for Uncollectibles | 6,000 | $ 39,000 | Receivables (new) | | 85,000 |
| Inventory | | 104,000 | Plant and Equipment | | 39,000 |
| Plant and Equipment | 215,000 | | | | |
| Less: Accumulated Depreciation | 70,000 | 145,000 | Assets Not Realized | | |
| | | | Receivables (new) | $ 15,000 | |
| | | | Less: Allowance for Uncollectibles | 2,000 | 13,000 |
| Assets Acquired | | | Inventory | | 75,000 |
| Receivables (new) | | 100,000 | Plant and Equipment * | 151,000 | |
| | | | Less: Accumulated Depreciation | 55,000 | 96,000 |
| Supplementary Charges | | | | | |
| Purchases | | 35,000 | Supplementary Credits | | |
| Operating Expenses | | 47,000 | Sales | | 130,000 |
| Trustee Expenses | | 2,000 | Gain on Sale of Land | | 11,000 |
| Loss on Sale of Equipment | | 12,000 | | | |
| | | | Liabilities to be Liquidated | | |
| Liabilities Liquidated | | | Accounts Payable (old) | | 145,000 |
| Accounts Payable (old) | | 110,000 | | | |
| Accounts Payable (new) | | 30,000 | Liabilities Incurred | | |
| | | | Accounts Payable (new) | | 35,000 |
| Liabilities Not Liquidated | | | | | |
| Accounts Payable (old) | | 35,000 | | | |
| Accounts Payable (new) | | 5,000 | | | |
| Net Gain (1) | | 3,000 | | | |
| | | $667,000 | | | $667,000 |

* ($215,000 - $14,000 - $50,000) = $151,000

**Problem 10-4 (continued)**

Cash

| | | | |
|---|---:|---|---:|
| Balance June 30 | 15,000 | Accounts Payable (old) | 110,000 |
| Sales | 30,000 | Accounts Payable (new) | 30,000 |
| Accounts Receivable (old) | 38,000 | Operating Expenses | 47,000 |
| Accounts Receivable (new) | 85,000 | Trustee Expenses | 2,000 |
| Sale of Land and Equipment | 38,000 | | |
| Balance 12/31 | 17,000 | | |

(1) Proof of Gain:

| | |
|---|---:|
| Sales | $ 130,000 |
| Cost of Sales ($104,000 + $35,000 - $75,000) | (64,000) |
| Operating Expenses | (47,000) |
| Trustee Expenses | (2,000) |
| Bad Debts Expense | (3,000) |
| Depreciation Expense | (10,000) |
| Gain on Sale of Land | 11,000 |
| Loss on Sale of Equipment | (12,000) |
| Net Gain | $ 3,000 |

## Problem 10-5

**Part A** Trustee's Books

| | | |
|---|---|---|
| Cash | 4,500 | |
| Accounts Receivable (old) | 15,000 | |
| Inventory | 142,650 | |
| Property and Equipment | 90,600 | |
| Allowance for Uncollectibles (old) | | 3,750 |
| Accumulated Depreciation | | 36,825 |
| Plum Company – in Receivership ($252,750 - $3,750 - $36,825) | | 212,175 |
| To record the receipt of Plum Company's assets. | | |
| | | |
| Cash | 78,000 | |
| Accounts Receivable (new) | 75,000 | |
| Sales | | 153,000 |
| To record merchandise sales. | | |
| | | |
| Cash | 75,750 | |
| Accounts Receivable (old) | | 11,250 |
| Accounts Receivable (new) | | 64,500 |
| To record collection of accounts receivable. | | |
| | | |
| Operating Expenses | 11,850 | |
| Trustee Expenses | 3,000 | |
| Cash | | 14,850 |
| To record cash expenses. | | |
| | | |
| Bad Debt Expense | 2,250 | |
| Depreciation Expense | 5,250 | |
| Allowance for Uncollectibles (new) | | 2,250 |
| Accumulated Depreciation | | 5,250 |
| To record adjustment for bad debts and depreciation. | | |
| | | |
| Allowance for Uncollectibles (old) | 3,750 | |
| Accounts Receivable (old) ($15,000 – $11,250) | | 3,750 |
| To write off uncollectible accounts. | | |
| | | |
| Plum Company – in Receivership | 143,175 | |
| Cash | | 143,175 |
| To record payment of old accounts payable. | | |
| | | |
| Cash | 43,500 | |
| Accumulated Depreciation ($36,825 + $5,250) | 42,075 | |
| Loss on Sale of Equipment | 5,025 | |
| Property and Equipment | | 90,600 |
| To record the sale of property and equipment. | | |

**Problem 10-5 (continued)**

| | | |
|---|---|---|
| Sales | 153,000 | |
| Plum Company – in Receivership | 17,025 | |
| Inventory | | 142,650 |
| Operating Expenses | | 11,850 |
| Trustee Expenses | | 3,000 |
| Bad Debt Expense | | 2,250 |
| Depreciation Expense | | 5,250 |
| Loss on Sale of Equipment | | 5,025 |
| To close income statement accounts. | | |

Plum Company Books

| | | |
|---|---|---|
| Allowance for Uncollectibles | 3,750 | |
| Accumulated Depreciation | 36,825 | |
| P. Smith, Trustee | 212,175 | |
| Cash | | 4,500 |
| Accounts Receivable | | 15,000 |
| Inventory | | 142,650 |
| Property and Equipment | | 90,600 |
| To record the transfer of assets to P. Smith. | | |

| | | |
|---|---|---|
| Accounts Payable | 143,175 | |
| P. Smith, Trustee | | 143,175 |
| To record the payment of accounts payable by P. Smith. | | |

| | | |
|---|---|---|
| Retained Earnings | 17,025 | |
| P. Smith, Trustee | | 17,025 |
| To record operating effects reported by P. Smith. | | |

**Problem 10-5 (continued)**

**Part B**

PLUM COMPANY – IN RECEVERSHIP
Combining Workpaper
For Five Months Ending October 31, 2009

| | Trial Balance | | Adjustments and Eliminations | | Combined | |
|---|---|---|---|---|---|---|
| | | PLUM | | | Income | Balance |
| | Trustee | Company | Dr. | Cr. | Statement | Sheet |
| Debits | | | | | | |
| Cash * | 43,725 | | | | | 43,725 |
| Accounts Receivable (new) | 10,500 | | | | | 10,500 |
| Inventory | 142,650 | | | (1) 142,650 | | |
| Operating Expenses | 11,850 | | | | 11,850 | |
| Trustee Expense | 3,000 | | | | 3,000 | |
| Bad Debt Expense | 2,250 | | | | 2,250 | |
| Depreciation Expense | 5,250 | | | | 5,250 | |
| Cost of Goods Sold | | | (1) 142,650 | | 142,650 | |
| Loss on Sale of Equipment | 5,025 | | | | 5,025 | |
| P Smith, Trustee | | 69,000 | | (2) 69,000 | | |
| Total Debits | $ 224,250 | $ 69,000 | | | $ 170,025 | $ 54,225 |
| Credits | | | | | | |
| Allowance for Uncollectibles: (New) | 2,250 | | | | | 2,250 |
| Capital Stock | | 135,000 | | | | 135,000 |
| Retained Earnings (Deficit) | | (66,000) | | | | (66,000) |
| Sales | 153,000 | | | | 153,000 | |
| Plum Company-in Receivership | 69,000 | | (2) 69,000 | | | |
| Total Credits | $ 224,250 | $ 69,000 | $211,650 | $211,650 | 153,000 | |
| Net Loss | | | | | 17,025 | (17,025) |
| | | | | | $ 170,025 | $ 54,225 |

* $4,500 + $78,000 + $75,750 - $14,850 - $143,175 + $43,500

(1) To adjust inventory and set up cost of goods sold.

(2) To eliminate reciprocal accounts.

**Problem 10-6**

PLUM COMPANY
P. Smith, Trustee
Realization and Liquidation Account
June 1, 2009 to October 31, 2009

| | | | | | |
|---|---|---|---|---|---|
| Assets to be Realized | | | Assets Realized | | |
| Accounts Receivable (old) | $15,000 | | Accounts Receivable (old) | | $ 11,250 |
| Less: Allowance for Uncollectibles | 3,750 | $ 11,250 | Accounts Receivable (new) | | 64,500 |
| Inventory | | 142,650 | Property and Equipment | $90,600 | |
| Plant and Equipment | 90,600 | | Less: Accumulated Depreciation | 42,075 | 48,525 |
| Less: Accumulated Depreciation | 36,825 | 53,775 | | | |
| | | | Assets Not Realized | | |
| | | | Accounts Receivable (new) | 10,500 | |
| Assets Acquired | | | Less: Allowance for Uncollectibles | 2,250 | 8,250 |
| Accounts Receivable (new) | | 75,000 | | | |
| Supplementary Charges | | | Supplementary Credits | | |
| Operating Expenses | | 11,850 | Sales | | 153,000 |
| Trustee Expense | | 3,000 | | | |
| Loss on Sale of Equipment * | | 5,025 | Liabilities to be Liquidated | | |
| | | | Accounts Payable | | 143,175 |
| Liabilities Liquidated | | | | | |
| Accounts Payable | | 143,175 | Net Loss | | 17,025 |
| | | $ 445,725 | | | $ 445,725 |

* ($90,600 - $42,075) - $43,500 = $5,025

Cash

| | | | |
|---|---|---|---|
| Opening Amount | 4,500 | Operating Expenses | 11,850 |
| Sales | 78,000 | Trustee Expense | 3,000 |
| Accounts Receivable | 75,750 | Accounts Payable | 143,175 |
| Sale of Land and Equipment | 43,500 | | |
| Balance 10/31 | 43,725 | | |

**Problem 10-7**

MINER COMPANY
Statement of Affairs
May 31, 2009

| Book Value | Assets | | | Realizable Value |
|---|---|---|---|---|
| | Assets Pledged with Fully Secured Creditors: | | | |
| $ 50,000 | Notes Receivable | $39,800 | | |
| 1,200 | Accrued Interest Rec. | 1,000 | $ 40,800 | |
| | Notes Payable | 40,000 | | |
| | Accrued Interest Pay. | 800 | 40,800 | |
| 119,000 | Building | | 75,000 | |
| | Note Payable | 20,000 | | |
| | Accrued Interest Pay. | 800 | 20,800 | $ 54,200 |
| | Assets Pledged with Partially Secured Creditors: | | | |
| 13,200 | Equipment | 4,200 | | |
| | Note Payable | 10,000 | | |
| | Free Assets | | | |
| 6,000 | Cash | | | 6,000 |
| 61,000 | Accounts Receivable | | | 50,000 |
| 60,000 | Inventory | | | 30,000 |
| 1,100 | Prepaid Insurance | | | 400 |
| 8,500 | Goodwill | | | - 0 - |
| | Total Net Realizable Value | | | 140,600 |
| | Liabilities having Priority – Wages | | 6,000 | |
| | Taxes | | 2,400 | 8,400 |
| | Net Free Assets | | | 132,200 |
| | Estimated Deficiency to Unsecured Creditors | | | 53,600 |
| $ 320,000 | | | | $ 185,800 |

**Problem 10-7 (continued)**

| Book Value | Equities | | | Unsecured |
|---|---|---|---|---|
| | Liabilities Having Priority: | | | |
| $ 6,000 | Accrued Wages | $ 6,000 | | |
| 2,400 | Taxes Payable | 2,400 | $ 8,400 | |
| | | | | |
| | Fully Secured Creditors: | | | |
| 60,000 | Notes Payable | 60,000 | | |
| 1,600 | Accrued Interest Payable | 1,600 | 61,600 | |
| | | | | |
| | Partially Secured Creditors: | | | |
| 10,000 | Note Payable | | 10,000 | |
| | Equipment | | 4,200 | $ 5,800 |
| | | | | |
| | Unsecured Creditors: | | | |
| 170,000 | Accounts Payable | | | 170,000 |
| 10,000 | Notes Payable | | | 10,000 |
| | | | | |
| | Stockholders' Equity | | | |
| 110,000 | Common Stock | | | |
| ( 50,000) | Retained Earnings (Deficit) | | | |
| $ 320,000 | | | | $ 185,800 |

Deficiency Account
May 31, 2009

| Estimated Losses: | | Estimated Gains: | |
|---|---|---|---|
| Accounts Receivable | $ 11,000 | Common Stock | $ 110,000 |
| Notes Receivable | 10,400 | Retained Earnings | (50,000) |
| Inventory | 30,000 | Estimated Deficiency to | |
| Buildings | 44,000 | Unsecured Creditors | 53,600 |
| Equipment | 9,000 | | |
| Prepaid Insurance | 700 | | |
| Goodwill | 8,500 | | |
| | $113,600 | | $ 113,600 |

Estimated final dividend rate to unsecured creditors is: $132,200/$185,800 = 71.15%

**Problem 10-8**

**Part A**

DAVIS MANUFACTURING COMPANY
Statement of Affairs
March 31, 2009

| Book Value | Assets | | | Realizable Value |
|---|---|---|---|---|
| | Assets Pledged with Fully Secured Creditors: | | | |
| $ 115,500 | Accounts Receivable * | | $ 88,500 | |
| | Notes Payable | | 10,000 | $ 78,500 |
| 66,250 | Investment in Stock | | 100,000 | |
| | Note Payable | $41,000 | | |
| | Accrued Interest Pay. | 1,750 | 42,750 | 57,250 |
| | Assets Pledged with Partially Secured Creditors: | | | |
| 50,000 | Note Receivable | | 35,000 | |
| | Note Payable | 45,000 | | |
| | Accrued Interest Payable | 1,000 | 46,000 | |
| 105,000 | Land | 165,000 | | |
| 495,000 | Buildings | 260,000 | 425,000 | |
| | Mortgage Note Payable | 440,000 | | |
| | Accrued Interest Pay. | 21,250 | 461,250 | |
| | Free Assets | | | |
| 22,500 | Cash | | | 22,000 |
| 10,000 | Note Receivable | | | 10,000 |
| 1,375 | Accrued Interest on Notes Receivable | | | 1,375 |
| 140,000 | Finished Goods Inventory (1) | | | 151,200 |
| 97,500 | Work-in-Process Inventory (2) | | | 130,000 |
| 60,000 | Raw Materials Inventory (3) | | | 10,000 |
| 7,750 | Supplies Inventory | | | 1,300 |
| 3,000 | Prepaid Expenses | | | - 0 - |
| 232,500 | Equipment | | | 100,000 |
| | Total Net Realizable Value | | | 561,625 |
| | Liabilities having Priority – | Wages | $ 33,750 | |
| | | Taxes | 5,250 | 39,000 |
| | Net Free Assets | | | 522,625 |
| | Estimated Deficiency to Unsecured Creditors | | | 212,125 |
| $ 1,406,375 | | | | $ 734,750 |

* ($75,000 + ($40,500/3)) = $88,500.

**Problem 10-8 (continued)**

| Book Value | Equities | | Unsecured |
|---|---|---|---|
| | Liabilities Having Priority: | | |
| $ 33,750 | Wages Payable | $ 33,750 | |
| 5,250 | Payroll Taxes Payable | 5,250 | |
| | | | |
| | Fully Secured Creditors: | | |
| 51,000 | Notes Payable | 51,000 | |
| 1,750 | Accrued Interest Payable | 1,750 | |
| | | | |
| | Partially Secured Creditors: | | |
| 45,000 | Note Payable | 45,000 | |
| 1,000 | Accrued Interest Payable | 1,000 | |
| | | 46,000 | |
| | Notes Receivable | 35,000 | 11,000 |
| | | | |
| 440,000 | Mortgage Note Payable | 440,000 | |
| 21,250 | Accrued Interest Payable | 21,250 | |
| | | 461,250 | |
| | Land and Buildings | 425,000 | 36,250 |
| | | | |
| | Unsecured Creditors: | | |
| 587,500 | Accounts Payable | | 587,500 |
| 100,000 | Notes Payable | | 100,000 |
| | | | |
| | Stockholders' Equity | | |
| 469,000 | Common stock | | |
| (349,125) | Retained Earnings (Deficit) | | |
| $1,406,375 | | | $ 734,750 |

(1) $140,000 × 1.20 = $168,000 - $16,800 = $151,200

| | |
|---|---|
| (2) Estimated Selling Price | $145,000 |
| Less: Estimated Completion Costs Other than Raw Materials | 15,000 |
| Realizable Value | $130,000 |

(3) $60,000 - $40,000 = $20,000 × .50 = $10,000

**Problem 10-8 (continued)**

**Part B**

Deficiency Account
May 31, 2009

| Estimated Losses: | | Estimated Gains: | |
|---|---|---|---|
| Cash | $ 500 | Land | 60,000 |
| Accounts Receivable | 27,000 | Investment in Stock | 33,750 |
| Notes Receivable | 15,000 | Common Stock | 469,000 |
| Inventory * | 12,750 | Retained Earnings | (349,125) |
| Buildings | 235,000 | Estimated Deficiency to | |
| Prepaid Expenses | 3,000 | Unsecured Creditors | 212,125 |
| Equipment | 132,500 | | |
| | $425,750 | | $ 425,750 |

* ($140,000 + $97,500 + $60,000 + $7,750) – ($151,200 + $130,000 + $10,000 + $1,300)

**Part C** Estimated dividend rate per dollar of general unsecured liabilities: $522,625/$734,750 = 71.1%

# Chapter 11

## ANSWERS TO QUESTIONS

1. There might be considerable training costs in switching to IFRS because U.S. investors and accountants will need to learn how to apply and interpret IFRS. The use of IFRS might also reduce the quality of financial reports and impede comparability as the IFRS GAAP allows more judgment by management. Managers may choose to use methods that make them look better. Finally, it is not clear who will handle the enforcement of the international rules and how violators might be punished.

2. Two major projects are revenue recognition and financial statement presentation. Currently, U.S. GAAP provides significant guidance for revenue recognition, specifically with regards to some industries. It is hoped that the joint effort can lead to a joint revenue recognition standard that might eliminate guidance required for different industries. A second joint project is the financial statement presentation project. This project would provide consistent presentation of the financial statement and eliminate alternative reporting options.

3. The interest in harmonizing international accounting standards is due to many factors. Currently, most countries have their own accounting standard setting bodies resulting in a divergence of accounting practices in the world. In addition, the application of principles varies. As international trade and cross-border financing increase, it is difficult to evaluate the financial status of firms. The divergent accounting standards reduce the efficiency of the capital markets.

4. The SEC has been reluctant to accept IAS because they are more general and often provide little guidance on applying the methods. The SEC believes that the efficiency of the US markets is partly due to the high level of reporting required in the US and that any reduction in this quality would result in less efficient markets. However, over the last several years, the international rules and the U.S. rules have been converging and many of the significant differences that existed in the past have been eliminate.

5. ADRs are classified as either sponsored or unsponsored. Unsponsored ADRs are becoming less popular. These occur when a bank offers a DR program without an agreement with the issuing non-US company. Sponsored programs require an exclusive agreement between a bank and the non-US company. There are four types of sponsored ADR programs: for firms not issuing capital there are Level I and Level II ADR programs, and for firms issuing capital, there are Level III and Rule 144 A programs.

6. In a 1998 report of the FASB regarding the future of international accounting, the FASB described its vision of a successful international accounting system. The FASB stated its belief that the worldwide use of a single set of accounting standards is desirable and eventually attainable, but that the ideal outcome will result from "pursuing the overall objective of increasing international compatibility while maintaining the highest quality accounting standards in the United States." Over the last five years, the FASB has worked jointly with the IASB on issuing new standards and converging accounting standards.

7. The FASB outlined the following four points:

   a. The FASB has a leadership role to play in the evolution of the international accounting system.

   b. The FASB is willing to commit the required resources needed to ensure high quality standards while increasing the convergence and quality of standards used in different nations until the ideal outcome is achieved.

   c. The FASB will participate in establishing a quality international accounting standard-setting structure and process.

   d. The FASB recognizes that structural and procedural changes to the FASB may result, as well as potential changes in its national role.

8. Some of the major differences between U.S. GAAP and IFRS are:

   a. LIFO is acceptable in the U.S. but not allowed under IFRS.

   b. IFRS requires that the parent and subsidiaries use the same accounting methods, while in the U.S. they can use alternative methods.

   c. R&D is expensed in the U.S. while only research is expensed under IFRS and development costs are capitalized and amortized over future years.

**Business Ethics**

Business ethics solutions are merely suggestions of points to address. The objective is to raise the students' awareness of the topics, and to invite discussion. In most cases, there is clear room for disagreement or conflicting viewpoints.

1. The separation of duties is an important feature of maintaining adequate internal controls. In this case, the individual submitting invoices should not be the same individual that approves the invoices. It is appropriate for high level management to approve departures from normal procedures, but it is still necessary to have controls to address this case.
2. Unfortunately there are instances where ethics and compliance programs are designed for mid- and lower-level employees. This should not lead anyone to believe that upper-level managers are always ethical.
3. This is a very difficult issue for companies to balance. On one hand, the managers of these companies do not want stockholders and other users of the financial statements to have a mistaken belief concerning the issues at hand. If the information is not reliably disclosed, there might be an adverse impact on the firm’s stock price. But at the same time, they don’t want to appear to be hiding information. In this case, the users might believe that more significant issues are being withheld, and a negative stock price reaction might occur regardless.

### EXERCISE 11-1 Component Depreciation LO2

The following entries would be recorded assuming either U.S. GAAP or IFRS is used.

*U.S. GAAP*

| | | |
|---|---|---|
| Asset | 100,000 | |
| Cash | | 100,000 |

*IFRS*

| | | |
|---|---|---|
| Building – electrical systems | 12,000 | |
| Building – roof | 15,000 | |
| Building – Other | 73,000 | |
| Bank/Liability | | 100,000 |

The entry to record depreciation expense would be:

**Part A**: Depreciation expense

*U.S. GAAP*

| | | |
|---|---|---|
| Depreciation ($100,000/40) | 2,500 | |
| Accumulated Depreciation | | 2,500 |

**Part B:** Depreciation expense

*IFRS*

| | | | |
|---|---|---|---|
| Depreciation Building – electrical systems (12,000/20) | | 600 | |
| Depreciation Building – roof (15,000/15) | | 1,000 | |
| Depreciation Building – Other (73,000/40) | | 1,825 | |
| Accumulated Depreciation – building | | | 3,425 |

## EXERCISE 11-2

Two examples from the webpage are:

September 22, 2009

The Trustees of the IASC Foundation, the oversight body of the International Accounting Standards Board (IASB), welcomed today's statement by the Monitoring Board, a group of public capital market authorities to whom the IASC Foundation established a public accountability link. In its statement of principles, the Monitoring Board emphasised the relevance of providing high-quality financial information to ensure the confidence of capital providers in making investment decisions. The Monitoring Board also highlighted the importance of 'independence and transparency in the standard setter's due process.'

October 8, 2009

The International Accounting Standards Board (IASB) issued today an amendment to IAS 32 *Financial Instruments: Presentation*. The amendment addresses the accounting for rights issues (rights, options or warrants) that are denominated in a currency other than the functional currency of the issuer. Previously such rights issues were accounted for as derivative liabilities. However, the amendment issued today requires that, provided certain conditions are met, such rights issues are classified as equity regardless of the currency in which the exercise price is denominated.

## EXERCISE 11-3

IFAC is the global organization for the accountancy profession. It works with its 157 members and associates in 123 countries and jurisdictions to protect the public interest by encouraging high quality practices by the world's accountants. IFAC members and associates, which are primarily national professional accountancy bodies, represent 2.5 million accountants employed in public practice, industry and commerce, government, and academia. Through its independent standard-setting boards, IFAC develops international standards on ethics, auditing and assurance, education, and public sector accounting standards. It also issues guidance to support professional accountants in business, small and medium practices, and developing nations.

One example from the webpage is:

September 23, 2009

**IFAC's Bunting Calls for Global Commitment to High-Quality Financial Standards to Solve Crisis**

Mr. Bunting reminded the audience that every kind of entity needs the financial information that high-quality standards provide as we move toward recovery from the recession. Businesses in Latin America and the Caribbean often need to prove their economic viability as business partners for new opportunities in the Middle East and China, or for ongoing ones in this hemisphere. Governments need to confirm their fiscal health for the capital markets or for membership in regional economic organizations.

**EXERCISE 11-4 IFRS Balance Sheet** LO2

**A.** *What order are assets listed on the balance sheet?* The assets are listed in order of increasing liquidity. The most liquid asset is listed last (cash).

**B.** *Comment on other differences (IFRS relative to U.S. GAAP) that you might notice on the balance sheet.*
Liabilities and equity are also reversed using IFRS. Equity accounts are listed above the liability accounts. In addition, issue capital is commonly called common stock in the U.S. Treasury stock is usually the last item listed in stockholders' equity, but that is not the case under IFRS.

**C**. *What is the current ratio for the year's ending March 31, 2006 and 2007?*

2006 Current ratio = $\frac{8{,}493}{8{,}091}$ = 1.0496

2007 Current ratio = $\frac{8{,}434}{8{,}160}$ = 1.0336

The current ratio has decreased slightly.

**D.** *What is the ratio of long-term debt to equity for the year's ending March 31, 2006 and 2007?*

2006 long-term debt to equity ratio = $\frac{7{,}826}{7{,}853}$ = 0.9965

2007 long-term debt to equity ratio = $\frac{7{,}419}{8{,}412}$ = 0.8819

2006 Non-current liabilities to equity ratio = $\frac{10{,}535}{7{,}853}$ = 1.3415

2007 Non-current liabilities to equity ratio = $\frac{10{,}098}{8{,}412}$ = 1.2004

Both ratios indicate a decreasing leverage ratio.

**E**. *Are there any typical balance sheet ratios that can't be computed using the IFRS-based financial statement?*

No, all the same balance sheet ratios can be computed.

**PROBLEM 11-1** LO2

**A.** *Are expenditures reported on BP's income statement reported by function or by nature of the expense? Be specific. Do you think that this format is more or less useful for users of the financial statements?*

BP's income statement lists expenses by nature. This can be determined by examining the expenses. Instead of listing cost of goods sold, the expenses are listed as purchases, production and manufacturing expenses, and depreciation expenses.

**B**. *On the BP income statement, what is the earnings from affiliates usually referred to in the U.S.?*

In the U.S., investments in affiliates are typically equity method investments where the investor owns between 20 and 50% of the outstanding stock.

**C**. *On ExxonMobil's income statement, are the expenses listed by function or by nature?*

ExxonMobil's income statement discloses expenses using a combination of function and nature. This can be determined by examining the expenses. Some expenses are listed by the function, such as selling, general and administration expense while other expenses such as manufacturing costs are expensed by nature (such as crude oil purchases, production and manufacturing expenses, and depreciation).

**D.** *Compare the performance of BP relative to ExxonMobil. Is it easy to compare the numbers from companies using IFRS to companies using U.S. GAAP?*

| | BP | | | ExxonMobil | | |
|---|---|---|---|---|---|---|
| | 2008 | 2007 | Growth | 2008 | 2007 | |
| Total Revenues | 367,053 | 291,438 | 25.9% | 477,359 | 404,552 | 18.0% |
| Profit for the year | 21,666 | 21,169 | 2.3% | 45,220 | 40,610 | 11.4% |
| Profit/Revenues | 5.9% | 7.3% | | 9.5% | 10.0% | |

Looking at the growth in revenues and the bottom line profit margin percentage (profit divided by revenues), ExxonMobil's revenues grew at 18% resulting in an 11.4% growth in profits. BP's revenues grew at almost 26%, which resulted in a modest 2.3% growth in net income. Because the two companies prepare the income statement prepared using either the nature or the function of the expenses, direct comparisons of certain items, such as gross margin, are more difficult without extensive reading of the footnotes.

**E**. *Does it matter that BP is using FIFO and ExxonMobil is using LIFO for inventory? The LIFO reserve decreased by $15.4 billion dollars in 2008.*

Because the LIFO reserve dropped, reported income using LIFO will exceed the amount of income reported using FIFO. The user would need to determine if the change in the LIFO reserve was caused by falling prices or merely a reduction in inventory levels. This can have a significant impact on how you might interpret the results of operations for ExxonMobil.

## PROBLEM 11-2 IFRS Income Statement and Terminology Differences LO2

**A.** *On the income statement, the first two lines in Unilever's income statement are Turnover and then Operating profit. What does the term 'Turnover' mean? Which costs are typically reported between 'Turnover' and operating profit?*

The term 'turnover' is a term that is used internationally to indicate revenues or sales. In the financial statement for Unilever, the income statement simply listed 'turnover' and then operating profit on the next line. If you examine the footnotes, you would see that expenses not listed as a line item on the income statement (items between sales and operating margin) include cost of sales, distribution and selling costs, and administration expenses.

**B.** *How useful is Unilever's income statement presentation considering that this information about expenses is disclosed in footnote 3 rather than being reported on the face of the income statement?*

The answer to this question depends on whether you believe that important line items should be disclosed on the face of the income statement versus disclosing the detail in a footnote to the financial statements. If companies only delivered summary financial statements to the users, this detail (the amount of off-balance sheet payments) often might not be disclosed. Information concerning the change in gross margin provides useful information to users about the growth in inventory costs relative to the change in revenues.

## PROBLEM 11-3 Illustrated Financial Statements

**No solution is provided for this problem.**

## Problem 11-4 Financial Statement Presentation

| BUSINESS | 2010 | 2011 |
|---|---|---|
| ***Operating assets and liabilities*** | | |
| *Short-term* | | |
| Accounts Receivable | 97,200 | 90,600 |
| Allowance for doubtful accounts | (14,400) | (12,600) |
| Inventory | 518,400 | 562,800 |
| Prepaid insurance | 24,600 | 21,600 |
| *Short-term assets* | 625,800 | 662,400 |
| Accounts Payable - trade | (195,600) | (178,800) |
| Accrued interest payable | (11,400) | (16,800) |
| *Short-term liabilities* | (207,000) | (195,600) |
| *Long-term* | | |
| Plant & equipment | 735,600 | 780,000 |
| Accumulated depreciation | (120,000) | (126,000) |
| Net long-term assets | 615,600 | 654,000 |
| | | |
| ***Net operating assets*** | **1,034,400** | **1,120,800** |
| ***Investing assets*** | | |
| *Short-term* | | |
| Investment (trading) | 16,800 | 20,400 |
| *Long-term* | | |
| Investments (equity method) | 16,800 | 18,000 |
| Net investing assets | 33,600 | 38,400 |
| | | |
| ***Net business assets*** | **1,068,000** | **1,159,200** |
| **FINANCING** | | |
| ***Financing assets*** | | |
| *Short-term* | | |
| Cash | 49,200 | 40,800 |
| ***Financing liabilities*** | | |
| *Short-term* | | |
| Dividend payable | (24,000) | (19,200) |
| Short-term loan payable | (66,000) | (84,000) |
| *Short-term liabilities* | (90,000) | (103,200) |
| *Long-term* | | |
| Bond payable, net of discount | (120,000) | (174,000) |
| | | |
| ***Net financing liabilities*** | **(160,800)** | **(236,400)** |

**Problem 11-4** **(continued)**

| | | | |
|---|---|---|---|
| **INCOME TAXES** | | | |
| *Short-term* | | | |
| | Income taxes payable | (19,200) | (13,200) |
| *Long-term* | | | |
| | Deferred tax liability | (66,000) | (45,600) |
| | ***Net income tax liability*** | **(85,200)** | **(58,800)** |
| | | | |
| | **NET ASSETS** | **822,000** | **864,000** |
| **EQUITY** | | | |
| | Common Stock & paid in capital | 264,000 | 264,000 |
| | Retained Earnings | 582,000 | 606,000 |
| | Less: Treasury stock | (24,000) | (6,000) |
| | **TOTAL EQUITY** | **822,000** | **864,000** |

| | | |
|---|---|---|
| Accounts payable | 195,600 | 178,800 |
| Dividends payable | 24,000 | 19,200 |
| Accrued interest payable | 11,400 | 16,800 |
| Income taxes payable | 19,200 | 13,200 |
| Short-term loan payble | 66,000 | 84,000 |
| Bond payable | 135,000 | 186,000 |
| Discount on bond payable | (15,000) | (12,000) |
| Deferred taxes | 66,000 | 45,600 |
| Common stock | 108,000 | 108,000 |
| Capital-in-excess of par | 156,000 | 156,000 |
| Retained earnings | 582,000 | 606,000 |
| Less: treasury stock | (24,000) | (6,000) |
| Total liabilities and equity | 1,324,200 | 1,395,600 |

The solution listed above is in agreement with the discussion paper issued by the FASB in October 2008. However, in a subsequent meeting (November 2009), the FASB changed some of the aspects of the draft. The following are the changes that the FASB proposed to the original discussion paper on October 2008.

1. Equity will no longer be a separate category, but will be included within the Financing Section.
2. Cash and short-term financial assets (or financial liabilities) used as a substitute for cash will be included in the business section (rather than reported in the financing section).

See note at the end of the solutions manual regarding other changes made by the FASB.

PROBLEM 11-5 Financial Statement Presentation –Statement of Comprehensive Income

**Statement of Comprehensive Income**
**For the year ended 2011**

| | | |
|---|---|---|
| **BUSINESS** | | |
| ***Operating:*** | | |
| Sales | | $800,000 |
| Cost of Goods Sold | $350,000 | |
| Total cost of goods sold | | 350,000 |
| Gross margin | | 450,000 |
| Selling Expenses: | | |
| Bad debt expense | 18,000 | |
| Total selling expense | | 18,000 |
| General and administration Expenses: | | |
| Wage expense | 90,000 | |
| Depreciation expense | 40,000 | |
| Other expense | 12,000 | |
| Total general and administration expense | | 142,000 |
| Other operating expense (income) | | |
| Loss on sale of equipment | 10,000 | |
| Gain on bond retirement | (14,000) | |
| Total other operating expense (income) | | (4,000) |
| ***Operating income*** | | **294,000** |
| ***Investing:*** | | |
| Equity income | 7,000 | |
| *Investment income* | | 7,000 |
| ***Business Income*** | | **301,000** |
| **FINANCING*:*** | | |
| Interest expense | 36,000 | |
| *Financing expenses* | | 36,000 |
| **INCOME TAXES*:*** | | |
| Income Tax Expense | | 106,000 |
| ***Net Income*** | | **159,000** |
| **OTHER COMPREHENSIVE INCOME*:*** | | |
| Unrealized loss on available for sale securities | | (11,000) |
| ***Total Comprehensive Income*** | | $148,000 |

PROBLEM 11-6 **Operating and Capital Leases** LO4

1. *Under existing U.S. GAAP, what is the amount of lease liability recorded on the balance sheet at January 1, 2011?*

In the U.S., only the present value of capital leases is recorded as a liability. Therefore, $18,954 is the amount of the lease liability reported on the balance sheet. In addition, the capitalized amount of the leased asset would also be recorded in property, plant, and equipment. (This amount cannot be determined in this problem.)

2. *If the proposed changes in accounting for leases become authoritative, what would be the amount of lease liability recorded on the balance sheet at January 1, 2011?*

The present value of both the capital lease payments and the operating lease payments would be recorded as liabilities on the balance sheet under the proposed new rules. Assuming that the operating lease has a lease term equal to its useful life, the present value of the operating lease (with a zero salvage value) would be equal to its fair value. Thus the total liability reported on the balance sheet would be $33,875 rather than $18,954 (or $18,954 + $14,921).

3. *Which approach (part 1 or part 2) do you think provides more relevant information to the users of the financial statements?*

Most users believe that if the lease payments are non-cancelable that they represent fixed payments that the firm is obligated to pay. Thus they should be recorded on the balance sheet at the present value of the payments. On the other hand, users might not care if the information is adequately disclosed in the footnotes.

**Professor Notes**

**FASB Financial Statement Presentation**

The solution listed above is in agreement with the discussion paper issued by the FASB in October 2008. However, in a subsequent meeting (November 2009), the FASB changed some of the aspects of the draft. The following are the changes that the FASB proposed to the original discussion paper on October 2008.

1. Equity will no longer be a separate category, but will be included within the Financing Section.

2. Cash and short-term financial assets (or financial liabilities) used as a substitute for cash will be included in the business section (rather than reported in the financing section).

3. Replace the reconciliation schedule (mentioned in chapter 11) with an analysis of the changes in balances of all significant asset and liability line items. Each line item analysis should distinguish the following components:

   a. Changes due to cash inflows and cash outflows

b. Changes resulting from noncash (accrual) transactions that are repetitive and routine in nature (for example, credit sales, wages, material purchases)
c. Changes resulting from noncash transactions or events that are nonroutine or nonrepetitive in nature (for example, acquisition or disposition of a business)
d. Changes resulting from accounting allocations (for example, depreciation)
e. Changes resulting from accounting provisions/reserves (for example, bad debts, obsolete inventory)
f. Changes resulting from remeasurements

4. Present information about remeasurements in the financial statements. FASB would require disaggregation of remeasurements on the face of the statement of comprehensive income. Remeasurements would be defined as an amount recognized in comprehensive income that reflects the effects of a change in the carrying amount of an asset or liability to a current price or value (or to an estimate of a current price or value).

# CHAPTER 12

## ANSWERS TO QUESTIONS

1. An exchange rate is the ratio between a unit of one currency and the amount of another currency for which that unit can be exchanged at a particular time. A direct quotation is one in which the exchange rate is quoted in terms of how many units of the domestic currency can be converted into one unit of foreign currency. An indirect quotation is stated in terms of converting one unit of domestic currency into units of foreign currency.

2. When a transaction is to be settled in a foreign currency, a change in the exchange rate increases or decreases the expected cash flow to be received or paid when the account is settled.

3. (1) Transaction Date -- at this date, the transaction is recorded. If the transaction is stated in foreign currency units, the exchange rate prevailing at this date is used to convert the foreign currency units to domestic units.
   (2) Balance Sheet Date -- at this date, recorded dollar balances (or other domestic currency, if applicable) representing receivables or payables that are to be settled in foreign currency units are revalued at the exchange rate on this date. The adjustment is recorded as a transaction gain or loss.
   (3) Settlement Date -- the foreign currency received or paid is converted into domestic currency at the spot rate. A difference between the conversion and the carrying value of the receivable or payable is a transaction gain or loss.

4. A transaction gain (loss) related to an unsettled receivable should be included in the determination of net income for the current period.

5.

| | | |
|---|---|---|
| Receivable recorded at the transaction date | 100,000 × \$.009 | \$900 |
| Receivable recorded at the balance sheet date | 100,000 × \$.006 | 600 |
| Transaction loss | | \$300 |

Receivable is reported at \$600 in the balance sheet.

6. A purchase (sale) is viewed as a transaction separate from the method of settlement. Once the purchase (sale) is made, a firm has the choice of settling at the transaction date, thus incurring no gain or loss from subsequent changes in the exchange rate; or purchasing a forward contract, and also avoiding a gain or loss from holding foreign currency commitments. The choice of settlement rests with management, and their decision should have no effect on the valuation of a purchase or sales transaction.

7. A forward exchange contract is an agreement to buy or sell foreign currency units at a particular time for an agreed upon exchange rate. This rate will usually be the forward rate at the time the contract is entered into and any difference between the forward rate and the spot rate is amortized to income over the life of the contract.

8. A forward contract to buy (sell) foreign currency has an opposite effect on income compared to the gain or loss associated with translation of a payable (receivable) to be settled in the foreign currency units.
   In other words, as the exchange rate fluctuates, the forward contract will gain or lose the same amount as the payable or receivable will lose or gain. Therefore, no net transaction gain or loss will be incurred.

9. The transaction must be designated as, and is effective as, a hedge of a foreign currency commitment, and the foreign currency commitment is firm.

10. Forward contracts are valued using changes in forward rates and generally any gains or losses are recognized in the same period as changes in value of hedged item (Fair Value hedges). Gains or losses in Cash Flow hedges are deferred until the hedged item is included in income. A forward contract held for speculation is recorded at the transaction date using the forward rate. There is no separate accounting for a discount or premium. Subsequent valuations (at balance sheet dates) are based on the forward rate available for the remaining life of the forward contract.

11. Foreign currency exchange gains (losses) from hedging a forecasted transaction are deferred and included in the determination of the foreign currency transaction at transaction date.

12. A put option is a contract that gives the holder the right to sell an asset (such as a unit of foreign currency) at a specified price within a specified time period. Firms use these options to protect against expected unfavorable changes in exchange rates. If a company has a contract to sell inventory and is expected to receive a foreign currency, the company can use the option to sell the foreign currency received from the sale to deliver on the option, thus locking into a foreign exchange rate.

13. A ***derivative instrument*** may be defined as a financial instrument that by its terms at inception or upon occurrence of a specified event, provides the holder (or writer) with the right (or obligation) to participate in some or all of the price changes of another *underlying* value of measure, but does not require the holder to own or deliver the underlying value of measure. Thus its value is *derived* from the underlying value of measure. In *SFAS No. 133*, the FASB identified the following as keystones for the accounting for derivative instruments:

    * Derivative instruments represent rights or obligations that meet the definitions of assets or liabilities and should be reported in financial statements.
    * Fair value is the most relevant measure for financial instruments and the only relevant measure for derivative instruments.
    * Only items that are assets or liabilities should be reported as such in the balance sheet.
    * Special accounting for items designated as being hedged should be provided only for qualifying items, as demonstrated by an assessment of the expectation of effective offsetting changes in fair values or cash flows during the term of the hedge for the risk being hedged.

14. Deivative instruments can be divided into two broad categories:
    a) Forward-based derivatives, such as forwards, futures, and swaps, in which either party can *potentially* have a favorable or unfavorable outcome, but not both simultaneously (e.g., both will not simultaneously have favorable outcomes).

b) Option-based derivatives, such as interest rate caps, option contracts, and interest rate floors, in which only *one* party can potentially have a favorable outcome and it agrees to a premium at inception for this potentiality; the other party is paid the premium, and can potentially have only an unfavorable outcome.

15. The FASB allows deferral of the income statement recognition of the gains and losses on forecasted transactions if certain criteria are met. Like other gains and losses that are excluded from the income statement, they must be included as components of "other comprehensive income" and reported in the stockholders' equity section of the balance sheet. The criteria for this treatment include:

- The forecasted transaction is specifically identifiable at the time of the designation as a single transaction or a group of individual transactions.
- The forecasted transaction is probable and it presents exposure to price changes that are expected to affect earnings and cause variability in cash flows.
- The forecasted transaction involves an exchange with an outside (unrelated) party (intercompany foreign currency transactions are excluded)
- The forecasted transaction does not involve a business combination.

They are reclassified into earnings when the forecasted transaction occurs and the item is recorded in earning.

**Business Ethics**

Business ethics solutions are merely suggestions of points to address. The objective is to raise the students' awareness of the topics, and to invite discussion. In most cases, there is clear room for disagreement or conflicting viewpoints.

1. Stock options, in theory, are used to create incentives for the firm's executives to increase operating performance. The practice of backdating options defeats this purpose. The point of backdating options is to avoid issuing 'in the money' stock options which would have had both accounting and tax consequences not favorable to the firm. Backdating avoids accounting recognition.

2. Executives always have the right not to exercise options if they feel that there is an ethical issue. However, if the proper disclosures are followed (which is rarely the case), then back-dating options is not illegal under current laws.

## ANSWERS TO EXERCISES

### Exercise 12-1

| | | | |
|---|---|---|---|
| Apr. 3 | Purchases | 11,520 | |
| | Accounts Payable (1,600,000 × $.0072) | | 11,520 |
| 5 | Accounts Receivable | 2,800 | |
| | Sales | | 2,800 |
| 9 | Accounts Receivable | 16,800 | |
| | Sales | | 16,800 |
| 11 | Purchases | 25,000 | |
| | Accounts Payable (801,282 × $.0312) | | 25,000 |
| 16 | Accounts Payable (1,000,000 × $.0072) | 7,200 | |
| | Transaction Gain | | 500 |
| | Cash (1,000,000 × $.0067) | | 6,700 |
| 18 | Accounts Payable | 25,000 | |
| | Transaction Loss | 4,487 | |
| | Cash (801,282 × $.0368) | | 29,487 |
| 22 | Cash | 16,800 | |
| | Accounts Receivable | | 16,800 |
| 30 | Accounts Payable (600,000 × $.0072) | 4,320 | |
| | Transaction Loss | 360 | |
| | Cash (600,000 × $.0078) | | 4,680 |

### Exercise 12-2

| | | | | |
|---|---|---|---|---|
| **Part A** | Dec 10 | Accounts Receivable (8,541,000/365) | 23,400 | |
| | | Sales | | 23,400 |
| | 12 | Raw Materials Inventory (Purchases) | 19,550 | |
| | | Accounts Payable (500,000 × $.0391) | | 19,550 |
| **Part B** | Dec 31 | Transaction Loss | 510 | |
| | | Accounts Receivable<br>[(8,541,000 × $.00268 = $22,890) – $23,400] | | 510 |
| | 31 | Accounts Payable | 2,000 | |
| | | Transaction Gain [(500,000 × $.0351 = $17,550) - $19,550] | | 2,000 |

## Exercise 12-2 (continued)

| | | | | | |
|---|---|---|---|---|---|
| **Part C** | Jan | 10 | Cash (8,541,000 × $.00320) | 27,331 | |
| | | | Accounts Receivable ($23,400 - $510) | | 22,890 |
| | | | Transaction Gain | | 4,441 |
| | | | | | |
| | | 10 | Transaction Loss | 2,350 | |
| | | | Accounts Payable ($19,550 - $2,000) | 17,550 | |
| | | | Cash (500,000 × $.0398) | | 19,900 |
| | | | | | |
| **Part D** | Dec | 10 | Accounts Receivable | 23,400 | |
| | | | Sales | | 23,400 |
| | | | | | |
| | | 31 | No entry required. | | |
| | | | | | |
| | Jan | 10 | Cash | 23,400 | |
| | | | Accounts Receivable | | 23,400 |

| **Exercise 12-3** | **Exercise 12-4** | **Exercise 12-5** |
|---|---|---|
| 1.d 2.d 3.d 4.a 5.b | 1.d 2.b 3.c 4.a | 1.b 2.b 3.d 4.c |

## Exercise 12-6

| **Part A** | Accounts Receivable | Amount |
|---|---|---|
| | SLS, Inc. (denominated in $) | $200,000 |
| | TNT, Ltd. (130,000 × $1.482) | 192,660 |
| | Accounts Payable | |
| | AGT (600,000 × $.460) | 276,000 |
| | SDS, Ltd. (denominated in $) | $160,000 |

| **Part B** | Receivable | | Payable | |
|---|---|---|---|---|
| | SLS, Inc. | TNT, Ltd. | AGT | SDS, Ltd. |
| Transaction date | $200,000 | $195,780* | $294,000** | $160,000 |
| Balance sheet date | 200,000 | 192,660 | 276,000 | 160,000 |
| Transaction gain (loss) | $ 0 | $ ( 3,120) | $ 18,000 | $ 0 |

* 130,000 × $1.506 = $195,780
** 600,000 × $0.490 = $294,000

## Exercise 12-7

| | | | | |
|---|---|---|---|---|
| **Part A** | Oct. 2 | Accounts Receivable (300,000 × $.4737) | 142,110 | |
| | | Service Revenue | | 142,110 |
| | | | | |
| | 2 | Dollars Receivable from Exchange Dealer | 141,900 | |
| | | FC Payable to Exchange Dealer | | 141,900 |
| | | (300,000 × $.473= $141,900) | | |
| | | | | |
| | Dec 31 | Accounts Receivable | 4,740 | |
| | | Transaction Gain [(300,000 × $.4895 = 146,850) - 142,110] | | 4,740 |
| | | | | |
| | 31 | Transaction Loss [(300,000 × $.4810 = $144,300) - $141,900] | 2,400 | |
| | | FC Payable to Exchange Dealer | | 2,400 |
| | | | | |
| | Feb 1 | Accounts Receivable | 1,650 | |
| | | Transaction Gain [(300,000 × $.4950 = $148,500) - $146,850] | | 1,650 |
| | | | | |
| | 1 | Transaction Loss [(300,000 × $.4950 = $148,500) - $144,300] | 4,200 | |
| | | FC Payable to Exchange Dealer | | 4,200 |
| | | | | |
| | Feb. 1 | Investment in FC | 148,500 | |
| | | Accounts Receivable (300,000 × $.4950) | | 148,500 |
| | | | | |
| | Feb. 1 | Cash | 141,900 | |
| | | FC Payable to Exchange Dealer | 148,500 | |
| | | Investment in FC | | 148,500 |
| | | Dollars Receivable from Exchange Dealer | | 141,900 |

| | | 2008 | 2009 |
|---|---|---|---|
| **Part B** | 1. Revenue | $142,110 | $ 0 |
| | Transaction gain (loss) related to the exposed receivable balance | 4,740 | 1,650 |
| | Transaction gain (loss) related to the forward contract | (2,400) | (4,200) |
| | Effect on net income | $144,450 | $(2,550) |

2. Cumulative effect on net income: $144,450 - $2,550 = $141,900

3. Cash received = $141,900

**Exercise 12-8**

| | | | | |
|---|---|---|---|---|
| Nov. | 1 | FC Receivable from Exchange Dealer | 131,700 | |
| | | Dollars Payable to Exchange Dealer | | 131,700 |
| | | (5,000,000 × $.02634 = $131,700) | | |
| Dec | 31 | FC Receivable from Exchange Dealer | 5,050 | |
| | | Exchange Gain | | 5,050 |
| | | [(5,000,000 × $.02735 = $136,750) - $131,700] | | |
| | 31 | Exchange loss | 5,050 | |
| | | Firm Commitment | | 5,050 |
| May | 1 | Exchange loss | 7,200 | |
| | | FC Receivable from Exchange Dealer | | 7,200 |
| | | [(5,000,000 × $.02591 = $129,550)- $136,750] | | |
| | 1 | Firm Commitment | 7,200 | |
| | | Exchange Gain | | 7,200 |
| | 1 | Dollars Payable to Exchange Dealer | 131,700 | |
| | | Investment in FC | 129,550 | |
| | | FC Receivable from Exchange Dealer | | 129,550 |
| | | Cash | | 131,700 |
| | 1 | Merchandise Inventory | 131,700 | |
| | | Investment in FC | | 129,550 |
| | | Firm commitment | | 2,150 |

Alternative entries

| | | | | |
|---|---|---|---|---|
| Nov. | 1 | No Entry is made | | |
| Dec | 31 | FC contract | 5,050 | |
| | | Exchange Gain | | 5,050 |
| | | [(5,000,000 × $.02735 = $136,750) - $131,700] | | |
| | 31 | Exchange loss | 5,050 | |
| | | Firm Commitment | | 5,050 |
| May | 1 | Exchange loss | 7,200 | |
| | | FC Contract | | 7,200 |
| | | [(5,000,000 × $.02591 = $129,550)- $136,750] | | |
| | 1 | Firm Commitment | 7,200 | |
| | | Exchange Gain | | 7,200 |
| | | FC Contract | 2,150 | |
| | | Cash | | 2,150 |
| | 1 | Investment in FC | 129,550 | |
| | | Cash | | 129,550 |

| | | | | |
|---|---|---|---|---|
| | 1 | Merchandise Inventory | 131,700 | |
| | | Investment in FC | | 129,550 |
| | | Firm Commitment | | 2,150 |

**Exercise 12-9**

| | | | | |
|---|---|---|---|---|
| Nov. | 1 | Dollars Receivable from Exchange Dealer | 457,650 | |
| | | FC Payable to Exchange Dealer (900,000 × $.5085) | | 457,650 |
| Dec. | 31 | FC Payable to Exchange Dealer | 8,010 | |
| | | Transaction Gain [(900,000 × $.4996 = $449,640) - $457,650] | | 8,010 |
| Jan. | 30 | FC Payable to Exchange Dealer | 15,300 | |
| | | Transaction Gain [(900,000 × $.4826 = $434,340) - $449,640] | | 15,300 |
| | 30 | Investment in FC | 434,340 | |
| | | Cash | | 434,340 |
| | 30 | Cash | 457,650 | |
| | | FC Payable to Exchange Dealer | 434,340 | |
| | | Dollars Receivable from Exchange Dealer | | 457,650 |
| | | Investment in FC | | 434,340 |

**Exercise 12-10**

| | | | | |
|---|---|---|---|---|
| Nov. | 1 | FC Receivable from Exchange Dealer | 457,650 | |
| | | Dollars Payable to Exchange Dealer (900,000 × $.5085) | | 457,650 |
| Dec. | 31 | Transaction Loss | 8,010 | |
| | | FC Receivable from Exchange Dealer | | 8,010 |
| | | [(900,000 × $.4996 = $449,640) - $457,650] | | |
| Jan. | 30 | Transaction Loss | 15,300 | |
| | | FC Receivable from Exchange Dealer | | 15,300 |
| | | [(900,000 × $.4826 = $434,340) - $449,640] | | |
| | 30 | Investment in FC | 434,340 | |
| | | Dollars Payable to Exchange Dealer | 457,650 | |
| | | Cash | | 457,650 |
| | | FC Receivable from Exchange Dealer | | 434,340 |
| | 30 | Cash | 434,340 | |
| | | Investment in FC | | 434,340 |

**Exercise 12-11**

| | | | |
|---|---|---|---|
| April 1 | Equipment | 188,880 | |
| | Notes Payable (120,000 × $1.574) | | 188,880 |
| June 30 | Interest Expense | 5,616 | |
| | Cash (3,600 × $1.560) | | 5,616 |
| Sept. 30 | Interest Expense | 5,494 | |
| | Cash (3,600 × $1.526) | | 5,494 |
| Dec. 31 | Interest Expense | 5,393 | |
| | Cash (3,600 × $1.498) | | 5,393 |
| 31 | Notes Payable | 9,120 | |
| | Transaction Gain [(120,000 × $1.498 = $179,760) - $188,880] | | 9,120 |
| Mar. 31 | Transaction Loss | 4,800 | |
| | Notes Payable [(120,000 × $1.538 = $184,560) - $179,760] | | 4,800 |
| 31 | Interest Expense (3,600 × $1.538) | 5,537 | |
| | Notes Payable | 184,560 | |
| | Cash (123,600 × $1.538) | | 190,097 |

## Exercise 12-12

1. 50,000,000 × $.0269 = $1,345,000
2. 50,000,000 × $.0291 = $1,455,000
3. 50,000,000 × ($.0269 - $.0239) = 150,000 premium (forward rate is greater than spot rate)
4.

| | | | |
|---|---|---|---|
| Valuation - 11/15/2008 | 50,000,000 × $.0239 = | | $1,195,000 |
| 12/31/2008 | 50,000,000 × $.0224 = | | 1,120,000 |
| Transaction gain - 2008 | | $ 75,000 | |
| | | | |
| Valuation - 12/31/2008 | | | $1,120,000 |
| 1/15/2009 | 50,000,000 × $.0291 = | | 1,455,000 |
| Transaction loss - 2009 | | $ 335,000 | |

5. 2008 - Transaction loss $75,000

| | | |
|---|---|---|
| 50,000,000 ($.0269) | = | $1,345,000 |
| 50,000,000 ($.0254) | = | 1,270,000 |
| Transaction loss | | $ 75,000 |

2009 - Transaction gain $185,000

| | | |
|---|---|---|
| 50,000,000 ($.0254) | = | $1,270,000 |
| 50,000,000 ($.0291) | = | 1,455,000 |
| Transaction gain | | $185,000 |

## Exercise 12-13

### Part A

| | | | |
|---|---|---|---|
| Dec. 1 | FC Receivable from Exchange Dealer | 101,000 | |
| | Dollars Payable to Exchange Dealer (100,000 × $1.01) | | 101,000 |
| | | | |
| Dec. 31 | FC Receivable from Exchange Dealer | 1,000 | |
| | Foreign Exchange Gain – Other Comprehensive Income | | 1,000 |
| | [100,000 × ($1.01- $1.02)] | | |
| | | | |
| Jan. 31 | FC Receivable from Exchange Dealer | 2,000 | |
| | Foreign Exchange Gain – Other Comprehensive Income | | 2,000 |
| | [100,000 × ($1.02- $1.04)] | | |
| | | | |
| | Investment in FC | 104,000 | |
| | Dollars Payable to Exchange Dealer | 101,000 | |
| | Cash | | 101,000 |
| | FC Receivable from Exchange Dealer | | 104,000 |
| | | | |
| | Equipment | 104,000 | |
| | Investment in FC | | 104,000 |

### Part B

Reclassification occurs when the asset is depreciated.

**Exercise 12-14**

Alternative entries are presented assuming the forward contract is not formally recorded on the books.

| | | | |
|---|---|---|---|
| Dec. 1 | Dollars Receivable from Exchange Dealer (1,000,000 × $.0948) | 94,800 | |
| | FC Payable to Exchange Dealer | | 94,800 |
| | | | |
| Dec. 31 | FC Payable to Exchange Dealer | 400 | |
| | Foreign Exchange Gain | | 400 |
| | [1,000,000 × ($.0948 - $.0944)] | | |
| | | | |
| | Foreign Exchange Loss | 400 | |
| | Firm Commitment | | 400 |
| | [1,000,000 × ($.0948 - $.0944)] | | |
| | | | |
| March 1 | Foreign Exchange Loss | 300 | |
| | FC Payable to Exchange Dealer | | 300 |
| | [1,000,000 × ($.0944 - $.0947)] | | |
| | | | |
| | Firm Commitment | 300 | |
| | Foreign Exchange Gain | | 300 |
| | [1,000,000 × ($.0944 - $.0947)] | | |
| | | | |
| | Investment in FC | 94,700 | |
| | Firm Commitment | 100 | |
| | Sales (1,000,000 × .0948) | | 94,800 |
| | | | |
| | Cash | 94,800 | |
| | FC Payable to Exchange Dealer | 94,700 | |
| | Investment in FC | | 94,700 |
| | Dollars Receivable from Exchange Dealer | | 94,800 |
| | | | |
| | Cost of Goods Sold (Cost of Equipment Sold) | 40,000 | |
| | Inventory | | 40,000 |

Alternative entries assuming the forward contract is not formally recorded.

| | | | |
|---|---|---|---|
| Dec. 1 | No Entry | | |
| | | | |
| Dec. 31 | Foreign exchange contract | 400 | |
| | Foreign Exchange Gain | | 400 |
| | [1,000,000 × ($.0948 - $.0944)] | | |
| | | | |
| | Foreign Exchange Loss | 400 | |
| | Firm Commitment | | 400 |
| | [1,000,000 × ($.0948 - $.0944)] | | |

**Exercise 12-14 continued**

| | | | |
|---|---|---|---|
| March 1 | Foreign Exchange Loss | 300 | |
| | Foreign exchange contract | | 300 |
| | [1,000,000 × ($.0944 - $.0947)] | | |
| | Firm Commitment | 300 | |
| | Foreign Exchange Gain | | 300 |
| | [1,000,000 × ($.0944 - $.0947)] | | |
| | Cash | 100 | |
| | Foreign exchange contract | | 100 |
| | Cash | 94,700 | |
| | Firm Commitment | 100 | |
| | Sales (1,000,000 × $.0948) | | 94,800 |
| | Cost of Goods Sold (Cost of Equipment Sold) | 40,000 | |
| | Inventory | | 40,000 |

**Exercise 12-15**

**Part A**. If the Krona weakens relative to the dollar, it means that the firm would receive fewer dollars for each Krona received and an exchange loss would be recognized.

**Part B**. A put option is used when foreign currency to be received in the future needs to be sold and converted into dollars.

**Part C**.

| | | | |
|---|---|---|---|
| June 1 | Option to sell Kronas | 15,000 | |
| | Cash | | 15,000 |
| August 1 | Foreign Exchange Loss | 12,000 | |
| | Option to sell Kronas | | 12,000 |
| | To adjust the option to its intrinsic value of $3,000<br>[$15,000 – (2,000,000 × ($.1035 - $.1020))] or $15,000 – $3,000 = $12,000. | | |
| | Firm Commitment | 12,000 | |
| | Foreign Exchange Gain | | 12,000 |
| | Investment in FC (2,000,000 × $.1020) | 204,000 | |
| | Firm Commitment | | 12,000 |
| | Revenues | | 192,000 |
| | Cost of Goods Sold (cost of equipment sold) | 100,000 | |
| | Inventory | | 100,000 |
| | Cash (2,000,000 × $.1035) | 207,000 | |
| | Option to sell Kronas (intrinsic value) | | 3,000 |
| | Investment in FC (2,000,000 × $.1020) | | 204,000 |

Note that Revenues are equal to (2,000,000 × $.1035) less the cost of the option of $15,000, or $207,000 less $15,000 or $192,000.

## ANSWERS TO PROBLEMS

### Problem 12-1

| | | | | | |
|---|---|---|---|---|---|
| **Part A** | Sept. | 5 | Accounts Receivable | 19,580 | |
| | | | Sales (17,341 × $1.1291) | | 19,580 |
| | | 5 | Cost of Goods Sold | 9,500 | |
| | | | Inventory (10 × $950) | | 9,500 |
| | | 9 | Raw Materials Inventory | 20,522 | |
| | | | Accounts Payable (12,200 × $1.6821) | | 20,522 |
| | | 14 | Accounts Receivable | 23,240 | |
| | | | Sales (160,274 × $.1450) | | 23,240 |
| | | 14 | Cost of Goods Sold | 11,640 | |
| | | | Inventory (12 × $970) | | 11,640 |
| | | 30 | Transaction Loss (Peso) | 347 | |
| | | | Accounts Receivable | | 347 |
| | | | [(17,341 × $1.1091 = $19,233) - $19,580] | | |

**Problem 12-1 (continued)**

| | | | | | |
|---|---|---|---|---|---|
| | | 30 | Transaction Loss (British Pound) | 109 | |
| | | | Accounts Payable [(12,200 × $1.6911) = $20,631 - $20,522] | | 109 |
| | | 30 | Accounts Receivable (Krone) | 1,282 | |
| | | | Transaction Gain [(160,274 × $.1530) = $24,522 - $23,240] | | 1,282 |
| | Oct. | 5 | Cash (17,341 × $1.1190) | 19,405 | |
| | | | Transaction Gain (Peso) | | 172 |
| | | | Accounts Receivable | | 19,233 |
| | | 9 | Accounts Payable | 20,631 | |
| | | | Transaction Gain (British Pound) | | 1,174 |
| | | | Cash (12,200 × $1.5948) | | 19,457 |
| | | 30 | Cash (160,274 × $.1440) | 23,079 | |
| | | | Transaction Loss (Franc) | 1,443 | |
| | | | Accounts Receivable | | 24,522 |

| | | Transaction | |
|---|---|---|---|
| | | Sept. 5 | Sept. 14 |
| **Part B** | September 30, 2008 year-end: | | |
| | Sales | $19,580 | $23,240 |
| | Transaction gain (loss) | (347) | 1,282 |
| | September 30, 2009 year-end: | | |
| | Sales | 0 | 0 |
| | Transaction gain (loss) | 172 | (1,443) |
| | Net effect on income for both years | $19,405 | $23,079 |
| | Cash received on settlement date | $19,405 | $23,079 |

**Problem 12-2**

| | | | | | |
|---|---|---|---|---|---|
| **Part A** | Dec | 1 | Purchases | 26,565 | |
| | | | Accounts Payable (210,000 × $.1265) | | 26,565 |
| | | 1 | FC Receivable from Exchange Dealer | 27,594 | |
| | | | Dollars Payable to Exchange Dealer | | 27,594 |
| | | | (210,000 × $.1314 = $27,594) | | |
| | Dec. | 29 | Accounts Receivable (120,000 × $.1240) | 14,880 | |
| | | | Sales | | 14,880 |

**Problem 12-2 (continued)**

| | | | | |
|---|---|---|---|---|
| | 31 | Accounts Payable | 126 | |
| | | Transaction Gain [(210,000 × $.1259 = $26,439) - $26,565] | | 126 |
| | 31 | Transaction Loss | 126 | |
| | | FC Receivable from Exchange Dealer<br>[(210,000 × $.1308 = $27,468) - $27,594] | | 126 |
| | 31 | Accounts Receivable | 228 | |
| | | Transaction Gain [(120,000 × $.1259 = $15,108) - $14,880] | | 228 |
| Apr. | 1 | Cash (120,000 × .1430) | 17,160 | |
| | | Accounts Receivable | | 15,108 |
| | | Transaction Gain | | 2,052 |
| | 1 | Transaction Loss | 3,591 | |
| | | Accounts Payable [(210,000 × $.1430 = $30,030) - $26,439] | | 3,591 |
| | 1 | FC Receivable from Exchange Dealer | 2,562 | |
| | | Transaction Gain [(210,000 × $.1430 = $30,030 - $27,468] | | 2,562 |
| | 1 | Investment in FC | 30,030 | |
| | | Dollars Payable to Exchange Dealer | 27,594 | |
| | | Cash | | 27,594 |
| | | FC Receivable from Exchange Dealer | | 30,030 |
| | 1 | Accounts Payable | 30,030 | |
| | | Investment in Foreign Currency | | 30,030 |

**Part B** The aggregate transaction gain of $228 ($126 - $126 + $228) is included in the firm's income statement as part of continuing operations.

## Problem 12-3

| | | | | | |
|---|---|---|---|---|---|
| **Part A** | Dec. | 1 | Accounts Receivable | 444,100 | |
| | | | Sales (1,000,000 × $.4441) | | 444,100 |
| | | 1 | Cost of Goods Sold | 210,000 | |
| | | | Inventory | | 210,000 |
| | | 31 | Transaction Loss | 75,100 | |
| | | | Accounts Receivable | | 75,100 |
| | | | [(1,000,000 × $.3690 = $369,000) - $444,100] | | |
| | Jan. | 31 | Cash (1,000,000 × $.4421) | 442,100 | |
| | | | Transaction Gain | | 73,100 |
| | | | Accounts Receivable ($444,100 - $75,100) | | 369,000 |

**Part B** Net income decreased by $75,100 in 2008 and increased by $73,100 in 2009. This results in a net decrease of $2,000 over both years. The decrease is equal to the difference between the cash received on the settlement date of $442,100 and the amount of sales recorded of $444,100.

| | | | | | |
|---|---|---|---|---|---|
| **Part C** | Dec. | 1 | Dollars Receivable from Exchange Dealer | 445,100 | |
| | | | FC Payable to Exchange Dealer | | 445,100 |
| | | | (1,000,000 × $.4451 = $445,100) | | |
| | | 31 | FC Payable to Exchange Dealer | 64,100 | |
| | | | Transaction Gain [(1,000,000 × $.3810 = $381,000)- $445,100] | | 64,100 |
| | Jan. | 31 | Transaction Loss [(1,000,000 × $.4421 = $442,100)- $381,000] | 61,100 | |
| | | | FC Payable to Exchange Dealer | | 61,100 |
| | | 31 | Investment in FC (1,000,000 × $.4421) | 442,100 | |
| | | | Accounts Receivable | | 442,100 |
| | | 31 | Cash | 445,100 | |
| | | | FC Payable to Exchange Dealer | 442,100 | |
| | | | Dollars Receivable from Exchange Dealer | | 445,100 |
| | | | Investment in FC | | 442,100 |

## Problem 12-3 (continued)

### Part D

| Exporting Transaction | | Forward Contract | |
|---|---|---|---|
| 2008 | 2009 | 2008 | 2009 |
| Loss $75,100 | Gain $73,100 | Gain $64,100 | Loss $61,100 |

## Problem 12-4

| | | | |
|---|---|---|---|
| Sept. 1 | Accounts Receivable | 2,442,000 | |
| | Sales (16,500,000 × $.1480) | | 2,442,000 |
| 1 | Dollars Receivable from Exchange Dealer | 2,379,300 | |
| | FC Payable to Exchange Dealer (16,500,000 × $.1442 = $2,379,300) | | 2,379,300 |
| 5 | Accounts Receivable (In $) | 5,300,000 | |
| | Sales | | 5,300,000 |
| 15 | Purchases (20,000,000 × $.006430) | 128,600 | |
| | Accounts Payable | | 128,600 |
| 15 | FC Receivable from Exchange Dealer | 129,800 | |
| | Dollars Payable to Exchange Dealer<br>(20,000,000 × $.006490 = $129,800) | | 129,800 |
| 18 | Accounts Receivable | 39,576 | |
| | Sales (48,000 × $.8245) | | 39,576 |
| 30 | Transaction Loss | 41,320 | |
| | Accounts Receivable | | 41,260 |
| | Accounts Payable | | 60 |

| | | Book Value | | Transaction |
|---|---|---|---|---|
| Transaction Date | | Initial | Sept. 30 | Gain (Loss) |
| Accounts Receivable | | | | |
| Sept. 1 | | $2,442,000 | $2,400,750 (a) | (41,250) |
| 5 | Denominated in dollars | | | |
| 18 | | 39,576 | 39,566 (b) | (10) Not hedged |
| Accounts Payable | | | | |
| 15 | | 128,600 | 128,660 (c) | ( 60) |
| | Transaction gain (loss) | | | (41,320) |

(a) 16,500,000 × $.1455 = $2,400,750
(b) 48,000 × $.8243 = 39,566
(c) 20,000,000 × $.006433 = 128,660

**Problem 12-4 (continued)**

| | | | | |
|---|---|---|---|---|
| | 30 | FC Payable to Exchange Dealer | 41,250 | |
| | | FC Receivable from Exchange Dealer | 60 | |
| | | Transaction Gain | | 41,310 |
| Oct. | 15 | Transaction Loss | 40 | |
| | | Accounts Payable [(20,000,000 × $.006435) = $128,700 - $128,660] | | 40 |
| | 15 | FC Receivable from Exchange Dealer | 40 | |
| | | Transaction Gain | | 40 |
| | 15 | Investment in FC (20,000,000 × $.006435) | 128,700 | |
| | | Dollars Payable to Exchange Dealer | 129,800 | |
| | | Cash (20,000,000 × $.006490) | | 129,800 |
| | | FC Receivable from Exchange Dealer | | 128,700 |
| | 15 | Accounts Payable | 128,700 | |
| | | Investment in FC | | 128,700 |
| | 30 | Accounts Receivable | 3,300 | |
| | | Transaction Gain [(16,500,000 × $.1457 )= $2,404,050)- $2,400,750] | | 3,300 |
| | 30 | Transaction Loss | 3,300 | |
| | | FC Payable to Exchange Dealer | | 3,300 |
| | 30 | Investment in FC (16,500,000 × $.1457) | 2,404,050 | |
| | | Accounts Receivable | | 2,404,050 |
| | 30 | FC Payable to Exchange Dealer | 2,404,050 | |
| | | Cash (16,500,000 × $.1442) | 2,379,300 | |
| | | Investment in FC | | 2,404,050 |
| | | Dollars Receivable from Exchange Dealer | | 2,379,300 |
| Nov. | 5 | Cash | 5,300,000 | |
| | | Accounts Receivable (In $) | | 5,300,000 |

**Problem 12-4 (continued)**

| | | | |
|---|---|---|---|
| Dec. 17 | Cash (48,000 × $.8250) | 39,600 | |
| | Transaction Gain | | 34 |
| | Accounts Receivable ($39,576 - $10) | | 39,566 |

**Problem 12-5**

**Part A**

| | | | |
|---|---|---|---|
| Nov. 2 | Accounts Receivable | 80,105 | |
| | Sales (50,000 × $1.6021 = $80,105) | | 80,105 |
| | | | |
| | Dollars Receivable from Exchange Dealer (50,000 × $1.5920 = 79,600) | 79,600 | |
| | FC Payable to Exchange Dealer | | 79,600 |
| | | | |
| Dec. 31 | Transaction Loss | 1,005 | |
| | Accounts Receivable [(50,000 × $1.5820 = 79,100) - $80,105] | | 1,005 |
| | | | |
| | FC Payable to Exchange Dealer | 600 | |
| | Transaction Gain [(50,000 × $1.58 = $79,000) – $79,600] | | 600 |
| | | | |
| Mar. 1 | Accounts Receivable | 3,615 | |
| | Transaction Gain [(50,000 × $1.6543 = 82,715) - 79,100] | | 3,615 |
| | | | |
| | Transaction Loss | 3,715 | |
| | FC Payable to Exchange Dealer[(50,000 × $1.6543 = $82,715) – $79,000] | | 3,715 |
| | | | |
| | Investment in FC | 82,715 | |
| | Accounts Receivable | | 82,715 |
| | | | |
| | Cash | 79,600 | |
| | FC Payable to Exchange Dealer | 82,715 | |
| | Investment in FC | | 82,715 |
| | Dollars Receivable from Exchange Dealer | | 79,600 |

**Problem 12-5 (continued)**

**Part B**

| | | | |
|---|---|---|---|
| Nov. 2 | Dollars Receivable from Exchange Dealer | 79,600 | |
| | FC Payable to Exchange Dealer | | 79,600 |
| Dec. 31 | FC Payable to Exchange Dealer | 600 | |
| | Exchange Gain | | 600 |
| | Exchange Loss | 600 | |
| | Firm Commitment | | 600 |
| Mar. 1 | Exchange Loss | 3,715 | |
| | FC Payable to Exchange Dealer | | 3,715 |
| | Firm Commitment | 3,715 | |
| | Exchange Gain | | 3,715 |
| | Investment in FC | 82,715 | |
| | Sales | | 79,600 |
| | Firm Commitment ($1.6543 - $1.592) × 50,000 | | 3,115 |
| | Cash | 79,600 | |
| | FC Payable to Exchange Dealer | 82,715 | |
| | Investment in FC | | 82,715 |
| | Dollars Receivable from Exchange Dealer | | 79,600 |

**Part C**

| | | | |
|---|---|---|---|
| Nov. 2 | Dollars Receivable from Exchange Dealer | 79,600 | |
| | FC Payable to Exchange Dealer | | 79,600 |
| Dec. 31 | FC Payable to Exchange Dealer ((50,000 × $1.5800 = $79,000) - $79,600) | 600 | |
| | Transaction Gain | | 600 |
| Mar. 1 | Transaction Loss ((50,000 × $1.6543 = $82,715) - $79,000) | 3,715 | |
| | FC Payable to Exchange Dealer | | 3,715 |
| | Investment in FC | 82,715 | |
| | Cash | | 82,715 |
| | Cash | 79,600 | |
| | FC Payable to Exchange Dealer | 82,715 | |
| | Dollars Receivable from Exchange Dealer | | 79,600 |
| | Investment in FC | | 82,715 |

**Part D**

| 2008 | A | B | C |
|---|---|---|---|
| Sales | 80,105 | 0 | 0 |
| Transaction gain (loss) | 600 | 600 | 600 |
| | (1,005) | (600) | 0 |
| Increase (decrease) in net income | $ 79,700 | $ 0 | $ 600 |

**Problem 12-5 (continued)**

| | | | |
|---|---|---|---|
| 2009 | | | |
| Sales | 0 | 79,600* | 0 |
| Transaction gain (loss) | 3,615 | 3,715 | 0 |
| | (3,715) | (3,715) | (3,715) |
| Increase (decrease) in net income | $ (100) | $79,600 | $(3,715) |
| Net increase (decrease) in net income 2008 + 2009 | $79,600 | $79,600 | $(3,115)** |

*$82,715 - $3,115 = $79,600

**Verification of loss

| | |
|---|---|
| Cash paid to buy currency | 82,715 |
| Cash paid to complete forward contract | 79,600 |
| Net loss on forward contract | $ 3,115 |

| On BS | 2008 |
|---|---|
| $ Receivable | $79,600 |
| FC Payable | 79,000 |
| | $ 600 |

**Problem 12-6**

**Part A** Oct 1 Sales contract - No entry required since it is a commitment to sell.

| | | | | |
|---|---|---|---|---|
| | 1 | Dollars Receivable from Exchange Dealer | 371,341 | |
| | | FC Payable to Exchange Dealer | | 371,341 |
| | | 50,100,000 × $.007412 = $371,341 | | |
| Dec | 31 | Exchange Loss | 24,950 | |
| | | FC Payable to Exchange Dealer | | 24,950 |
| | | [(50,100,000 × $.007910 = $396,291) - $371,341] | | |
| | | Firm Commitment | 24,950 | |
| | | Exchange Gain | | 24,950 |
| Jan | 28 | FC Payable | 11,824 | |
| | | FC Payable to Exchange Dealer | | 11,824 |
| | | [(50,100,000 × $.007674 = $384,467) - $396,291] | | |
| | 28 | Exchange Loss | 11,824 | |
| | | Firm Commitment | | 11,824 |

**Problem 12-6 (continued)**

| | | | | |
|---|---|---|---|---|
| Jan | 28 | Accounts Receivable (50,100,000 × $.007623) | 381,912 | |
| | | Sales | | 368,786 |
| | | Firm Commitment | | 13,126 |
| | | Accounts Receivable is recorded at spot rate | | |
| | 28 | Cost of Goods Sold (25,000 × $7.50) | 187,500 | |
| | | Inventory | | 187,500 |
| Mar | 29 | Accounts Receivable | 852 | |
| | | Transaction Gain | | 852 |
| | | [(50,100,000 × $.007640 = $382,764) - $381,912] | | |
| | 29 | FC Payable | 1,703 | |
| | | Transaction gain | | 1,703 |
| | | [(50,100,000 × $.007640 = $382,764) - $384,467] | | |
| | 29 | Investment in FC | 382,764 | |
| | | Accounts Receivable | | 382,764 |
| | 29 | Cash (50,100,000 × $.007412) | 371,341 | |
| | | FC Payable to Exchange Dealer | 382,764 | |
| | | Dollars Receivable from Exchange Dealer | | 371,341 |
| | | Investment in FC | | 382,764 |

| | | | | |
|---|---|---|---|---|
| **Part B** | 2008 | - 0 - | | |
| | 2009 | Sales ($381,912 - $13,126) | | $368,786 |
| | | Cost of goods sold | | 187,500 |
| | | Gross profit | | $181,286 |
| | | Transaction Gain | $1,703 | |
| | | | 852 | 2,555 |
| | | Net increase | | $183,841 |
| | | or | | |
| | | Cash received | | $371,341 |
| | | Cost of goods sold | | 187,500 |
| | | | | $183,841 |
| **Part C** | 2008 | - 0 - | | |
| | 2009 | Sales | | $381,912 |
| | | Cost of goods sold | | 187,500 |
| | | Gross profit | | $194,412 |
| | | Transaction gain | | 852 |
| | | Net increase | | $195,264 |
| | | or | | |
| | | Cash received on March 29 | | $382,764 |
| | | Cost of goods sold | | 187,500 |
| | | Net increase | | $195,264 |

## Problem 12-7

**Part A** Rather than focusing on the solution, students should focus on the rational supporting their conclusions. Accordingly, the following questions should be given consideration:

1. What is the purpose of the company policy? Under what conditions might it be justified to deviate from company policy, if any?
2. In whose best interest was the controller acting? Is there some overall "best interest" which supersedes company policy?
3. Is it appropriate to have "situation specific" ethics?

**Part B**

1. HAL may hedge against future losses by entering into forward exchange contracts.
2. Advantages:
   (a) Determine the extent of loss related to each transaction which is important for planning purposes, and
   (b)Minimize potential losses.
   Disadvantage:
   Eliminates potential to take advantages of any favorable exchange rate changes.
3. SFAS No. 133 specifies the disclosure requirements concerning concentrations of credit risk for all financial instruments. SFAS No. 107 is relied on to provide valuation guidance for measuring fair value.

SFAS No. 133 requires that an entity recognize all derivatives as either assets or liabilities measured at fair value. Specific disclosures required under SFAS No. 133 are the objectives of the instruments, the context needed to understand them, the strategies for achieving them, the risk management policy, and a description of items or transactions that are hedged for each of the following:
1. Fair value hedges
2. Cash flow hedges
3. Foreign currency net investment hedges; and
4. All other derivatives.

For derivative instruments not designated as hedges, the purpose of their activity must be disclosed. Qualitative disclosures concerning the use of derivative instruments are encouraged, particularly in a context of overall risk management, as well as for financial instruments or nonfinancial assets and liabilities related by activity to derivative instruments.

**Part C** 1. Options are to (a) enter into foreign currency hedges or (b) leave the contracts exposed to future currency fluctuations.
2. Rather than focusing on the specific decision, students should give consideration to the conflict between fiduciary responsibility to shareholders and desire for individual financial gain.

## Problem 12-8

December 1, 2009

| | | |
|---|---|---|
| Option to sell Francs | 6,000 | |
| Cash | | 6,000 |

December 31, 2009

| | | |
|---|---|---|
| Option to sell Francs | 3,000 | |
| Exchange Gain – Other Comprehensive Income (balance sheet equity) | | 3,000 |

To record a gain on the change in option value ($9,000 - $6,000)

February 25, 2010

| | | | |
|---|---|---|---|
| (3) | Option to sell Francs | 3,000 | |
| | Exchange Gain – Other Comprehensive Income | | 3,000 |

To adjust the option value to its current realizable value of $12,000:
the value of the option [($.60 exercise price less $.57 spot rate) x 400,000 francs]
of $12,000 less the carrying value of the option ($9,000)

| | | | |
|---|---|---|---|
| (4) | Cash (400,000 × .60) | 240,000 | |
| | Option to sell Francs | | 12,000 |
| | Payable to Option Trader (400,000 × $.57) | | 228,000 |

To exercise the option and settle with the trader.

## Problem 12-9

| | | | |
|---|---|---|---|
| Dec. 1 | Dollars Receivable from Exchange Dealer (200,000 × $1.02) | 204,000 | |
| | FC Payable to Exchange Dealer | | 204,000 |
| Dec. 31 | FC Payable to Exchange Dealer | 4,000 | |
| | Foreign Exchange Gain – Other Comprehensive Income<br>[200,000 × ($1.02- $1.00)] | | 4,000 |
| Jan. 31 | FC Payable to Exchange Dealer | 2,000 | |
| | Foreign Exchange Gain – Other Comprehensive Income<br>[200,000 × ($1.00 - $0.99)] | | 2,000 |
| | Investment in FC | 198,000 | |
| | Sales (200,000 × $0.99) | | 198,000 |
| | Cost of Goods Sold (cost of equipment sold) | 170,000 | |
| | Inventory | | 170,000 |
| | Foreign Exchange Gain – Other Comprehensive Income ($4,000 + $2,000) | 6,000 | |
| | Cost of Goods Sold | | 6,000 |

To reclassify other comprehensive income into earnings

**Problem 12-10**

**Note: Settlement date should be stated as 11/15/08.**

**Part A**

| | | | |
|---|---|---|---|
| Oct. 1 | FC Receivable from Exchange Dealer (300,000 × $1.23) | 369,000 | |
| | Dollars Payable to Exchange Dealer | | 369,000 |
| | | | |
| Nov. 15 | FC Receivable from Exchange Dealer | 21,000 | |
| | Foreign Exchange Gain | | 21,000 |
| | [300,000 × (1.23 - 1.30)] | | |
| | | | |
| | Foreign Exchange Loss | 21,000 | |
| | Firm Commitment | | 21,000 |
| | [10,000 × (1.23- 1.30)] | | |
| | | | |
| | Investment in FC (300,000 × $1.30) | 390,000 | |
| | Dollars Payable to Exchange Dealer | 369,000 | |
| | FC Receivable from Exchange Dealer | | 390,000 |
| | Cash | | 369,000 |
| | | | |
| | Firm Commitment | 21,000 | |
| | Equipment | 369,000 | |
| | Investment in FC | | 390,000 |

**Part B**

| | | | |
|---|---|---|---|
| | Equipment | 390,000 | |
| | Cash | | 390,000 |

## Problem 12-11

### Part A

| | | | |
|---|---|---|---|
| Oct. 1 | FC Receivable from Exchange Dealer (300,000 × $1.23) | 369,000 | |
| | Dollars Payable to Exchange Dealer | | 369,000 |
| | | | |
| Nov. 15 | FC Receivable from Exchange Dealer | 21,000 | |
| | Foreign Exchange Gain | | 21,000 |
| | [300,000 × ($1.23 - $1.30)] | | |
| | | | |
| | Foreign Exchange Loss | 21,000 | |
| | Firm Commitment | | 21,000 |
| | [300,000 × ($1.23 - $1.30)] | | |
| | | | |
| | Firm Commitment | 21,000 | |
| | Equipment | 369,000 | |
| | Accounts Payable (300,000 × $1.30) | | 390,000 |
| | | | |
| Dec.15 | Foreign Exchange Loss | 6,000 | |
| | FC Receivable from Exchange Dealer | | 6,000 |
| | [300,000 × ($1.30 - $1.28)] (using changes in forward rate) | | |
| | | | |
| | Accounts Payable | 6,000 | |
| | Transaction Gain | | 6,000 |
| | [300,000 × ($1.30 - $1.28)] using changes in spot rate) | | |
| | | | |
| | Investment in FC (300,000 × $1.28) | 384,000 | |
| | Dollars Payable to Exchange Dealer | 369,000 | |
| | FC Receivable from Exchange Dealer | | 384,000 |
| | Cash | | 369,000 |
| | | | |
| | Accounts payable ($390,000 - $6,000) | 384,000 | |
| | Investment in FC (300,000 × 1.28) | | 384,000 |

### Part B

| | | | |
|---|---|---|---|
| | Equipment | 390,000 | |
| | Accounts Payable | | 390,000 |
| | | | |
| | Accounts Payable | 390,000 | |
| | Cash (300,000 × $1.28) | | 384,000 |
| | Transaction Gain | | 6,000 |

**Problem 12-12**

**Part A**

| | | | |
|---|---|---|---|
| Oct. 1 | Option to buy FC | 4,000 | |
| | Cash | | 4,000 |
| | | | |
| Nov 15 | Option to buy FC | 14,000 | |
| | Foreign Exchange Gain | | 14,000 |
| | To adjust the option to its intrinsic value of $18,000 [300,000 × ($1.24 - $1.30)] or $18,000 – $4,000 = $14,000. | | |
| | | | |
| | Foreign Exchange Loss | 14,000 | |
| | Firm Commitment | | 14,000 |
| | | | |
| | Investment in FC (300,000 × $1.30) | 390,000 | |
| | Cash (300,000 × $1.24) | | 372,000 |
| | Option to buy FC (intrinsic value) | | 18,000 |
| | | | |
| | Equipment | 376,000 | |
| | Firm Commitment | 14,000 | |
| | Investment in FC (300,000 × $1.30) | | 390,000 |

**Part B**

| | | |
|---|---|---|
| Equipment (300,000 × $1.30) | 390,000 | |
| Cash | | 390,000 |

# CHAPTER 13

**Note: The letter A or B indicated for a question, exercise, or problem means that the question, exercise, or problem relates to a chapter appendix.**

## ANSWERS TO QUESTIONS

1. (1) The parent company must control more than 50 percent of the voting stock of the subsidiary.
   (2) The intent of control should be permanent.
   (3) The control should rest with the majority owners.

2. The functional currency of an entity is the currency of the primary economic environment in which the entity operates. The FASB provided the following six economic indicators:
   a. The impact on the parent's cash flow;
   b. The short-term responsiveness of the sales price to changes in the exchange rate;
   c. The sales market for the firm's products;
   d. The currency in which labor, materials, and other factor inputs are primarily obtained;
   e. The currency in which debt is denominated and the ability of the foreign entity's operations to generate amounts of that currency sufficient to service the debt;
   f. The volume of transactions between the foreign entity and its parent.

3. Local currency, current rate

4. U.S. dollar, temporal

5. The temporal method is used when a foreign subsidiary operates in a highly inflationary economy.

6. Remeasurement is the process of translating the accounts of a foreign entity into its functional currency when they are stated in another currency.

7. All assets and liabilities are translated using the current rate at the balance sheet date when the current rate method of translation is used.

8. Assets and liabilities are translated at the rate in effect at the balance sheet date. Common stock is translated at the historical rate when the stock was issued. Retained earnings consists of various period's net income (translated at the yearly average rates) less dividends converted at the historical rates on the declaration dates. The cumulative translation adjustment is a balancing amount in equity, which results in total equity (including the cumulative adjustment) being driven back to the rate in effect at the balance sheet date. Thus, the ratios will not change from their calculations using the local currency.

9. Application of the temporal method produces translated amounts that reflect transactions as if they had been measured in dollars originally rather than in the local currency.

10. Revenues and expenses are translated using the exchange rate in effect when they were recognized during the period except for expenses associated with nonmonetary items which are translated using historical rates. Because it is impractical to translate numerous transactions, the use of an appropriate average is permitted.

11. The translation adjustment is reported as a separate component of stockholders' equity when the current rate method is used to translate the accounts.

**Business Ethics Solutions**

Business ethics solutions are merely suggestions of points to address. The objective is to raise the students' awareness of the topics, and to invite discussion. In most cases, there is clear room for disagreement or conflicting viewpoints.

1. Spring-loading is a contentious issue, and the following points are among those that may be considered in a discussion or debate of whether it should be allowed or not:

- Though granting options is intended to motivate and incentivize the employees to generate more profits, granting an award that is already known (or strongly suspected) before-the-fact to be in the money very soon seems counter to this intent.
- Companies engaged in spring-loading mislead investors by not disclosing that options are awarded with foreknowledge of the impending good news.
- Spring-loading is legal as long as the compensation committee awarding the options knows the same information as the recipient, and the company informs shareholders that it does not withhold granting options when undisclosed, positive company information is pending.
- Companies suspected of spring-loading cannot be said to have advantage of prior market reactions that have not actually taken place, and executives can argue, truthfully, that there is no way to know for certain how the market will react to impending news.

Option manipulation is generally more likely to occur in circumstances in which the company executives like CEOs have greater influence on the company's pay-setting and governance processes, which suggests a lack of board oversight.

2. Spring-loaded grants might violate insider-trading rules, particularly if managers with knowledge of the information gives options to themselves, or if executives conceal good news from directors while urging them to grant options.

Also, see the following links: http://www.cfo.com/article.cfm/7880157/1/c_2984338
http://blog.issproxy.com/files/OptionsBackdating7806.pdf
http://www.aflcio.org/corporatewatch/paywatch/stockoptions.cfm

## ANSWERS TO EXERCISES

### Exercise 13-1

| | Functional Currency | |
|---|---|---|
| | U.S. Dollar | Local Currency |
| Cash | C | C |
| Accounts receivable | C | C |
| Inventory carried at cost | H | C |
| Inventory carried at market | C | C |
| Prepaid rent | H | C |
| Property, plant, and equipment | H | C |
| Goodwill | H | C |
| Accounts payable | C | C |
| Bonds payable | C | C |
| Unamortized premium on bonds payable | C | C |
| Preferred stock carried at issuance price | H | H |
| Common stock | H | H |
| Sales | A | A |
| Cost of goods sold | H | A |
| Depreciation expense | H | A |

### Exercise 13-2

1. c 2. b 3. d 4. d 5. c

### Exercise 13-3

1. a 2. c 3. c 4. b 5. b

## Exercise 13-4

**Part A**

| | Swiss Francs | Translation Rate | $ |
|---|---|---|---|
| Consolidated Income and Retained Earnings Statement | | | |
| Revenues | 75,000 | $.5654 | 42,405 |
| Operating Expenses | (30,000) | .5654 | (16,962) |
| Net Income | 45,000 | | 25,443 |
| Retained Earnings - 1/1 | 10,000 | .5987 | 5,987 |
| | 55,000 | | 31,430 |
| Dividends | (15,000) | .5810 | (8,715) |
| Retained Earnings - 12/31 | 40,000 | | 22,715 |
| | | | |
| Balance Sheet | | | |
| Cash and Receivables | 55,000 | .5321 | 29,266 |
| Net Property, Plant, and Equipment | 37,000 | .5321 | 19,688 |
| Total | 92,000 | | 48,954 |
| | | | |
| Accounts and Notes Payable | 32,000 | .5321 | 17,027 |
| Common Stock | 20,000 | .5987 | 11,974 |
| Retained Earnings | 40,000 | | 22,715 |
| | 92,000 | | 51,716 |
| Cumulative Translation Adjustment (debit) | --- | Balancing amt. | (2,762) |
| Total | 92,000 | | 48,954 |

**Part B**

| | Swiss Francs | Translation Rate | $ |
|---|---|---|---|
| Exposed net asset position - 1/1 | 30,000 | $.5987 | 17,961 |
| Adjustment for changes in the net asset position during the year: | | | |
| Net income | 45,000 | .5654 | 25,443 |
| Dividends | (15,000) | .5810 | (8,715) |
| Net asset position translated using rate in effect at date of transactions | --- | | 34,689 |
| Exposed net asset position - 12/31 | 60,000 | .5321 | 31,927 |
| Cumulative translation adjustment (debit) | | | (2,762) |

**Exercise 13-5**

**Part A** Balance Sheet

| | Swiss Francs | Translation Rate | $ |
|---|---|---|---|
| Cash and Receivables | 55,000 | $.5321 | 29,266 |
| Net Property, Plant, and Equipment | 37,000 | .5987 | 22,152 |
| Total | 92,000 | | 51,418 |
| | | | |
| Accounts and Notes Payable | 32,000 | .5321 | 17,027 |
| Common Stock | 20,000 | .5987 | 11,974 |
| Retained Earnings | 40,000 | Balancing amt. | 22,417 |
| Total | 92,000 | | 51,418 |

Consolidated Income Statement and Retained Earnings Statement

| | | Swiss Francs | Translation Rate | $ |
|---|---|---|---|---|
| Revenue | | 75,000 | .5654 | 42,405 |
| Operating Expenses: | depreciation | (3,000) | .5987 | (1,796) |
| | other | (27,000) | .5654 | (15,266) |
| Translation Loss | | --- | Balancing amt. | (198) |
| Net Income | | 45,000 | | 25,145 |
| Retained Earnings - 1/1 | | 10,000 | .5987 | 5,987 |
| | | 55,000 | | 31,132 |
| Dividends | | (15,000) | .5810 | (8,715) |
| Retained Earnings - 12/31 | | 40,000 | | 22,417 |

**Part B**

| | Swiss Francs | Translation Rate | $ |
|---|---|---|---|
| Net monetary liability position - 1/1 ($20,000 - $30,000) | (10,000) | $.5987 | (5,987) |
| Adjustment for changes in net monetary position during the year: | | | |
| Add: Increase in cash and receivables from sales | 75,000 | .5654 | 42,405 |
| Less: Decrease in net asset position: | | | |
| Other operating expenses | (27,000) | .5654 | (15,266) |
| Dividends | (15,000) | .5810 | (8,715) |
| Net asset position translated using rate in effect at date of transaction | --- | | 12,437 |
| Net monetary asset position-12/31 ($32,000 - $55,000) | 23,000 | .5321 | 12,238 |
| Translation gain (loss) | | | (199) |

## Exercise 13-6

| | | Part A | | Part B | |
|---|---|---|---|---|---|
| | Swiss | Translation | Brazilian | Translation | |
| | Franc | Rate | Real | Rate | $ |
| Consolidated Income and Retained Earnings Statement | | | | | |
| Revenues | 75,000 | 1.3445 | 100,838 | $.4751 | 47,908 |
| Operating Expenses | | | | | |
| Depreciation | (3,000) | 1.3940 | (4,182) | .4751 | (1,987) |
| Other | (27,000) | 1.3445 | (36,302) | .4751 | (17,247) |
| Translation Loss | --- | Balancing amount | (2,271) | .4751 | (1,079) |
| Net Income | 45,000 | | 58,083 | | 27,595 |
| Retained Earnings - 1/1 | 10,000 | 1.3940 | 13,940 | .4891 | 6,818 |
| | 55,000 | | 72,023 | | 34,413 |
| Dividends | (15,000) | 1.2438 | (18,657) | .4740 | (8,843) |
| Retained Earnings - 12/31 | 40,000 | | 53,366 | | 25,570 |
| | | | | | |
| Balance Sheet | | | | | |
| Cash and Receivables | 55,000 | 1.2899 | 70,945 | .4630 | 32,847 |
| Net Property, Plant, and Equipment | 37,000 | 1.3940 | 51,578 | .4630 | 23,880 |
| Total | 92,000 | | 122,523 | | 56,727 |
| | | | | | |
| Accounts and Notes Payable | 32,000 | 1.2899 | 41,277 | .4630 | 19,111 |
| Common Stock | 20,000 | 1.3940 | 27,880 | .4891 | 13,636 |
| Retained Earnings | 40,000 | Balancing amount | 53,366 | | 25,570 |
| | 92,000 | | 122,523 | | 58,317 |
| Translation Adjustment (loss) | -- | | --- | | (1,590) |
| Total | 92,000 | | 122,523 | | 56,727 |

**Exercise 13-7**

| | Adjusted | Translation | Adjusted |
|---|---|---|---|
| | Trial Balance (£) | Rate | Trial Balance ($) |
| Consolidated Income and Retained Earnings Statement | | | |
| Sales | 2,900,000 | $1.4788 | 4,288,520 |
| Cost of Goods Sold | 1,400,000 | 1.4788 | 2,070,320 |
| Depreciation Expense | 300,000 | 1.4788 | 443,640 |
| Other Expenses | 400,000 | 1.4788 | 591,520 |
| Net Income | 800,000 | | 1,183,040 |
| Beginning Retained Earnings | 900,000 | Given | 1,593,408 |
| | 1,700,000 | | 2,776,448 |
| Less: Dividends | 325,000 | 1.4730 | 478,725 |
| Ending Retained Earnings | 1,375,000 | | 2,297,723 |
| | | | |
| Balance Sheet | | | |
| Cash and Receivables | 1,275,000 | 1.4730 | 1,878,075 |
| Merchandise Inventory | 490,000 | 1.4730 | 721,770 |
| Property, Plant, and Equipment | 3,450,000 | 1.4730 | 5,081,850 |
| | 5,215,000 | | 7,681,695 |
| | | | |
| Current Liabilities | 640,000 | 1.4730 | 942,720 |
| Long-term Notes Payable | 1,200,000 | 1.4730 | 1,767,600 |
| Capital Stock | 2,000,000 | 1.8365 | 3,673,000 |
| Retained Earnings | 1,375,000 | | 2,297,723 |
| Cumulative Translation Adjustment | --- | Balancing amount | (999,348) |
| Total | 5,215,000 | | 7,681,695 |

## Exercise 13-8

| | Adjusted Trial Balance (£) | Translation Rate | Adjusted Trial Balance ($) |
|---|---|---|---|
| Balance Sheet | | | |
| Cash and Receivables | 1,275,000 | $1.4730 | 1,878,075 |
| Merchandise Inventory | 490,000 | 1.4950 | 732,550 |
| Property, Plant, and Equipment | 3,450,000 | 1.8365 | 6,335,925 |
| | 5,215,000 | | 8,946,550 |
| | | | |
| Current Liabilities | 640,000 | 1.4730 | 942,720 |
| Long-term Notes Payable | 1,200,000 | 1.4730 | 1,767,600 |
| Capital Stock | 2,000,000 | 1.8365 | 3,673,000 |
| Retained Earnings | 1,375,000 | Balancing amount | 2,563,230 |
| Cumulative Translation Adjustment | --- | | |
| | 5,215,000 | | 8,946,550 |
| | | | |
| Consolidated Income and Retained Earnings Statement | | | |
| Sales | 2,900,000 | $1.4788 | 4,288,520 |
| Cost of Goods Sold | (1,400,000) | Schedule A | (2,083,886) |
| Depreciation Expense | (300,000) | 1.8365 | (550,950) |
| Other Expenses | (400,000) | 1.4788 | (591,520) |
| Translation Gain | --- | | 188,467 |
| Net Income | 800,000 | | 1,250,631 |
| Beginning Retained Earnings | 900,000 | Given | 1,791,324 |
| | 1,700,000 | | 3,041,955 |
| Less: Dividends | 325,000 | 1.4730 | 478,725 |
| Ending Retained Earnings | 1,375,000 | | 2,563,230 |
| | | | |
| Schedule A - Translation of cost of goods sold | | | |
| Beginning Inventory | 420,000 | 1.5300 | 642,600 |
| Purchases (1,400,000 + 490,000 + 420,000) | 1,470,000 | 1.4788 | 2,173,836 |
| | 1,890,000 | | 2,816,436 |
| Ending Inventory | 490,000 | 1.4950 | 732,550 |
| Cost of Goods Sold | 1,400,000 | | 2,083,886 |

**Exercise 13-9**

| | | | Translation | |
|---|---|---|---|---|
| | | (£) | Rate | ($) |
| **Part A** | Exposed net asset position - 1/1 | 63,000 | $1.5403 | 97,039 |
| | Adjustment for changes in the net asset position during the year | | | |
| | Add: Revenues | 40,000 | 1.5532 | 62,128 |
| | Less: Operating expenses | (20,000) | 1.5532 | (31,064) |
| | Dividends | (4,000) | 1.5961 | (6,384) |
| | Net asset position translated using rate in effect at date of transactions | | | 121,719 |
| | Exposed net asset position - 12/31 | 79,000 | 1.5961 | 126,092 |
| | Cumulative translation adjustment - gain | | | 4,373 |

| | | (£) | Rate | ($) |
|---|---|---|---|---|
| **Part B** | Exposed net monetary liability position - 1/1 (15,500 + 25,000 – 32,000) | 8,500 | $1.5403 | 13,093 |
| | Adjustment for changes in net monetary position during the year | | | |
| | Less: Increase in cash and receivables - revenues | (40,000) | 1.5532 | (62,128) |
| | Add: Decrease in monetary assets or increase in monetary liabilities | | | |
| | Operating expenses - less depreciation and office supplies used | 14,400 | 1.5532 | 22,366 |
| | Dividends | 4,000 | 1.5961 | 6,384 |
| | Net monetary asset position translated using rate in effect at date of transactions | --- | | 20,285 |
| | Exposed net monetary asset position-12/31 (35,000 - 6,900 – 15,000) | 13,100 | 1.5961 | 20,909 |
| | Translation gain | | | 624 |

**Part C** An entity's accounting exposure to changes in the exchange rate is related to the set of accounts translated at the current rate. Under the current rate method, all assets and liabilities are translated at the current rate. Thus, under this method, only the net asset position will result in a translation adjustment. Under the current rate method, a gain results from a net asset position and an increase in the exchange rate. In contrast, monetary assets and liabilities are translated at the current rate when using the temporal method. In this exercise, the company went from a net monetary liability position to a net monetary asset position during the year. A translation gain results from an increase in the exchange rate.

## Exercise 13-10A

**Part A** 1. Inventory $\left(\frac{\$30{,}000}{\$.5192}\right)$ = 57,781 × 50% = 28,891 × $.4994 = $14,428

Accounts Payable $\left(\frac{\$30{,}000}{.4994}\right)$ = 60,072 × $.4994 = $30,000

2. Measurement of accounts payable

| | |
|---|---|
| Year-end $\left(\frac{\$30{,}000}{.4994}\right)$ | 60,072 |
| Date of transaction $\left(\frac{\$30{,}000}{.5192}\right)$ | 57,781 |
| Transaction loss | 2,291 |

3. The transaction loss is reported in determining net income for the current period since the transaction is not of a long-term investment nature.

**Part B** Unrealized profit in ending inventory - $6,000 × 50% = $3,000

**Part C** 1. Measurement of accounts receivable

| | |
|---|---|
| Year-end 50,204 × $.4994 = | $25,878 |
| Transaction date 50,204 × $.5192 = | 26,066 |
| Transaction loss | $188 |

2. The transaction loss is reported in determining net income for the current period.

3. A transaction loss (or gain) related to a loan of a long-term investment nature is deferred and reported in a separate component of stockholders' equity.

## ANSWERS TO PROBLEMS

### Problem 13-1

**Part A Consolidated Income and Retained Earnings Statement**

| | New Zealand $ | Translation Rate | U.S. $ |
|---|---|---|---|
| Revenues | 3,225,000 | $.7480 | 2,412,300 |
| Cost of Goods Sold | 2,200,000 | .7480 | 1,645,600 |
| Depreciation Expense | 140,000 | .7480 | 104,720 |
| Other Expenses | 540,000 | .7480 | 403,920 |
| Net Income | 345,000 | | 258,060 |
| Retained Earnings - 1/1 | 720,000 | .7924 | 570,528 |
| | 1,065,000 | | 828,588 |
| Less: Dividends Declared - 7/1 | (50,000) | .7412 | (37,060) |
| 12/31 | (50,000) | .7298 | (36,490) |
| Retained earnings - 12/31 | 965,000 | | 755,038 |

**Balance Sheet**

| | New Zealand $ | Translation Rate | U.S. $ |
|---|---|---|---|
| Cash and Receivables | 880,000 | .7298 | 642,224 |
| Inventories | 500,000 | .7298 | 364,900 |
| Land | 400,000 | .7298 | 291,920 |
| Building (net) | 605,000 | .7298 | 441,529 |
| Equipment (net): | | | |
| Purchased before 1/1 | 380,000 | .7298 | 277,324 |
| Purchased 7/1 | 90,000 | .7298 | 65,682 |
| Totals | 2,855,000 | | 2,083,579 |
| | | | |
| Short-Term Accounts and Notes | 210,000 | .7298 | 153,258 |
| Long-Term Notes | 680,000 | .7298 | 496,264 |
| Common Stock | 800,000 | .7924 | 633,920 |
| Additional Paid-in Capital | 200,000 | .7924 | 158,480 |
| Retained Earnings | 965,000 | | 755,038 |
| Totals | 2,855,000 | | 2,196,960 |
| Translation Adjustment | --- | Balancing amt. | (113,381) |
| Totals | 2,855,000 | | 2,083,579 |

**Problem 13-1 (continued)**

| | | New Zealand $ | Translation Rate | U.S. $ |
|---|---|---|---|---|
| **Part B** | Exposed net asset position - 1/1 | 1,720,000 | $.7924 | 1,362,928 |
| | Adjustments for changes in net asset position during the year: | | | |
| | Net income | 345,000 | .7480 | 258,060 |
| | Dividends declared - 7/1 | (50,000) | .7412 | (37,060) |
| | 12/31 | (50,000) | .7298 | (36,490) |
| | Net asset position translated using rate in effect at date of transaction | | | 1,547,438 |
| | Exposed net asset position - 12/31 | 1,965,000 | .7298 | 1,434,057 |
| | Cumulative translation adjustment (debit) | | | (113,381) |

**Problem 13-2**

| | | New Zealand $ | Translation Rate | U.S. $ |
|---|---|---|---|---|
| **Part A** | **Balance Sheet** | | | |
| | Cash and Receivables | 880,000 | $.7298 | 642,224 |
| | Inventories | 500,000 | .7476 | 373,800 |
| | Land | 400,000 | .7924 | 316,960 |
| | Buildings (net) | 605,000 | .7924 | 479,402 |
| | Equipment (net): | | | |
| | Purchased before 1/1 | 380,000 | .7924 | 301,112 |
| | Purchased 7/1 | 90,000 | .7412 | 66,708 |
| | Totals | 2,855,000 | | 2,180,206 |
| | | | | |
| | Short-Term Payables | 210,000 | .7298 | 153,258 |
| | Long-Term Notes | 680,000 | .7298 | 496,264 |
| | Common Stock | 800,000 | .7924 | 633,920 |
| | Additional Paid-in Capital | 200,000 | .7924 | 158,480 |
| | Retained Earnings | 965,000 | Balancing amt. | 738,284 |
| | Totals | 2,855,000 | | 2,180,206 |

**Problem 13-2 (continued)**

### Consolidated Statement of Income and Retained Earnings

| | | | |
|---|---|---|---|
| Revenues | 3,225,000 | .7480 | 2,412,300 |
| Cost of Goods Sold | 2,200,000 | Schedule 1 | 1,672,440 |
| Depreciation Expense | 140,000 | Schedule 2 | 110,424 |
| Other Expenses | 540,000 | .7480 | 403,920 |
| Translation Loss (Gain) | --- | Balancing amt. | (15,790) |
| Net Income | 345,000 | | 241,306 |
| Retained Earnings - 1/1 | 720,000 | .7924 | 570,528 |
| | 1,065,000 | | 811,834 |
| Less: Dividends Declared - 7/1 | (50,000) | .7412 | (37,060) |
| 12/31 | (50,000) | .7298 | (36,490) |
| Retained Earnings - 12/31 | 965,000 | | 738,284 |

Schedule 1 - Translation of cost of goods sold

| | New Zealand $ | Translation Rate | U.S. $ |
|---|---|---|---|
| Beginning Inventory | 600,000 | .7924* | 475,440 |
| Purchase | 2,100,000 | .7480 | 1,570,800 |
| | 2,700,000 | | 2,046,240 |
| Less: Ending Inventory | 500,000 | .7476 | 373,800 |
| Cost of Goods Sold | 2,200,000 | | 1,672,440 |

Schedule 2 - Translation of Depreciation Expense

| | | | |
|---|---|---|---|
| Buildings | 45,000 | .7924 | 35,658 |
| Equipment on hand - 1/1 | 85,000 | .7924 | 67,354 |
| Equipment purchased - 7/1 | 10,000 | .7412 | 7,412 |
| Total | 140,000 | | 110,424 |

*Translation rate is the January 1, 2008 rate, the date the equity interest was acquired, rather than the $.7480 rate in effect when the inventory was purchased.

**Problem 13-2 (continued)**

| | | New Zealand $ | Translation Rate | U.S. $ |
|---|---|---|---|---|
| **Part B** | Exposed net monetary liability position - 1/1 (295,000 + 600,000 – 500,000) | 395,000 | $.7924 | 312,998 |
| | Less: Increase in cash and receivables from sales | (3,225,000) | .7480 | (2,412,300) |
| | Add: Decrease in monetary assets or increase in monetary liabilities: | | | |
| | Purchases | 2,100,000 | .7480 | 1,570,800 |
| | Other expenses | 540,000 | .7480 | 403,920 |
| | Dividends - 7/1 | 50,000 | .7412 | 37,060 |
| | 12/31 | 50,000 | .7298 | 36,490 |
| | Purchase of equipment - 7/1 | 100,000 | .7412 | 74,120 |
| | Net monetary liability position translation using rates in effect at date of each transaction | | | 23,088 |
| | Exposed net monetary liability position - 12/31 (210,000 + 680,000 – 880,000) | 10,000 | .7298 | 7,298 |
| | Translation gain (reported on the Income Statement) | | | 15,790 |

**Problem 13-3**

| | | Francs | Translation Rate | U.S.$ |
|---|---|---|---|---|
| **Part A** | **Consolidated Statement of Income and Retained Earnings** | | | |
| | Sales | 3,775,000 | $.176 | 664,400 |
| | Cost of Goods Sold | 2,312,500 | .176 | 407,000 |
| | Depreciation Expense | 125,000 | .176 | 22,000 |
| | Other Expense | 818,750 | .176 | 144,100 |
| | Income Tax Expense | 102,500 | .176 | 18,040 |
| | Net Income | 416,250 | | 73,260 |
| | Retained Earnings - 1/1 | 513,000 | Given | 75,948 |
| | | 929,250 | | 149,208 |
| | Less: Dividends Declared | 375,000 | .18 | 67,500 |
| | Retained Earnings - 12/31 | 554,250 | | 81,708 |

**Problem 13-3 (continued)**

**Balance Sheet**

| | | | |
|---|---|---|---|
| Cash | 962,500 | $.19 | 182,875 |
| Accounts Receivable | 660,000 | .19 | 125,400 |
| Inventories | 1,037,500 | .19 | 197,125 |
| Land | 500,000 | .19 | 95,000 |
| Buildings (net) | 550,000 | .19 | 104,500 |
| Equipment (net) | 405,000 | .19 | 76,950 |
| | 4,115,000 | | 781,850 |
| | | | |
| Accounts Payable | 800,000 | .19 | 152,000 |
| Short-term Notes Payable | 650,750 | .19 | 123,643 |
| Bonds Payable | 850,000 | .19 | 161,500 |
| Common Stock | 960,000 | .15 | 144,000 |
| Additional Paid-in Capital | 300,000 | .15 | 45,000 |
| Retained Earnings | 554,250 | | 81,708 |
| Cumulative Translation Adjustment (Credit) | --- | | 73,999 |
| | 4,115,000 | | 781,850 |

**Part B** Verification of the Translation Adjustment

| | Francs | Translation Rate | U.S.$ |
|---|---|---|---|
| Exposed net asset position - 1/1 | 1,773,000* | $.17 | 301,410 |
| Adjustments for changes in net asset position during the year: | | | |
| Net income for the year | 416,250 | .176 | 73,260 |
| Dividends declared | (375,000) | .18 | (67,500) |
| Net asset position translated using rate in effect at date of transaction | --- | | 307,170 |
| Exposed net asset position - 12/31 | 1,814,250 | .19 | 344,708 |
| Change in cumulative translation adjustment during the year - net increase | | | 37,538 |
| Cumulative translation adjustment - 1/1 (Given) | | | 36,462 |
| Cumulative translation adjustment - 12/31 (Credit balance) | | | 74,000** |

** Difference of $1.00 ($74,000 compared to $73,999) due to rounding.

| | | |
|---|---|---|
| *Common stock | 960,000 | |
| Additional paid-in capital | 300,000 | |
| Retained earnings | 513,000 | |
| | | 1,773,000 |

**Problem 13-3 (continued)**

| | | Francs | $ |
|---|---|---|---|
| **Part C** | Current ratio | $\frac{2{,}660{,}000}{1{,}450{,}750} = 1.83$ | $\frac{505{,}400}{275{,}643} = 1.83$ |
| | Debt to equity | $\frac{2{,}300{,}750}{1{,}814{,}250} = 1.27$ | $\frac{437{,}143}{344{,}707} = 1.27$ |
| | Gross profit percentage | $\frac{1{,}462{,}500}{3{,}775{,}000} = 38.7\%$ | $\frac{257{,}400}{664{,}400} = 38.7\%$ |
| | Net income to sales | $\frac{416{,}250}{3{,}775{,}000} = 11.0\%$ | $\frac{73{,}260}{664{,}400} = 11.0\%$ |

**Problem 13-4**

| | | Francs | Translation Rate | U.S.$ |
|---|---|---|---|---|
| **Part A** | **Balance Sheet** | | | |
| | Cash | 962,500 | $.19 | 182,875 |
| | Accounts Receivable | 660,000 | .19 | 125,400 |
| | Inventories (FIFO Cost) | 1,037,500 | Schedule 1 | 191,938 |
| | Land | 500,000 | .15 | 75,000 |
| | Buildings (net) | 550,000 | .15 | 82,500 |
| | Equipment (net) | 405,000 | .15 | 60,750 |
| | Total | 4,115,000 | | 718,463 |
| | | | | |
| | Accounts Payable | 800,000 | .19 | 152,000 |
| | Short-term Notes Payable | 650,750 | .19 | 123,643 |
| | Bonds Payable | 850,000 | .19 | 161,500 |
| | Common Stock | 960,000 | .15 | 144,000 |
| | Additional Paid-in Capital | 300,000 | .15 | 45,000 |
| | Retained Earnings | 554,250 | | 92,320 |
| | Total | 4,115,000 | | 718,463 |

**Problem 13-4 (continued)**

| **Consolidated Income and Retained Earnings Statement** | Francs | Translation Rate | U.S.$ |
|---|---|---|---|
| Sales | 3,775,000 | $.176 | 664,400 |
| Cost of Goods Sold | 2,312,500 | Schedule 1 | 388,532 |
| Depreciation Expense | 125,000 | .15 | 18,750 |
| Other Expense | 818,750 | .176 | 144,100 |
| Income Tax Expense | 102,500 | .176 | 18,040 |
| | 416,250 | | 94,978 |
| Translation Loss | | Balancing Amt. | 11,818 |
| Net Income | 416,250 | | 83,160 |
| Retained Earnings - 1/1 | 513,000 | Given | 76,660 |
| | 929,250 | | 159,820 |
| Less: Dividends Declared | 375,000 | .18 | 67,500 |
| Retained Earnings - 12/31 | 554,250 | | 92,320 |

| Schedule 1 | Francs | Translation Rate | U.S.$ |
|---|---|---|---|
| Beginning inventory | 830,000 | .165 | 136,950 |
| Purchases | 2,520,000 | .176 | 443,520 |
| Goods available | 3,350,000 | | 580,470 |
| Ending inventory | 1,037,500 | .185 | 191,938 |
| Cost of goods sold | 2,312,500 | | 388,532 |

**Problem 13-4 (continued)**

**Part B** Verification of the Translation Loss

| | Francs | Translation Rate | U.S.$ |
|---|---|---|---|
| Exposed net monetary liability position - 1/1 | 637,000 | .17 | 108,290 |
| Adjustments for changes in net monetary position during the year: | | | |
| Less: Increase in cash and receivables from sales | (3,775,000) | .176 | (664,400) |
| Add: Decrease in monetary assets or increase in monetary liabilities from operations: | | | |
| Purchases | 2,520,000 | .176 | 443,520 |
| Other expenses | 818,750 | .176 | 144,100 |
| Income taxes | 102,500 | .176 | 18,040 |
| Dividends declared | 375,000 | .18 | 67,500 |
| Net monetary liability position translated using rate in effect at date of transaction | --- | | 117,050 |
| Exposed net monetary liability position - 12/31 | 678,250* | .19 | 128,868 |
| Translation Loss | | | (11,818) |

*End of Year:

| | | |
|---|---|---|
| Monetary assets | 962,500 + 660,000 = | 1,622,500 |
| Monetary liabilities | 800,000 + 650,750 + 850,000 = | 2,300,750 |
| Net monetary liability position | | 678,250 |

## Problem 13-5

| | | | Canadian $ | Translation Rate | U.S.$ |
|---|---|---|---|---|---|
| **Part A** | (1) | Equipment: | | | |
| | | Drill press | 30,000 | $.8430 | 25,290 |
| | | Stamping press | 80,000 | .7360 | 58,880 |
| | | Fork lift | 42,000 | .6998 | 29,392 |
| | | Total | 152,000 | | 113,562 |
| | | Accumulated depreciation: | | | |
| | | Drill press (30,000/5 × 4) | 24,000 | .8430 | 20,232 |
| | | Stamping press (80,000/4 × 3) | 60,000 | .7360 | 44,160 |
| | | Fork lift (42,000/6) | 7,000 | .6998 | 4,899 |
| | | Total | 91,000 | | 69,291 |
| | | Equipment | | | 113,562 |
| | | Less: Accumulated depreciation | | | 69,291 |
| | | Net | | | 44,271 |
| | (2) | Ending inventory | 60,000 | .6845 | 41,070 |
| | (3) | Marketable securities | 30,000 | .9320 | 27,960 |
| **Part B** | | Depreciation expense: | | | |
| | | Drill press | 6,000 | $.8430 | 5,058 |
| | | Stamping press | 20,000 | .7360 | 14,720 |
| | | Fork lift | 7,000 | .6998 | 4,899 |
| | | Total depreciation | | | 24,677 |
| | | Beginning inventory | 60,000 | .7322 | 43,932 |
| | | Purchases | 400,000 | .7140 | 285,600 |
| | | Goods available for sale | 460,000 | | 329,532 |
| | | Ending inventory | 60,000 | .6845 | 41,070 |
| | | Cost of goods sold | 400,000 | | 288,462 |

**Problem 13-5 (continued)**

| | | | Canadian $ | Translation Rate | U.S.$ |
|---|---|---|---|---|---|
| **Part C** | (1) | Equipment: | | | |
| | | Drill press | 30,000 | | |
| | | Stamping press | 80,000 | | |
| | | Fork lift | 42,000 | | |
| | | Total | 152,000 | $.6960 | 105,792 |
| | | | | | |
| | | Accumulated depreciation: | | | |
| | | Drill press | 24,000 | | |
| | | Stamping press | 60,000 | | |
| | | Fork lift | 7,000 | | |
| | | Total | 91,000 | .6960 | 63,336 |
| | | Net | | | 42,456 |
| | | | | | |
| | (2) | Inventory | 60,000 | .6960 | 41,760 |
| | | | | | |
| | (3) | Marketable securities | 30,000 | .6960 | 20,880 |
| | | | | | |
| | (4) | Depreciation expense: | | | |
| | | Drill press | 6,000 | | |
| | | Stamping press | 20,000 | | |
| | | Fork lift | 7,000 | | |
| | | Total depreciation | 33,000 | .7140 | 23,562 |
| | | | | | |
| | (5) | Beginning inventory | 60,000 | | |
| | | Purchases | 400,000 | | |
| | | Goods available for sale | 460,000 | | |
| | | Ending inventory | 60,000 | | |
| | | Cost of goods sold | 400,000 | .7140 | 285,600 |

| **Part D** | | Current Rate Method | Temporal Method | Difference: Effect on Income |
|---|---|---|---|---|
| | Depreciation expense | $ 23,562 | $ 24,677 | $ 1,115 |
| | Cost of goods sold | 285,600 | 288,462 | 2,862 |
| | Total | $309,162 | $313,139 | $ 3,977 |
| | | | 309,162 | |
| | Difference | | $ 3,977 | |

Net income is increased under the current rate method because depreciation expense and cost of goods sold are translated using the average rate for 2008 which is lower than the historical rates used under the temporal method. Therefore, expenses in dollars are smaller under the current rate method.

## Problem 13-6A

**Part A** See Problem 13-3.

| | | | |
|---|---|---|---|
| **Part B** | Cash ((375,000 × $.18) × .80) | 54,000 | |
| | Dividend Income | | 54,000 |

**Part C** Supporting Entries (the workpaper is on a following page)

Elimination Entries:

| | | | |
|---|---|---|---|
| (1) | Investment in SFr Company | 3,158 | |
| | Beginning Retained Earnings - P Company | | 3,158 |
| | ($75,948 - $72,000) × .80 = $3,158 | | |
| (2) | Dividend Income | 54,000 | |
| | Dividends Declared | | 54,000 |
| (3) | Retained Earnings - 1/1 SFr Company | 75,948 | |
| | Common Stock - SFr Company | 144,000 | |
| | Additional Paid-in Capital - SFr Company | 45,000 | |
| | Difference Between Implied and Book Value | 114,000 | |
| | Investment in SFr Company ($300,000 + $3,158) | | 303,158 |
| | Noncontrolling interest | | 75,790 |
| (4) | Cumulative Translation Adjustment - SFr Company ($73,999 × .80) | 59,199 | |
| | Cumulative Translation Adjustment - P Company | | 59,199 |
| (5) | Beginning Retained Earnings - P Company (1st yr's depreciation*) | 4,680 | |
| | Noncontrolling Interest (37,500 × $.156) x .20 | 1,170 | |
| | Depreciation Expense (current yr's depreciation) ($37,500 × $.176) | 6,600 | |
| | Land ($385,000 × .19) | 73,150 | |
| | Buildings, net (unamortized balance) ($300,000 × .19) | 57,000 | |
| | Cumulative Translation Adjustment ($13,200 + $15,400) | | 28,600 |
| | Difference Between Implied and Book Value | | 114,000 |

* (37,500 × $.156) x .80

**Problem 13-6A (continued)**

Supporting computations for eliminating entries

| | | Francs | Translation<br>Rate | U.S.$ |
|---|---|---|---|---|
| Implied value of investment (2,000,000/.80) | | 2,500,000 | $.15 | 375,000 |
| Book value of net assets | | | | |
| Common stock | 960,000 | | | |
| Additional paid-in capital | 300,000 | | | |
| Retained earnings | 480,000 | | | |
| Net assets | 1,740,000 | 1,740,000 | .15 | 261,000 |
| Difference between implied and book value | | 760,000 | .15 | 114,000 |
| Land | | (385,000) | .15 | (57,750) |
| Building | | (375,000) | .15 | (56,250) |
| Excess of cost over fair value | | 0 | | 0 |
| | | | | |
| Undervalued building | | 375,000 | .15 | 56,250 |
| Amortization - Prior year | | (37,500) | .156 | (5,850) |
| - 2009 | | (37,500) | .176 | (6,600) |
| Building translated using rate in effect at date of transaction | | | | 43,800 |
| Unamortized balance - 12/31/2009 | | 300,000 | .19 | 57,000 |
| Cumulative translation adjustment | | | | 13,200 |
| | | | | |
| Land - Date of acquisition | | 385,000 | .15 | 57,750 |
| - 12/31/2009 | | 385,000 | .19 | 73,150 |
| Cumulative translation adjustment | | | | 15,400 |

Total adjustment - $13,200 + $15,400 = $28,600

**Problem 13-6A (continued)**

P COMPANY AND SUBSIDIARY
Consolidated Statement Workpaper
For the Year Ended December 31, 2009

| | P | SFr | Eliminations | | Noncontrolling | Consolidated |
|---|---|---|---|---|---|---|
| | Company | Company | Dr. | Cr. | Interest | Balances |
| **Income Statement** | | | | | | |
| Sales | 4,200,000 | 664,400 | | | | 4,864,400 |
| Dividend Income | 54,000 | | (2) 54,000 | | | |
| Total Revenues | 4,254,000 | 664,400 | | | | 4,864,400 |
| Cost of Goods Sold | 2,720,000 | 407,000 | | | | 3,127,000 |
| Depreciation Expense | 210,000 | 22,000 | (5) 6,600 | | | 238,600 |
| Other Expense | 914,000 | 144,100 | | | | 1,058,100 |
| Income Tax Expense | 100,000 | 18,040 | | | | 118,040 |
| Total Expenses | 3,944,000 | 591,140 | | | | 4,541,740 |
| Net Income | 310,000 | 73,260 | | | | 322,660 |
| Noncontrolling Interest | | | | | 13,332* | (13,332) |
| Net Income to Retained Earnings | 310,000 | 73,260 | 60,600 | --- | 13,332 | 309,328 |
| | | | | | | |
| **Retained Earnings Statement** | | | | | | |
| Retained Earnings - 1/1 | | | | | | |
| P Company | 544,400 | | (5) 4,680 | (1) 3,158 | | 542,878 |
| SFr Company | | 75,948 | (3) 75,948 | | | |
| Net Income from Above | 310,000 | 73,260 | 60,600 | | 13,332 | 309,328 |
| Dividends Declared | | | | | | |
| P Company | (200,000) | | | | | (200,000) |
| SFr Company | | (67,500) | | (2) 54,000 | (13,500) | |
| Retained Earnings to Balance Sheet - 12/31 | 654,400 | 81,708 | 141,228 | 57,158 | (168) | 652,206 |

*($73,260- $6,600) x 20%

| **Problem 13-6A (continued)** | P<br>Company | SFr<br>Company | Eliminations<br>Dr. | <br>Cr. | Noncontrolling<br>Interest | Consolidated<br>Balances |
|---|---|---|---|---|---|---|
| **Balance Sheet** | | | | | | |
| Cash | 500,200 | 182,875 | | | | 683,075 |
| Accounts Receivable | 516,400 | 125,400 | | | | 641,800 |
| Inventories (FIFO Cost) | 627,800 | 197,125 | | | | 824,925 |
| Investment in SFr Company | 300,000 | | (1) 3,158 | (3) 303,158 | | --- |
| Land | 450,000 | 95,000 | (5) 73,150 | | | 618,150 |
| Buildings (net) | 610,000 | 104,500 | (5) 57,000 | | | 771,500 |
| Equipment (net) | 290,000 | 76,950 | | | | 366,950 |
| Difference between Implied & Book Value | --- | --- | (3) 114,000 | (5) 114,000 | | |
| Total Assets | 3,294,400 | 781,850 | | | | 3,906,400 |
| | | | | | | |
| Accounts Payable | 540,000 | 152,000 | | | | 692,000 |
| Short-Term Notes Payable | 300,000 | 123,643 | | | | 423,643 |
| Bonds Payable | 700,000 | 161,500 | | | | 861,500 |
| Common Stock | | | | | | |
| P Company | 800,000 | | | | | 800,000 |
| SFr Company | | 144,000 | (3) 144,000 | | | |
| Additional Paid-in Capital | | | | | | |
| P Company | 300,000 | | | | | 300,000 |
| SFr Company | | 45,000 | (3) 45,000 | | | |
| Cumulative Translation Adjustment | | | | | | |
| P Company | --- | | | (4) 59,199 | | |
| | | | | (5) 28,600 | | 87,799 |
| SFr Company | | 73,999 | (4) 59,199 | | 14,800 | |
| Retained Earnings | 654,400 | 81,708 | 141,228 | 57,158 | (168) | 652,206 |
| 1/1 Noncontrolling interest | | | (5) 1,170 | (3) 75,790 | 74,620 | |
| 12/31 Noncontrolling interest | | | | | 89,252 | 89,252 |
| Total Liabilities and Equity | 3,294,400 | 781,850 | 637,905 | 637,905 | | 3,906,400 |

## Problem 13-7A

**Part A** See Problem 13-4.

**Part B**

| | | |
|---|---|---|
| Cash ((375,000 × $.18) × .80) | 54,000 | |
| Dividend Income | | 54,000 |

**Part C** Supporting Entries (the workpaper is on a following page)

Elimination Entries

| | | |
|---|---|---|
| (1) Investment in SFr Company | 3,728 | |
| Beginning Retained Earnings - P Company | | 3,728 |

| | | |
|---|---|---|
| Retained earnings - 1/1/2009 | $76,660 | |
| Retained earnings - Date of acquisition | 72,000 | |
| Undistributed net income | $ 4,660 | × .8 = 3,728 |

| | | |
|---|---|---|
| (2) Dividend Income | 54,000 | |
| Dividends Declared | | 54,000 |

| | | |
|---|---|---|
| (3) Beginning Retained Earnings - SFr Company | 76,660 | |
| Common Stock - SFr Company | 144,000 | |
| Additional Paid-In Capital - SFr Company | 45,000 | |
| Difference Between Implied and Book Value | 114,000 | |
| Investment in SFr Company ($300,000 + $3,728) | | 303,728 |
| Noncontrolling interest | | 75,932 |

| | | |
|---|---|---|
| (4) Beginning Retained Earnings - P Company | 4,500 | |
| Noncontrolling interest (37,500 x $.15) x .20 | 1,125 | |
| Depreciation Expense | 5,625 | |
| Land | 57,750 | |
| Building | 45,000 | |
| Difference Between Implied and Book Value | | 114,000 |

Supporting computations:

Depreciation expense per year $\frac{375,000}{10} \times \$.15 = 37,500 \times \$.15 = \$5,625$

Unamortized balance - 12/31/2009

Land 385,000 × $.15 = $57,750

Building 375,000 - 37,500 - 37,500 = 300,000 × $.15 = $45,000

**Problem 13-7A (continued)**

P COMPANY AND SUBSIDIARY
Consolidated Statement Workpaper
For the Year Ended December 31, 2009

| | P | SFr | Eliminations | | Noncontrolling | Consolidated |
|---|---|---|---|---|---|---|
| | Company | Company | Dr. | Cr. | Interest | Balances |
| **Income Statement** | | | | | | |
| Sales | 4,200,000 | 664,400 | | | | 4,864,400 |
| Dividend Income | 54,000 | | (2) 54,000 | | | --- |
| Total Revenues | 4,254,000 | 664,400 | | | | 4,864,400 |
| Cost of Goods Sold | 2,720,000 | 388,532 | | | | 3,108,532 |
| Depreciation Expense | 210,000 | 18,750 | (4) 5,625 | | | 234,375 |
| Other Expenses | 914,000 | 144,100 | | | | 1,058,100 |
| Income Tax Expense | 100,000 | 18,040 | | | | 118,040 |
| Total Expenses | 3,944,000 | 569,422 | | | | 4,519,047 |
| Translation Loss | | 11,818 | | | | 11,818 |
| Net Income | 310,000 | 83,160 | | | | 333,535 |
| Noncontrolling Interest | | | | | 15,507 | (15,507) |
| Net Income to Retained Earnings | 310,000 | 83,160 | 59,625 | --- | 15,507 | 318,028 |
| **Retained Earnings Statement** | | | | | | |
| Retained Earnings - 1/1 | | | | | | |
| P Company | 544,400 | | (4) 4,500 | (1) 3,728 | | 543,628 |
| SFr Company | | 76,660 | (3) 76,660 | | | |
| Net Income from Above | 310,000 | 83,160 | 59,625 | | 15,507 | 318,028 |
| Dividends Declared | | | | | | |
| P Company | (200,000) | | | | | (200,000) |
| SFr Company | | (67,500) | | (2) 54,000 | (13,500) | |
| Retained Earnings to Balance Sheet - 12/31 | 654,400 | 92,320 | 140,785 | 57,728 | 2,007 | 661,656 |

| **Problem 13-7A (continued)** | P | SFr | Eliminations | | Noncontrolling | Consolidated |
|---|---|---|---|---|---|---|
| | Company | Company | Dr. | Cr. | Interest | Balances |
| **Balance Sheet** | | | | | | |
| Cash | 500,200 | 182,875 | | | | 683,075 |
| Accounts Receivable | 516,400 | 125,400 | | | | 641,800 |
| Inventories | 627,800 | 191,938 | | | | 819,738 |
| Investment in SFr Company | 300,000 | | (1) 3,728 | (3) 303,728 | | --- |
| Land | 450,000 | 75,000 | (4) 57,750 | | | 582,750 |
| Building (net) | 610,000 | 82,500 | (4) 45,000 | | | 737,500 |
| Equipment (net) | 290,000 | 60,750 | | | | 350,750 |
| Difference between Implied and Book Value | | | (3) 114,000 | (4) 114,000 | | |
| Total Assets | 3,294,400 | 718,463 | | | | 3,815,613 |
| Accounts Payable | 540,000 | 152,000 | | | | 692,000 |
| Short-Term Notes Payable | 300,000 | 123,643 | | | | 423,643 |
| Bonds Payable | 700,000 | 161,500 | | | | 861,500 |
| Common Stock | | | | | | |
| P Company | 800,000 | | | | | 800,000 |
| SFr Company | | 144,000 | (3) 144,000 | | | |
| Additional Paid-in Capital | | | | | | |
| P Company | 300,000 | | | | | 300,000 |
| SFr Company | | 45,000 | (3) 45,000 | | | |
| Retained Earnings from Above | 654,400 | 92,320 | 140,785 | 57,728 | 2,007 | 661,656 |
| 1/1 Noncontrolling Interest | | | (4) 1,125 | (3) 75,932 | 74,807 | |
| 12/31 Noncontrolling Interest | | | | | 76,814 | 76,814 |
| Total Liabilities & Owner's Equity | 3,294,400 | 718,463 | 551,388 | 551,388 | | 3,815,613 |

## Problem 13-8A

| | | Adjusted Trial Balance, Aus.$ | Translation Rate | Adjusted Trial Balance, U.S.$ |
|---|---|---|---|---|
| **Part A** | **Consolidated Income and Retained Earnings Statement** | | | |
| | Sales | 250,000 | $.7962 | 199,050 |
| | Cost of Goods Sold | 121,500 | .7962 | 96,738 |
| | Other Expenses | 51,750 | .7962 | 41,203 |
| | Net Income | 76,750 | | 61,109 |
| | Retained Earnings - 1/1 | 165,000 | .7935 | 130,928 |
| | | 241,750 | | 192,037 |
| | Dividends: 4/30 | 15,625 | .7899 | 12,342 |
| | 10/31 | 15,625 | .7910 | 12,359 |
| | Retained Earnings - 12/31 | 210,500 | | 167,336 |
| | **Balance Sheet** | | | |
| | Cash | 95,250 | .7575 | 72,152 |
| | Accounts Receivable | 106,250 | .7575 | 80,484 |
| | Inventory - 12/31 | 83,250 | .7575 | 63,062 |
| | Land | 187,500 | .7575 | 142,031 |
| | Buildings and Equipment | 250,000 | .7575 | 189,375 |
| | Accumulated Depreciation | (93,750) | .7575 | (71,016) |
| | Totals | 628,500 | | 476,088 |
| | Accounts Payable | 62,500 | .7575 | 47,344 |
| | Notes Payable | 15,000 | .7575 | 11,363 |
| | Capital Stock | 340,500 | .7935 | 270,187 |
| | Retained Earnings | 210,500 | | 167,336 |
| | Totals | 628,500 | | 496,230 |
| | Translation Adjustment - debit | | | (20,142) |
| | Totals | | | 476,088 |
| **Part B** | Exposed net asset position - 1/1 | 505,500 | .7935 | 401,114 |
| | Adjustment for changes in the net asset position during the year: | | | |
| | Add: Net income | 76,750 | .7962 | 61,108 |
| | Less: Dividends 4/30 | (15,625) | .7899 | (12,342) |
| | 10/31 | (15,625) | .7910 | (12,359) |
| | Net asset position translated using rate in effect at date of transactions | --- | | 437,521 |
| | Exposed net asset position - 12/31 | 551,000 | .7575 | 417,383 |
| | Translation adjustment - debit | | | 20,138* |

*Difference of $4 due to rounding.

**Problem 13-8A (continued)**

**Part C**

| | | |
|---|---|---|
| Investment in Nakima Company | 514,585 | |
| Cash (648,500 × $.7935) | | 514,585 |
| | | |
| Cash | 19,761 | |
| Dividend Income ($12,342 + $12,359) × .80 = $19,761 | | 19,761 |

**Part D**

Supporting schedules for workpaper entries

| Account | Difference | Useful Life | Amortization (Aus.$) | Translation Rate | Amortization (U.S.$) |
|---|---|---|---|---|---|
| Equipment | 73,875 | 5 | 14,775 | $.7962 | 11,764 |
| Land | 54,063 | --- | --- | --- | --- |
| Inventories | 27,187 | 1 | 27,187 | .7962 | 21,646 |
| Patent | 150,000 | 10 | 15,000 | .7962 | 11,943 |
| | 305,125 | | 56,962 | | 45,353 |

Other Expenses - $11,764 + $11,943 = $23,707

| | Aus.$ | | U.S.$ |
|---|---|---|---|
| Undervalued net assets at the beginning of the year | 305,125 | .7935 | 242,117 |
| Amortization this period | (56,962) | .7962 | (45,353) |
| Net asset position translated using the rate in effect at date of transaction | --- | | 196,763 |
| Unamortized balance at end of year | 248,163 | .7575 | 187,983 |
| Translation adjustment | | | (8,780) |

| | Beginning of Year | End of Year | Translation Rate | U.S. $ |
|---|---|---|---|---|
| Inventories | 27,187 | 0 | | |
| Equipment | 73,875 | 59,100 × | $.7575 | 44,768 |
| Land | 54,063 | 54,063 × | .7575 | 40,953 |
| Patent | 150,000 | 135,000 × | .7575 | 102,263 |
| | 305,125 | 248,163 | | 187,984 |

**Problem 13-8A (continued)**

BABBIT, INC. AND FOREIGN SUBSIDIARY
Consolidated Statement Workpaper
For the Year Ended December 31, 2008

| | Babbit Inc. | Nakima Company | Eliminations Dr. | Eliminations Cr. | Noncontrolling Interest | Consolidated Balances |
|---|---|---|---|---|---|---|
| **Income Statement** | | | | | | |
| Sales | 545,475 | 199,050 | | | | 744,525 |
| Dividend Income | 19,761 | | (3) 19,761 | | | |
| | 565,236 | 199,050 | | | | 744,525 |
| Cost of Goods Sold | 425,000 | 96,738 | (4) 21,646 | | | 543,384 |
| Other Expenses | 75,000 | 41,203 | (4) 23,707 | | | 139,910 |
| | 500,000 | 137,941 | | | | 683,294 |
| Net Income | 65,236 | 61,109 | | | | 61,231 |
| Noncontrolling Interest | | | | | | |
| (61,109 – 21,646 – 23,707) × .20 | | | | | 3,151 | (3,151) |
| Net Income to Retained Earnings | 65,236 | 61,109 | 65,114 | | 3,151 | 58,080 |
| **Retained Earnings Statement** | | | | | | |
| Retained Earnings - 1/1 | | | | | | |
| Babbit, Inc. | 325,000 | | | | | 325,000 |
| Nakima Company | | 130,928 | (1) 130,928 | | | |
| Net Income from Above | 65,236 | 61,109 | 65,114 | | 3,151 | 58,080 |
| Dividends Declared | | | | | | |
| Babbit, Inc. | (50,000) | | | | | (50,000) |
| Nakima Company | | (24,701) | | (3) 19,761 | (4,940) | |
| Retained Earnings to Balance Sheet - 12/31 | 340,236 | 167,336 | 196,042 | 19,761 | (1,789) | 333,080 |

**Problem 13-8A (continued)**

| | Babbit | Nakima | Eliminations | | Noncontrolling | Consolidated |
|---|---|---|---|---|---|---|
| | Inc. | Company | Dr. | Cr. | Interest | Balances |
| **Balance Sheet** | | | | | | |
| Cash | 65,885 | 72,152 | | | | 138,037 |
| Accounts Receivable | 150,116 | 80,484 | | | | 230,600 |
| Inventory | 115,000 | 63,062 | | | | 178,062 |
| Investment in Nakima Company | 514,585 | --- | | (1) 514,585 | | - |
| Land | 59,400 | 142,031 | (4) 40,953 | | | 242,384 |
| Buildings and Equipment | 200,000 | 189,375 | (4) 44,768 | | | 434,143 |
| Accumulated Depreciation | (125,000) | (71,016) | | | | |
| (196,016) | | | | | | |
| Difference between Implied and Book Value | --- | --- | (1) 242,117 | (4) 242,117 | | |
| Patent | | | (4) 102,263 | | | 102,263 |
| Totals | 979,986 | 476,088 | | | | 1,129,473 |
| | | | | | | |
| Accounts Payable | 14,750 | 47,344 | | | | 62,094 |
| Notes Payable | 25,000 | 11,363 | | | | 36,363 |
| Capital Stock | | | | | | |
| Babbit, Inc. | 600,000 | | | | | 600,000 |
| Nakima Company | | 270,187 | (1) 270,187 | | | |
| Translation Adjustment | | | | | | |
| Babbit, Inc. | | | (2) 16,114 | | | |
| | | | (4) 8,780 | | | (24,894) |
| Nakima Company | | (20,142) | | (2) 16,114 | (4,028) | |
| Retained Earnings from Above | 340,236 | 167,336 | 196,042 | | 19,761 | (1,789) |
| 333,080 | | | | | | |
| 1/1 Noncontrolling Interest | | | | (1) 128,647 | 128,647 | |
| 12/31 Noncontrolling Interest | | | | | 122,830 | 122,830 |
| Totals | 979,986 | 476,088 | 921,224 | | 921,224 | |
| 1,129,473 | | | | | | |

(1) To eliminate investment account and create noncontrolling interest account

(2) To recognize parent's share of cumulative translation adjustment

(3) To eliminate intercompany dividends

(4) To allocate the difference between implied and book value.

**Problem 13-9** **(This is the same problem as Problem 13-3)**

**Part A** **Consolidated Income and Retained Earnings Statement**

| | Francs | Translation Rate | U.S.$ |
|---|---|---|---|
| Sales | 3,775,000 | $.176 | 664,400 |
| Cost of Goods Sold | 2,312,500 | .176 | 407,000 |
| Depreciation Expense | 125,000 | .176 | 22,000 |
| Other Expense | 818,750 | .176 | 144,100 |
| Income Tax Expense | 102,500 | .176 | 18,040 |
| Net Income | 416,250 | | 73,260 |
| Retained Earnings - 1/1 | 513,000 | Given | 75,948 |
| | 929,250 | | 149,208 |
| Less: Dividends Declared | 375,000 | .18 | 67,500 |
| Retained Earnings - 12/31 | 554,250 | | 81,708 |

**Balance Sheet**

| | Francs | Translation Rate | U.S.$ |
|---|---|---|---|
| Cash | 962,500 | $.19 | 182,875 |
| Accounts Receivable | 660,000 | .19 | 125,400 |
| Inventories | 1,037,500 | .19 | 197,125 |
| Land | 500,000 | .19 | 95,000 |
| Buildings (net) | 550,000 | .19 | 104,500 |
| Equipment (net) | 405,000 | .19 | 76,950 |
| Totals | 4,115,000 | | 781,850 |
| | | | |
| Accounts Payable | 800,000 | .19 | 152,000 |
| Short-Term Notes Payable | 650,750 | .19 | 123,643 |
| Bonds Payable | 850,000 | .19 | 161,500 |
| Common Stock | 960,000 | .15 | 144,000 |
| Additional Paid-in Capital | 300,000 | .15 | 45,000 |
| Retained Earnings | 554,250 | | 81,708 |
| Cumulative Translation Adjustment (Credit) | --- | | 73,999 |
| Totals | 4,115,000 | | 781,850 |

**Problem 13-9 (continued)**

**Part B** Verification of the Translation Adjustment

| | Francs | Translation Rate | U.S.$ |
|---|---|---|---|
| Exposed net asset position - 1/1 | 1,773,000* | $.17 | 301,410 |
| Adjustments for changes in net asset position during the year: | | | |
| Net income for the year | 416,250 | .176 | 73,260 |
| Dividends declared | (375,000) | .18 | (67,500) |
| Net asset position translated using rate in effect at date of transaction | --- | | 307,170 |
| Exposed net asset position - 12/31 | 1,814,250 | .19 | 344,708 |
| Change in cumulative translation adjustment during the year - net increase | | | 37,538 |
| Cumulative translation adjustment - 1/1 (Given) | | | 36,462 |
| Cumulative translation adjustment - 12/31 (Credit balance) | | | 74,000** |

**Difference of $1.00 ($74,000 compared to $73,999) due to rounding.

| | |
|---|---|
| *Common stock | 960,000 |
| Additional paid-in capital | 300,000 |
| Retained earnings | 513,000 |
| | 1,773,000 |

| | Francs | $ |
|---|---|---|
| **Part C** Current ratio | $\frac{2,660,000}{1,450,750} = 1.83$ | $\frac{505,400}{275,643} = 1.83$ |
| Debt to equity | $\frac{2,300,750}{1,814,250} = 1.27$ | $\frac{437,142}{344,707} = 1.27$ |
| Gross profit percentage | $\frac{1,462,500}{3,775,000} = 38.7\%$ | $\frac{257,400}{664,400} = 38.7\%$ |
| Net income to sales | $\frac{416,250}{3,775,000} = 11.0\%$ | $\frac{73,260}{664,400} = 11.0\%$ |

## Problem 13-10

**Part A**

| Balance Sheet | Francs | Translation Rate | U.S.$ |
|---|---|---|---|
| Cash | 962,500 | .19 | 182,875 |
| Accounts Receivable | 660,000 | .19 | 125,400 |
| Inventories (FIFO Cost) | 1,037,500 | Schedule 1 | 191,938 |
| Land | 500,000 | .15 | 75,000 |
| Buildings (net) | 550,000 | .15 | 82,500 |
| Equipment (net) | 405,000 | .15 | 60,750 |
| Total | 4,115,000 | | 718,463 |
| | | | |
| Accounts Payable | 800,000 | .19 | 152,000 |
| Short-Term Notes Payable | 650,750 | .19 | 123,643 |
| Bonds Payable | 850,000 | .19 | 161,500 |
| Common Stock | 960,000 | .15 | 144,000 |
| Additional Paid-in Capital | 300,000 | .15 | 45,000 |
| Retained Earnings | 554,250 | | 92,320 |
| Total | 4,115,000 | | 718,463 |

| Consolidated Statement of Income and Retained Earnings | Francs | Translation Rate | U.S.$ |
|---|---|---|---|
| Sales | 3,775,000 | $.176 | 664,400 |
| Cost of Goods Sold | 2,312,500 | Schedule 1 | 388,532 |
| Depreciation Expense | 125,000 | .15 | 18,750 |
| Other Expense | 818,750 | .176 | 144,100 |
| Income Tax Expense | 102,500 | .176 | 18,040 |
| | 416,250 | | 94,978 |
| Translation Loss | | Balancing Amt. | 11,818 |
| Net Income | 416,250 | | 83,160 |
| Retained Earnings - 1/1 | 513,000 | | 76,660 |
| | 929,250 | | 159,820 |
| Less: Dividends Declared | 375,000 | .18 | 67,500 |
| Retained Earnings - 12/31 | 554,250 | | 92,320 |

| Schedule 1 | Francs | Translation Rate | U.S.$ |
|---|---|---|---|
| Beginning inventory | 830,000 | .165 | 136,950 |
| Purchases | 2,520,000 | .176 | 443,520 |
| Goods available | 3,350,000 | | 580,470 |
| Ending inventory | 1,037,500 | .185 | 191,938 |
| Cost of goods sold | 2,312,500 | | 388,532 |

**Problem 13-10 (continued)**

**Part B** Verification of the Translation Loss

| | Francs | Translation Rate | U.S.$ |
|---|---|---|---|
| Exposed net monetary liability position - 1/1 | 637,000 | .17 | 108,290 |
| Adjustments for changes in net monetary position during the year: | | | |
| Less: Increase in cash and receivables from sales | (3,775,000) | .176 | (664,400) |
| Add: Decrease in monetary assets or increase in monetary liabilities from operations: | | | |
| Purchases | 2,520,000 | .176 | 443,520 |
| Other expenses | 818,750 | .176 | 144,100 |
| Income taxes | 102,500 | .176 | 18,040 |
| Dividends declared | 375,000 | .18 | 67,500 |
| Net monetary liability position translated using rate in effect at date of transaction | --- | | 117,050 |
| Exposed net monetary liability position - 12/31 | 678,250* | .19 | 128,868 |
| Translation Loss | | | (11,818) |

*End of Year:

| | | |
|---|---|---|
| Monetary assets | 962,500 + 660,000 = | 1,622,500 |
| Monetary liabilities | 800,000 + 650,750 + 850,000 = | 2,300,750 |
| Net monetary liability position | | 678,250 |

## Problem 13-11A

**Part A** See Problem 13-9.

**Part B**

| | | |
|---|---|---|
| Cash ((375,000 × $.18) × .80) | 54,000 | |
| Investment in SFr Company | | 54,000 |
| | | |
| Investment in SFr Company | 53,328 | |
| Equity in Subsidiary Income | | 53,328 |

**Part C** Elimination Entries

| | | | |
|---|---|---|---|
| (1) | Equity Income | 53,328 | |
| | Investment in SFr Company | 672 | |
| | Dividends Declared | | 54,000 |
| | | | |
| (2) | Beginning Retained Earnings - SFr Company | 75,948 | |
| | Common Stock - SFr Company | 144,000 | |
| | Additional Paid-In Capital - SFr Company | 45,000 | |
| | Difference Between Implied and Book Value | 114,000 | |
| | Investment in SFr Company | | 303,158 |
| | Noncontrolling Interest | | 75,790 |
| | | | |
| (3) | Cumulative Translation Adjustment –SFr Company ($73,999 x .80) | 59,199 | |
| | Cumulative Translation Adjustment – P Company | | 59,199 |
| | | | |
| (4) | Investment in SFr Company (37,500 × $.156) x .80 | 4,680 | |
| | Noncontrolling interest (37,500 × $.156) x .20 | 1,170 | |
| | Depreciation Expense (37,500 × $.176) | 6,600 | |
| | Land (385,000 × $.19) | 73,150 | |
| | Building (300,000 × $.19) | 57,000 | |
| | Difference Between Implied and Book Value | | 114,000 |
| | Cumulative Translation Adjustment ($13,200 + $15,400) | | 28,600 |

:

**Problem 13-11A (continued)**

Supporting computations for eliminating entries

| | | | Translation | |
|---|---|---|---|---|
| | | Francs | Rate | U.S.$ |
| Implied value of investment (2,000,000/.80) | | 2,500,000 | .15 | 375,000 |
| Book value of net assets | | | | |
| Common stock | 960,000 | | | |
| Additional paid-in capital | 300,000 | | | |
| Retained earnings | 480,000 | | | |
| Net assets | 1,740,000 | 1,740,000 | .15 | 261,000 |
| Difference between implied and book value | | 760,000 | .15 | 114,000 |
| Land | | (385,000) | .15 | (57,750) |
| Building | | (375,000) | .15 | (56,250) |
| Excess of cost over fair value | | 0 | | 0 |
| | | | | |
| Undervalued building | | 375,000 | .15 | 56,250 |
| Amortization - Prior year | | (37,500) | .156 | (5,850) |
| - 2012 | | (37,500) | .176 | (6,600) |
| Building translated using rate in effect at date of transaction | | | | 43,800 |
| Unamortized balance - 12/31/2012 | | 300,000 | .19 | 57,000 |
| Cumulative translation adjustment | | | | 13,200 |
| | | | | |
| Land - Date of acquisition | | 385,000 | .15 | 57,750 |
| - 12/31/2012 | | 385,000 | .19 | 73,150 |
| Cumulative translation adjustment | | | | 15,400 |

Total adjustment - $13,200 + $15,400 = $28,600

**Problem 13-11A (continued)**

| | P | SFr | | Eliminations | | | Noncontrolling | Consolidated |
|---|---|---|---|---|---|---|---|---|
| **Income Statement** | Company | Company | | Dr. | | Cr. | Interest | Balances |
| Sales | 4,200,000 | 664,400 | | | | | | 4,864,400 |
| Equity in Subsidiary Income | 53,328 | | (1) | 53,328 | | | | - |
| Total Revenues | 4,253,328 | 664,400 | | | | | | 4,864,400 |
| Cost of Goods Sold | 2,720,000 | 407,000 | | | | | | 3,127,000 |
| Depreciation Expense | 210,000 | 22,000 | (4) | 6,600 | | | | 238,600 |
| Other Expense | 914,000 | 144,100 | | | | | | 1,058,100 |
| Income Tax Expense | 100,000 | 18,040 | | | | | | 118,040 |
| Total Expenses | 3,944,000 | 591,140 | | | | | | 4,541,740 |
| Net Income | 309,328 | 73,260 | | | | | | 322,660 |
| Noncontrolling Interest | | | | | | | 13,332 | (13,332) |
| Net Income to Retained Earnings | 309,328 | 73,260 | | 59,928 | | - | 13,332 | 309,328 |
| **Retained Earnings Statement** | | | | | | | | |
| Retained Earnings - 1/1 | | | | | | | | |
| P Company | 542,878 | | | | | | | 542,878 |
| SFr Company | | 75,948 | (2) | 75,948 | | | | |
| Net Income from Above | 309,328 | 73,260 | | 59,928 | | - | 13,332 | 309,328 |
| Dividends Declared | | | | | | | | |
| P Company | (200,000) | | | | | | | (200,000) |
| SFr Company | | (67,500) | | | (1) | 54,000 | (13,500) | |
| Retained Earnings to<br>Balance Sheet - 12/31 | 652,206 | 81,708 | | 135,876 | | 54,000 | (168) | 652,206 |

| **Problem 13-11A (continued)** | P | SFr | Eliminations | | | | Noncontrolling | Consolidated |
|---|---|---|---|---|---|---|---|---|
| **Balance Sheet** | Company | Company | | Dr. | | Cr. | Interest | Balances |
| Cash | 500,200 | 182,875 | | | | | | 683,075 |
| Accounts Receivable | 516,400 | 125,400 | | | | | | 641,800 |
| Inventories (FIFO Cost) | 627,800 | 197,125 | | | | | | 824,925 |
| Investment in SFr Company | 297,806 | | (1) | 672 | (2) | 303,158 | | - |
| | | | (4) | 4,680 | | | | |
| Land | 450,000 | 95,000 | (4) | 73,150 | | | | 618,150 |
| Buildings (net) | 610,000 | 104,500 | (4) | 57,000 | | | | 771,500 |
| Equipment (net) | 290,000 | 76,950 | | | | | | 366,950 |
| Difference between Implied & Book Value | - | | (2) | 114,000 | (4) | 114,000 | | - |
| Total | 3,292,206 | 781,850 | | | | | | 3,906,400 |
| Accounts Payable | 540,000 | 152,000 | | | | | | 692,000 |
| Short-Term Notes Payable | 300,000 | 123,643 | | | | | | 423,643 |
| Bonds Payable | 700,000 | 161,500 | | | | | | 861,500 |
| Common Stock | | | | | | | | |
| P Company | 800,000 | | | | | | | 800,000 |
| SFr Company | | 144,000 | (2) | 144,000 | | | | |
| Additional Paid-In Capital | | | | | | | | |
| P Company | 300,000 | | | | | | | 300,000 |
| SFr Company | | 45,000 | (2) | 45,000 | | | | |
| Cumulative Translation Adjustment | | | | | | | | |
| P Company | | | | | (3) | 59,199 | | 87,799 |
| | | | | | (4) | 28,600 | | |
| SFr Company | | 73,999 | (3) | 59,199 | | | 14,800 | |
| Retained Earnings | 652,206 | 81,708 | | 135,876 | | 54,000 | (168) | 652,206 |
| 1/1 Noncontrolling Interest | | | (4) | 1,170 | (2) | 75,790 | 74,620 | |
| 12/31 Noncontrolling Interest | | | | | | | 89,252 | 89,252 |
| Total | 3,292,206 | 781,850 | | 634,747 | | 634,747 | | 3,906,400 |

## Problem 13-12A

**Part A** See Problem 13-10.

**Part B**

| | | |
|---|---|---|
| Cash ((375,000 × $.18) × .80) | 54,000 | |
| Investment in SFr Company | | 54,000 |
| | | |
| Investment in SFr Company | 53,328 | |
| Equity in Subsidiary Income | | 53,328 |

Elimination Entries

| | | | |
|---|---|---|---|
| (1) | Equity in Subsidiary Income | 62,028 | |
| | Dividends Declared | | 54,000 |
| | Investment in SFr Company | | 8,028 |
| | | | |
| (2) | Beginning Retained Earnings - SFr Company | 76,660 | |
| | Common Stock - SFr Company | 144,000 | |
| | Additional Paid-in Capital - SFr Company | 45,000 | |
| | Difference Between Implied and Book Value | 114,000 | |
| | Investment in SFr Company | | 303,728 |
| | Noncontrolling interest | | 75,932 |
| | | | |
| (3) | Investment in SFr Company | 4,500 | |
| | Noncontrolling interest (37,500 x $.15) x .20) | 1,125 | |
| | Depreciation Expense | 5,625 | |
| | Land | 57,750 | |
| | Building | 45,000 | |
| | Difference between Implied and Book Value | | 114,000 |

Supporting computations:

Depreciation expense per year $\frac{375,000}{10}$ × \$.15 = 37,500 × \$.15 = \$5,625

Unamortized balance - 12/31/2009

Land 385,000 × \$.15 = \$57,750

Building 375,000 - 37,500 - 37,500 = 300,000 × \$.15 = \$45,000

## Problem 13-12A (continued)

| **Part C** | P | SFr | Eliminations | | Noncontrolling | Consolidated |
|---|---|---|---|---|---|---|
| **Income Statement** | Company | Company | Dr. | Cr. | Interest | Balances |
| Sales | 4,200,000 | 664,400 | | | | 4,864,400 |
| Equity in Subsidiary Income | 62,028 | - | (1) 62,028 | | | - |
| Total Revenues | 4,262,028 | 664,400 | | | | 4,864,400 |
| Cost of Goods Sold | 2,720,000 | 388,532 | | | | 3,108,532 |
| Depreciation Expense | 210,000 | 18,750 | (3) 5,625 | | | 234,375 |
| Other Expense | 914,000 | 144,100 | | | | 1,058,100 |
| Income Tax Expense | 100,000 | 18,040 | | | | 118,040 |
| Total Expenses | 3,944,000 | 569,422 | | | | 4,519,047 |
| Translation Loss | | 11,818 | | | | 11,818 |
| Net Income | 318,028 | 83,160 | | | | 333,535 |
| Noncontrolling Interest | | | | | 15,507 | (15,507) |
| Net Income to Retained Earnings | 318,028 | 83,160 | 67,653 | - | 15,507 | 318,028 |
| | | | | | | |
| **Retained Earnings Statement** | | | | | | |
| Retained Earnings - 1/1 | | | | | | |
| P Company | 543,628 | | | | | 543,628 |
| SFr Company | | 76,660 | (2) 76,660 | | | |
| Net Income from Above | 318,028 | 83,160 | 67,653 | - | 15,507 | 318,028 |
| Dividends Declared | | | | | | |
| P Company | (200,000) | | | | | (200,000) |
| SFr Company | | (67,500) | | (1) 54,000 | (13,500) | |
| Retained Earnings to Balance Sheet - 12/31 | 661,656 | 92,320 | 144,313 | 54,000 | 2,007 | 661,656 |

**Problem 13-12A (continued)**

| | P | SFr | Eliminations | | | | Noncontrolling | Consolidated |
|---|---|---|---|---|---|---|---|---|
| **Balance Sheet** | Company | Company | | Dr. | | Cr. | Interest | Balances |
| Cash | 500,200 | 182,875 | | | | | | 683,075 |
| Accounts Receivable | 516,400 | 125,400 | | | | | | 641,800 |
| Inventories (FIFO Cost) | 627,800 | 191,938 | | | | | | 819,738 |
| Investment in SFr Company | 307,256 | | (3) | 4,500 | (2) | 303,728 | | - |
| | | | | | (1) | 8,028 | | |
| Land | 450,000 | 75,000 | (3) | 57,750 | | | | 582,750 |
| Buildings (net) | 610,000 | 82,500 | (3) | 45,000 | | | | 737,500 |
| Equipment (net) | 290,000 | 60,750 | | | | | | 350,750 |
| Difference between Implied & Book Value | | | (2) | 114,000 | (3) | 114,000 | | - |
| Total Assets | 3,301,656 | 718,463 | | | | | | 3,815,613 |
| | | | | | | | | |
| Accounts Payable | 540,000 | 152,000 | | | | | | 692,000 |
| Short-Term Notes Payable | 300,000 | 123,643 | | | | | | 423,643 |
| Bonds Payable | 700,000 | 161,500 | | | | | | 861,500 |
| Common Stock | | | | | | | | |
| P Company | 800,000 | | | | | | | 800,000 |
| SFr Company | | 144,000 | (2) | 144,000 | | | | |
| Additional Paid-In Capital | | | | | | | | |
| P Company | 300,000 | | | | | | | 300,000 |
| SFr Company | | 45,000 | (2) | 45,000 | | | | |
| Retained Earnings | 661,656 | 92,320 | | 144,313 | | 54,000 | 2,007 | 661,656 |
| 1/1 Noncontrolling Interest | | | (3) | 1,125 | (2) | 75,932 | 74,807 | |
| 12/31 Noncontrolling Interest | | | | | | | 76,814 | 76,814 |
| Total Liabilities and Equity | 3,301,656 | 718,463 | | 555,688 | | 555,688 | | 3,815,613 |

# CHAPTER 14

## ANSWERS TO QUESTIONS

1. Segmented financial reports would have the most significance for a highly diversified company because the industries in which the company operates may have widely different rates of profitability, degrees of risk, and opportunities for growth. Thus, investors need information about these operating segments in order to make informed decisions.

2. Financial statement users need information about segments of a firm to aid in evaluating prospective investments. Different industries may have different rates of profitability, opportunities for growth, and types of risk. Segmented financial data aid the investor in determining the uncertainties surrounding the timing and amount of expected future cash flows and, therefore, aid in assessing the related risk of an investment.

3. ***Operating segment.*** A component of an enterprise that may earn revenues and incur expenses, about which separate financial information is evaluated regularly by the chief operating decision maker in deciding how to allocate resources and in assessing performance.

   ***Reportable segment.*** A segment considered to be significant to an enterprise's operations; specifically, one that has passed one of three 10% tests or has been identified as being reportable through other criteria (aggregation, for example).

4. A segment is an operating segment if it possesses the following characteristics. It engages in business activities that may earn revenues and incur expenses (including transactions with other components of the entity). The entity's chief operating decision maker (may be one individual or a group of executives) regularly reviews the component's operating results to assess its performance and make decisions about resources to be allocated to it. Discrete financial information is available.

   An operating segment is a significant segment if it meets one or more of the following tests:
   a) Its combined external and internal revenue is **10% or more** of the combined external and internal revenue of all reportable segments.

   b)The absolute amount of its reported profit or loss is **10% or more** of the *greater* absolute amount of:
   - the combined reported profit of all operating segments not reporting a loss.
   - the combined reported loss of all operating segments that reported a loss.

   c) Its assets are **10% or more** of the combined assets of all operating segments.

5. (a) ***Product or service disclosures***: revenues from external customers for each **product or service** or group of products or services, on the same basis as the general-purpose financial statements. This disclosure is not required if the reportable segments are structured around products or services.
   (b) ***Geographic area disclosures***: revenues from external customers and long-lived assets for the firm's country of domicile and for all other countries in total, also on the same basis as the general purpose financial statements; *and* revenues from external customers and long-lived assets for *each foreign country or group of foreign countries*, if material, along with the basis for allocating revenues (location of customer, where shipped, etc.). These disclosures are generally not required if the company's reportable segments have been organized around **geographic area**.
   (c) ***Major customer disclosures***: information about **major customers** for each customer representing **10% or more** of total enterprise revenues, including the amount of revenues and the segment(s) to which the revenue is traceable. A group of customers under common control is treated as a single customer, as are the various agencies of a government.

6. *SFAS No. 131* requires that segmental disclosures be included in interim reports. The extent of the disclosures depends upon whether the firm presents a complete set of financial statements for the interim period, or condensed financial statements. If the firm presents a complete set of statements, the interim disclosures are the same as presented above for reportable segments. If condensed statements are presented for interim periods, they should include the following for each reportable segment: revenues, including intersegment sales; profit or loss; disclosures of any changes in measurement bases for segmentation or components of profit or loss since the most recent annual report; any material changes in assets since the most recent annual report; and a reconciliation of income from continuing operations for the consolidated entity and for the total of the reportable segments.

7. Although the normal segment information disclosures need not be made, the financial statements should identify the industry in which the major portion of the firm's operations takes place.

8. The following items are disclosed only ***if*** they are included in the measures reviewed by the chief operating decision maker: revenues from external customers, revenues from other segments, interest revenue and expense, depreciation, depletion, and amortization expense, income tax expense, equity income from investments, extraordinary items, other unusual items, and other significant noncash items.

9. Information about the reportable segments of a firm may be included in its financial statements in any of the following ways:

   a. Within the body of the financial statements, with appropriate explanatory disclosures in the footnotes to the financial statements.

   b. Entirely in the footnotes to the financial statements.

   c. In a separate schedule that is included as an integral part of the financial statements.

10. The types of information that must be disclosed for each foreign country or geographic area (and for domestic operations) are:

    a. Revenue, with separate disclosure of sales to nonaffliliates and intracompany sales or transfers, along with the basis of accounting for intracompany sales and transfers and the nature and effect of any change in method.

    b. Operating profit or loss, or some other measure of profitability. A common measure of profitability must be used for all countries and/or geographic areas presented.

    c. Identifiable assets, using the same procedures for presenting operating segment information.

11. Foreign operations are defined as those located outside the United States (or other "home country") that produce revenue from sales to unaffiliated customers or from intra-enterprise sales or transfers between countries or geographic areas. Foreign operations do ***not***, however, include unconsolidated subsidiaries and investees. If operations are conducted in two or more foreign countries or geographic areas, information must be presented separately for each significant foreign country or geographic area and in the aggregate for all other foreign operations. Where the operations of some foreign countries are grouped into geographic areas, the groupings should be made on the basis of a consideration of (1) proximity, (2) economic affinity, (3) similarities of business environments, and (4) the nature, scale, and degree of interrelationship of the operations in the various countries.

12. Factors to be considered in grouping foreign operations into geographic areas are (1) proximity, (2) economic affinity, (3) similarities of business environments, and (4) the nature, scale, and degree of interrelationship of the operations in the various countries.

13. To provide information about the potential effects of dependency on one or more major customers, if **10% or more** of the revenue of a firm is derived from sales to any *single customer*, that fact and the amount of revenue from each such customer must be disclosed. Also, if **10% or more** of the revenue is derived from sales to the *federal government, a state government, a local government or a foreign government,* that fact and the amount of revenue must be disclosed. Disclosure should include the amount of sales to each customer and the reportable segment making the sales. Customer's names, however, need not be disclosed. These disclosures are required even if the firm has only one reportable segment.

14. ***Common costs.*** Operating expenses incurred by the enterprise for the benefit of more than one segment.

    ***General corporate expense.*** An expense incurred for the benefit of the corporation as a whole, which cannot be reasonably allocated to any segment.

15. The purpose of interim financial reporting is to present timely information for use by external users of financial statements. Publicly owned companies prepare quarterly reports that must be filed with the stock exchanges on which their stock is listed, and with the Securities and Exchange Commission.

16. Accountants who support the view that each interim period should stand alone as a basic accounting period believe that deferrals, accruals, and estimates at the end of each interim period should be determined by following essentially the same principles and judgments that apply to annual periods.

    Accountants who view interim periods as integral parts of annual periods believe that deferrals, accruals, and estimates at the end of each interim period should be affected by judgments made at the interim date as to results of operations for the balance of the annual period.

17. At the end of each interim period, the company should make its best estimate of the effective tax rate expected to be applicable for the full fiscal year. The rate determined should be used in providing for income taxes on a current year-to-date basis, giving effect to expected investment tax credit, foreign tax rates, percentage depletion, capital gain rates, and other available tax planning alternatives.

18. Change in estimates should be accounted for in the interim period in which the change is made.

19. Minimum disclosure requirements for interim reports are:

    (a) Sales or gross revenues, provisions for income taxes, extraordinary items, cumulative effect of a change in accounting principle, and net income;

    (b) Basic and diluted earnings per share;

    (c) Seasonal revenue, cost and expenses;

    (d) Changes in estimates;

    (e) Effect of a disposal of a segment;

    (f) Contingencies;

    (g) Changes in accounting principles;

    (h) Significant changes in financial position.

20. The general rule is that costs and expenses that are associated directly with or allocated to the products sold or to the services rendered for annual reporting purposes should be treated in a similar manner for interim reports.

**BUSINESS ETHICS SOLUTIONS**

Business ethics solutions are merely suggestions of points to address. The objective is to raise the students' awareness of the topics, and to invite discussion. In most cases, there is clear room for disagreement or conflicting viewpoints.

1. Information to be presented for each of a firm's reportable segments:
    - General information
    - Information about segment operating profit or loss
    - Information about segment assets
    - Information about the bases for measurement
    - Reconciliation (IAS 14 vs. SFAS 131) of segment amounts and consolidated amounts for revenue, profit or loss, assets, and significant other items.
    - Interim disclosures
    - Enterprise-wide disclosures
        1. Product or service disclosures
        2. Geographic area disclosures
        3. Major customer disclosures

2. Since the management currently measures profit and losses and asset allocation by restaurant concept, an abrupt change to presenting the segment information by geographical location only could be viewed as unethical. However, this area is one where the standards clearly leave the door open for subjectivity in interpretation. If management has a motivation for preferring to keep the information about the poorly performing restaurant private that is not counter to the objectives of the shareholders and other claim-holders (for example, prefers not to expose that information to competitors while a restructuring plan is implemented), then there could be ethical reasons for a shift in disclosure choices. According to *SFAS No. 131*, firms should segment their disclosures along the same lines that management uses in decision-making. This does not appear to be the case here. Thus, the CEO's decision to present the segment information by geographical location seems to be counter to the intent of segmental reporting, i.e., the unveiling of information that has been merged or buried in the consolidated data.

## ANALYZING FINANCIAL STATEMENTS SOLUTIONS

### AFS 14-1

1. GE organizes the segment data based on the nature of markets and customers.

2 and 3.

| REVENUES | 2005 | 2004 | 2003 | 2002 | 2001 | Growth Rate 2003-2005 |
|---|---|---|---|---|---|---|
| Infrastructure | $41,803 | $37,373 | $36,569 | $40,119 | $36,419 | 14.3% |
| Industrial | 32,631 | 30,722 | 24,988 | 26,154 | 26,101 | 30.6% |
| Healthcare | 15,153 | 13,456 | 10,198 | 8,955 | 8,409 | 48.6% |
| NBC Universal | 14,689 | 12,886 | 6,871 | 7,149 | 5,769 | 113.8% |
| Commercial Finance | 20,646 | 19,524 | 16,927 | 15,688 | 14,610 | 22.0% |
| Consumer Finance | 19,416 | 15,734 | 12,845 | 10,266 | 9,508 | 51.2% |
| Total segment revenues | 144,338 | 129,695 | 108,398 | 108,331 | 100,816 | 33.2% |

| SEGMENT PROFIT | 2005 | 2004 | 2003 | 2002 | 2001 |
|---|---|---|---|---|---|
| Infrastructure | $7,769 | $6,797 | $7,362 | $9,178 | $7,869 |
| Industrial | 2,559 | 1,833 | 1,385 | 1,837 | 2,642 |
| Healthcare | 2,665 | 2,286 | 1,701 | 1,546 | 1,498 |
| NBC Universal | 3,092 | 2,558 | 1,998 | 1,658 | 1,408 |
| Commercial Finance | 4,290 | 3,570 | 2,907 | 2,170 | 1,784 |
| Consumer Finance | 3,050 | 2,520 | 2,161 | 1,799 | 1,602 |
| Total segment profit | 23,425 | 19,564 | 17,514 | 18,188 | 16,803 |

| **Segment Profit Margin** | 2005 | 2004 | 2003 | 2002 | 2001 |
|---|---|---|---|---|---|
| Infrastructure | 18.6% | 18.2% | 20.1% | 22.9% | 21.6% |
| Industrial | 7.8% | 6.0% | 5.5% | 7.0% | 10.1% |
| Healthcare | 17.6% | 17.0% | 16.7% | 17.3% | 17.8% |
| NBC Universal | 21.0% | 19.9% | 29.1% | 23.2% | 24.4% |
| Commercial Finance | 20.8% | 18.3% | 17.2% | 13.8% | 12.2% |
| Consumer Finance | 15.7% | 16.0% | 16.8% | 17.5% | 16.8% |
| Total segment profit margin | 16.2% | 15.1% | 16.2% | 16.8% | 16.7% |

| **Segment Asset Turnover** | 2005 | 2004 | 2003 | 2002 | 2001 |
|---|---|---|---|---|---|
| Infrastructure | 0.467 | 0.451 | 0.480 | 9.580 | 9.248 |
| Industrial | 0.785 | 0.731 | 0.619 | 5.989 | 6.349 |
| Healthcare | 0.614 | 0.541 | 0.943 | 19.467 | 5.289 |
| NBC Universal | 0.471 | 0.377 | 0.591 | 25.996 | 4.852 |
| Commercial Finance | 0.108 | 0.106 | 0.098 | 2.891 | 3.195 |
| Consumer Finance | 0.122 | 0.104 | 0.121 | 54.317 | 43.816 |
| Total Segment Asset Turnover | 0.214 | 0.173 | 0.167 | 7.172 | 6.376 |

4.

**Segment Revenues to Total Revenues**

| | 2005 | 2004 | 2003 | 2002 | 2001 |
|---|---|---|---|---|---|
| Infrastructure | 29.0% | 28.8% | 33.7% | 37.0% | 36.1% |
| Industrial | 22.6% | 23.7% | 23.1% | 24.1% | 25.9% |
| Healthcare | 10.5% | 10.4% | 9.4% | 8.3% | 8.3% |
| NBC Universal | 10.2% | 9.9% | 6.3% | 6.6% | 5.7% |
| Commercial Finance | 14.3% | 15.1% | 15.6% | 14.5% | 14.5% |
| Consumer Finance | 13.5% | 12.1% | 11.8% | 9.5% | 9.4% |
| Total segment Revenues | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% |

**Segment Profit to Total Profit**

| | 2005 | 2004 | 2003 | 2002 | 2001 |
|---|---|---|---|---|---|
| Infrastructure | 33.2% | 34.7% | 42.0% | 50.5% | 46.8% |
| Industrial | 10.9% | 9.4% | 7.9% | 10.1% | 15.7% |
| Healthcare | 11.4% | 11.7% | 9.7% | 8.5% | 8.9% |
| NBC Universal | 13.2% | 13.1% | 11.4% | 9.1% | 8.4% |
| Commercial Finance | 18.3% | 18.2% | 16.6% | 11.9% | 10.6% |
| Consumer Finance | 13.0% | 12.9% | 12.3% | 9.9% | 9.5% |
| Total segment profits | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% |

The **infrastructure** segment generates the most revenue and profits to GE. It has been growing approximately 14% over the last three years. However, the profit margin percentage has been slowly declining over time (with the exception of 2004 to 2005).

The **industrial** segment has grown 30% over the last three years. While this segment has been increasing the amount of sales relative to assets, the profit margin ratio has been very erratic (ranging from 5.5% to 10.1%). This segment also contributes the second most amount of revenue to GE.

**Healthcare's** revenues have been growing 48% over the last three years and the profit margin has been very stable at around 17%.

**NBC Universal's** revenues grew at 114% over the last three years, but it is the smallest segment measured by revenues. Even though, this segment generates over a 20% profit margin.

**Commercial Finance's** revenues grew at 22% over the last three years. The profit margin ratio has been increasing every year for the last five years and is currently at 21%. This segment contributes the second largest amount of operating profit (after Infrastructure).

**Consumer Finance's** revenues grew at 51% but with declining profit margins. However, because of the growth in sales, this segment still has been contributing and increasingly larger amount of operating profit to GE.

5.

| | In Millions of Dollars | | | Percentage | | |
|---|---|---|---|---|---|---|
| | 2005 | 2004 | 2003 | 2005 | 2004 | 2003 |
| Revenues within US | 89,887 | 82,148 | 69,998 | 60.0% | 61.1% | 62.0% |
| Revenues Outside US | 59,815 | 52,233 | 42,888 | 40.0% | 38.9% | 38.0% |
| Plant & Equip. within US | 26,140 | 25,219 | 20,591 | 38.7% | 40.0% | 38.7% |
| Plant & Equip. outside US | 41,388 | 37,884 | 32,560 | 61.3% | 60.0% | 61.3% |

**AFS 14-1 (Concluded)**
In terms of both revenues and plant and equipment, the percentages from outside the US have been increasing steadily.

## ANSWERS TO EXERCISES

### Exercise 14-1

Segments A, C, and D are reportable segments because the amount of each of their operating profit or loss is more than 10% of the greater in absolute amount of the combined operating profit of all segments that did not incur a loss ($1,000) or the combined operating loss of all segments that did incur an operating loss($1,300). Thus, any segment with an operating profit or loss of $130 or more meets this test.

Segment B is not a reportable segment because its operating profit is less than 10% of $1,300.

### Exercise 14-2

| Segment | Segment Sales to Total Sales | % | Reportable Segment |
|---|---|---|---|
| V | $\frac{2,400}{4,875}$ | 49 | Yes |
| W | $\frac{300}{4,875}$ | 6 | No |
| X | $\frac{700}{4,875}$ | 14 | Yes |
| Y | $\frac{1,100}{4,875}$ | 23 | Yes |
| Z | $\frac{375}{4,875}$ | 8 | No |

### Exercise 14-3

Revenue Test
Industry segments A and B are reportable segments under this test because their total revenue is 10% or more of combined total revenue of $366,000. The other segments do not meet this test.

Operating Profit Test
Industry segments A and B are reportable segments under this test because the absolute amounts of their operating profit or loss are each at least 10% of the greater of (1) the combined profit of all operating segments that did not incur a loss ($12,000 + $1,500 = $13,500), or (2) the combined loss of all operating segments that incurred a loss ($17,400 + $600 = $18,000). Segments A and B both have operating profit or loss of more than $1,800 (10% × $18,000). The other segments are not reportable segments under this test.

Identifiable Assets Test
Operating segments A and B are reportable segments because their identifiable assets are at least 10% of the combined assets of all segments. The other segments are not reportable segments under this test.

## Exercise 14-3 (continued)

Final Test

$$\frac{\text{Combined sales to nonaffiliated customers by segments A and B}}{\text{Combined sales to nonaffiliated customers by all segments}} = \frac{\$100{,}000}{\$136{,}200} = 73\%$$

Because the 75% test is not met, one of the segments that did not qualify as a reportable segment under the previous tests must be included as a reportable segment.

## Exercise 14-4

Ratio of each segment's payroll dollars to total payroll dollars of all segments:

Segment A: $\frac{34{,}800}{53{,}000} = 0.66$ Segment B: $\frac{18{,}200}{53{,}000} = 0.34$

Ratio of each segment's operating revenue to the total operating revenue of all segments

Segment A: $\frac{60{,}000}{159{,}000} = 0.38$ Segment B: $\frac{99{,}000}{159{,}000} = 0.62$

Ratio of each segment's assets to the total assets of all segments:

Segment A: $\frac{70{,}000}{124{,}500} = 0.56$ Segment B: $\frac{54{,}500}{124{,}500} = 0.44$

Formula Allocation of Joint Expenses

The arithmetic average of the three percentages above for each segment times the joint expenses:

Segment A: $\frac{0.66 + 0.38 + 0.56}{3} = 0.533$ ; $0.533 \times \$15{,}000 = \$7{,}995$

Segment B: $\frac{0.34 + 0.62 + 0.44}{3} = 0.467$ ; $0.533 \times \$15{,}000 = \$7{,}005$

Operating Profit (Loss) of each Segment

Segment A: $60,000 - $27,200 - $12,600 - $7,995 = $12,205

Segment B: $99,000 - $35,600 - $10,800 - $7,005 = $45,595

## Exercise 14-5

| | |
|---|---|
| Estimated income tax for the first three quarters: 0.38 × ($70,000 + $50,000 + $40,600) | $ 61,028 |
| Actual tax provision for the first two quarters: 0.32 × ($70,000 + $50,000) | (38,400) |
| Estimated provision for the first third quarter: | $ 22,628 |

## Exercise 14-6

| | March 31 | June 30 | Sept. 30 | Dec. 31 |
|---|---|---|---|---|
| A. Property taxes | $ 15,000 | $ 15,000 | $ 15,000 | $ 15,000 |
| B. Major repairs | 0 | 22,000 | 22,000 | 22,000 |
| C. Inventory loss | 0 | 0 | 150,000 | 0 |
| D. Gain on sale of equipment | 0 | 0 | 10,500 | 0 |

## Exercise 14-7

### Case A

|  |  |  | Cost of Goods Sold |  |
|---|---|---|---|---|
|  | Computation |  | Quarter | Cumulative |
| 1 | Sold 100,000 units @ $30 |  | $3,000,000 | $3,000,000 |
| 2 | Sold 30,000 units @ $30 | $900,000 |  |  |
|  | Write down of ending inventory of 124,000 to market |  |  |  |
|  | (124,000 × ($30 - $22) | 992,000 | 1,892,000 | 4,892,000 |
| 3 | Sold 42,500 units @ $22 | 935,000 |  |  |
|  | Write down of ending inventory of 81,500 to market |  |  |  |
|  | (81,500 × ($22 - $18)) | 326,000 | 1,261,000 | 6,153,000 |
| 4 | Sold 30,500 units @ $18 | 549,000 |  |  |
|  | Less write down recovery on ending inventory of 51,000 |  |  |  |
|  | (51,000 × ($22 - $18)) | 204,000 | 345,000 | 6,498,000 |

**Verification**

| Units Sold During Year |  | FIFO Cost per Unit | Amount |
|---|---|---|---|
| 203,000 | × | $30 | $6,090,000 |
| Add: Write down of ending inventory to the lower of cost or market (51,000 × ($30 - $22)) |  |  | 408,000 |
| Total cost of goods sold for the year |  |  | $6,498,000 |

### Case B

|  |  |  | Cost of Goods Sold |  |
|---|---|---|---|---|
|  | Computation |  | Quarter | Cumulative |
| 1 | Sold 100,000 units @ $30 | $3,000,000 |  |  |
|  | Write down of ending inventory of 154,000 to market |  |  |  |
|  | (154,000 × ($30 - $25)) | 770,000 | $3,770,000 | $3,770,000 |
| 2 | Sold 30,000 units @ $25 | 750,000 |  |  |
|  | Less write down recovery on ending inventory of 124,000 |  |  |  |
|  | (124,000 × ($27 - $25)) | 248,000 | 502,000 | 4,272,000 |
| 3 | Sold 42,500 units @ $27 | 1,147,500 |  |  |
|  | Write down of ending inventory of 81,500 units to market |  |  |  |
|  | (81,500 × ($27 - $19)) | 652,000 | 1,799,500 | 6,071,500 |
| 4 | Sold 30,500 units @ $19 | 579,500 |  |  |
|  | Less write down recovery on ending inventory of 51,000 |  |  |  |
|  | (51,000 × ($27 - $19)) | 408,000 | 171,500 | 6,243,000 |

**Verification**

| Units Sold During Year | | FIFO Cost per Unit | Amount |
|---|---|---|---|
| 203,000 | × | $30 | $6,090,000 |
| Add: Write down of ending inventory to the lower of cost or market (51,000 × ($30 - $27)) | | | 153,000 |
| Total cost of goods sold for the year | | | $6,243,000 |

## Exercise 14-8

First Quarter

| | | |
|---|---|---|
| Estimated Annual Earnings | | $1,350,000 |
| Add: Environmental Violation Penalties | 25,000 | |
| | | 1,375,000 |
| Deduct: Dividend Income Exclusion | 180,000 | |
| Estimated Taxable Income | | $1,195,000 |

| | | |
|---|---|---|
| Estimated Annual Income Tax Payable ($1,195,000 × 0.42) | | 501,900 |
| Estimated Effective Combined Annual Tax Rate ($\frac{\$501{,}900}{\$1{,}350{,}000}$) | 37.2% | |

| | | |
|---|---|---|
| Income Tax Expense | 148,800 | |
| Income Tax Payable (0.372 × $400,000) | | 148,800 |

Second Quarter

| | | |
|---|---|---|
| Estimated Annual Earnings | | $1,420,000 |
| Less: Net Permanent Differences ($180,000 - $25,000) | 155,000 | |
| Estimated Taxable Income | | $1,265,000 |

| | | |
|---|---|---|
| Estimated Annual Income Tax Payable (1,265,000 × 0.42) | | 531,300 |
| Estimated Effective Combined Annual Tax Rate ($\frac{\$531{,}300}{\$1{,}420{,}000}$) | 37.4% | |
| Cumulative Income to Date ($400,000 + $510,000) | | $910,000 |
| Estimated Income Tax Rate: | 0.374 | |
| Cumulative Tax Provision Needed | | 340,340 |
| Tax Provision in 1st Quarter | | 148,800 |
| Tax Provision in 2nd Quarter | | $191,540 |

| | | |
|---|---|---|
| Income Tax Expense | 191,540 | |
| Income Tax Payable | | 191,540 |

## Exercise 14-9

1. a
2. b
3. c
4. d
5. c
6. a
7. c

8. a

## ANSWERS TO PROBLEMS

### Problem 14-1

Revenue Test

| Operating Segment | Revenue | % of Total Revenue | Reportable Segment |
|---|---|---|---|
| 1 | $ 4,200 | 2.1% | No |
| 2 | 6,000 | 3.0% | No |
| 3 | 51,000 | 25.7% | Yes |
| 4 | 48,000 | 24.2% | Yes |
| 5 | 13,000 | 6.5% | No |
| 6 | 64,500 | 32.5% | Yes |
| 7 | 12,000 | 6.0% | No |
| | $198,700 | 100.0% | |

Operating Profit (Loss) Test

| Operating Segment | Operating Profit | Operating Loss | % of Largest of Op. Profit or Op. Loss | Reportable Segment |
|---|---|---|---|---|
| 1 | | $(600) | 3.0% | No |
| 2 | $2,000 | | 9.9% | No |
| 3 | 2,100 | | 10.4% | Yes |
| 4 | 8,800 | | 43.8% | Yes |
| 5 | 3,200 | | 15.9% | Yes |
| 6 | 4,000 | | 19.9% | Yes |
| 7 | | (3,000) | 14.9% | Yes |
| | $20,100 | $(3,600) | | |

Identifiable Assets

| Operating Segment | Identifiable Assets | % of Total | Reportable Segment |
|---|---|---|---|
| 1 | $ 7,000 | 4.1% | No |
| 2 | 8,800 | 5.1% | No |
| 3 | 35,400 | 20.7% | Yes |
| 4 | 37,600 | 22.0% | Yes |
| 5 | 14,000 | 8.2% | No |
| 6 | 52,000 | 30.4% | Yes |
| 7 | 16,400 | 9.6% | No |
| | $171,200 | | |

Thus, operating segments 3, 4, 5, 6, and 7 are reportable segments because they each meet one or more of the above tests.

**Problem 14-2**

The joint expense allocation is determined as follows:

| Profit Center | | | Adjusted Operating Profit (Loss) |
|---|---|---|---|
| A | $\frac{2,700}{12,000} \times \$2,400,000 =$ | \$540,000 | \$300,000 |
| B | $\frac{5,700}{12,000} \times \$2,400,000 =$ | \$1,140,000 | \$360,000 |
| C | $\frac{1,500}{12,000} \times \$2,400,000 =$ | \$300,000 | \$(60,000) |
| D | $\frac{2,100}{12,000} \times \$2,400,000 =$ | \$420,000 | \$(480,000) |

Part A The results of the tests for each combination are summarized below. Note that, although intersegment sales are included for purpose of segment reporting, intrasegment sales should be eliminated.

| Combination | Industry Segment | Revenue Test | Operating Profit Test | Identifiable Assets Test | Reportable Segment |
|---|---|---|---|---|---|
| 1 | AB | 70%* | 100% | 84% | Yes |
| | CD | 30% | 82% | 16% | Yes |
| 2 | AB | 70% | 100% | 84% | Yes |
| | C | 9% | 9% | 8% | No |
| | D | 21% | 73% | 8% | Yes |
| 3 | A | 23% | 56% | 24% | Yes |
| | B | 50% | 67% | 60% | Yes |
| | CD | 27% | 100% | 16% | Yes |
| 4 | A | 23% | 45% | 24% | Yes |
| | B | 50% | 55% | 60% | Yes |
| | C | 8% | 9% | 8% | No |
| | D | 19% | 73% | 8% | Yes |
| 5 | A | 25% | 100% | 24% | Yes |
| | BD | 66% | 40% | 68% | Yes |
| | C | 9% | 20% | 8% | Yes |

*The percentages for combination one are determined as follows:

| | | |
|---|---|---|
| AB segment: \$3,600 + \$8,700 + (\$1,500 – \$1,200) + (\$2,400 - \$1,200) = | \$13,800 | 70% |
| CD segment: \$1,500 + \$1,200 + (\$300 – 0) + (\$3,000 – \$150) = | 5,850 | 30% |
| | \$19,650 | 100% |

Part B For combinations 1, 3, and 5, 100 percent for sales to unaffilated customers is explained by the reportable segments. For combinations 2 and 4, the figure is 90 percent (\$13,500/\$15,000). Thus, in each situation, the segments deemed reportable by applying the three tests are sufficient for purposes of satisfying the requirements of SFAS No.14.

## Problem 14-3

**Part A** An operating segment that meets any one or more of the ten percent revenue, operating profit (or loss), or identifiable assets tests must be reported separately. Additionally, the combined revenue from sales to unaffiliated customers of all separately reported segments must constitute at least seventy-five percent of the combined revenue from sales to unaffiliated customers of all operating segments. These restrictions represent minimum levels that must be attained. Beyond these levels, management may report additional segments if it so desires.

**Part B** The fact that the FASB allows management considerable flexibility as to the method of presenting segment information can help to alleviate management's fears. The implication underlying management's concern is that too much information is being supplied in the statements. Too much information can result in an added burden to the statement users who may have to sift through excessively detailed information, some of which may not be relevant to their needs. Although this argument may or may not be valid, disclosure of segment information could be creatively presented. For instance, a separate section of the report could contain this information.

**Part C** A primary objective of financial reporting is to provide information that is useful for making economic decisions. Investors, for example, need information to aid them in evaluating the risk and return of a prospective investment. Such an evaluation is not as easily made where consolidated financial statements reflect diversified operations, each of which experience different rates of profitability, growth, and risk. Thus, segment reporting represents an attempt to disaggregate the consolidated statements information so that each unique operation can be evaluated separately. Presumably, this approach will result in better economic decisions by users of financial statements.

**Part D** The effect of intersegment transactions is included as a part of required segment information. This approach will enhance segment comparability with other unaffiliated entities or their segments. Comparability has been described as a qualitative characteristic which makes financial information useful. The required elimination of, say, a substantial portion of a segment's sales would seriously restrict the comparability between two otherwise similar entities. This is the major reason why the effect of such transfers is not eliminated. Arguments have been advanced, however, that favor the exclusion of intersegment sales when determining segment revenue. These arguments include:

(1) The absence of a bargained market transaction normally precludes the recognition of revenue.
(2) The transfer price is not objectively verifiable.
(3) The level of intersegment transfers will often be affected by the internal production decisions of other segments.

## Problem 14-4

**Part A**

| Revenue Test | A | B | C | D | E | Combined |
|---|---|---|---|---|---|---|
| Sales to Nonaffiliates | $57,000 | $120,000 | $760,000 | $50,000 | $43,000 | $1,030,000 |
| Intersegment Sales | 0 | 0 | 120,000 | 0 | 40,000 | 160,000 |
| Total Revenue | $57,000 | $120,000 | $880,000 | $50,000 | $83,000 | $1,190,000 |

Industries B and C have total revenue of 10% or more of combined total revenue.

| Operating Profit Test | | | | | | |
|---|---|---|---|---|---|---|
| Operating Profit (Loss) | $12,000 | $(25,000) | $156,000 | $16,000 | $6,000 | $165,000 |

Industries B and C are reportable segments because the absolute amounts of the operating profit or loss are at least 10% of the greater of (1) the combined profit of all operating segments that did not incur a loss ($190,000), or (2) the combined loss of all operating segments that incurred a loss ($25,000).

| Identifiable Assets Test | | | | | | |
|---|---|---|---|---|---|---|
| Identifiable Assets | $50,000 | $95,000 | $600,000 | $98,000 | $240,000 | $1,083,000 |

Industries C and E are reportable segments because their identifiable assets are at least 10% of combined identifiable assets

Overall 75% Test

$$\frac{\text{Sales to Nonaffiliates by Reportable Segments}}{\text{Total Sales to Nonaffiliates}} \qquad \frac{\$923,000}{\$1,030,000} = 90\%$$

Segments B, C, and E are reportable segments.

**Part B**

| | B | C | E | Other | Eliminations | Consolidated |
|---|---|---|---|---|---|---|
| Sales to Nonaffiliates | $120,000 | $760,000 | $43,000 | $107,000 | | $1,030,000 |
| Intersegment Sales | | 120,000 | 40,000 | | $(160,000) | |
| Total Revenue | $120,000 | $880,000 | $83,000 | $107,000 | $(160,000) | $1,030,000 |
| Operating Profit (loss) | $(25,000) | $156,000 | $6,000 | $28,000 | $0 | $165,000 |
| General Corporate Expenses | | | | | | 76,000 |
| Income from Operations | | | | | | $89,000 |
| Identifiable Assets | $95,000 | $600,000 | $240,000 | $148,000 | $0 | $1,083,000 |
| Corporate Assets | | | | | | 95,000 |
| Total Assets | | | | | | $1,178,000 |
| Depreciation & Amortization | $10,700 | $76,000 | $26,400 | $18,600 | | |
| Capital Expenditures | $8,000 | $39,000 | $25,000 | $25,600 | | |

## Problem 14-4 (continued)

### Enterprisewide Disclosures

| Revenue | |
|---|---|
| United States | $ 937,000 |
| Canada | 93,000 |
| Total Consolidated Revenues | $1,030,000 |

| Long-Lived Assets | |
|---|---|
| United States* | $ 840,000 |
| Canada | 338,000 |
| Total Consolidated Assets | $1,178,000 |

* We have assumed that all corporate assets are located in the United States.

Major Customers:
We do not provide information on major customers because no single external customer represented 10% or more of total revenues.

## Problem 14-5

**Part A** Revenue Test

| | L | M | N | O | P | Combined |
|---|---|---|---|---|---|---|
| Total Revenue | $40,000 | $85,000 | $600,000 | $50,000 | $48,000 | $823,000 |

Industries M and N are the only ones whose total revenue is 10% or more of combined total revenue.

Operating Profit Test

| | L | M | N | O | P | Combined |
|---|---|---|---|---|---|---|
| Operating Profit (Loss) | 8,000 | (11,000) | 81,000 | 9,000 | 3,000 | 90,000 |

Industries M and N are reportable segments because the absolute amounts of the operating profit or loss are at least 10% of the greater of (1) the combined profit of all operating segments that did not incur a loss ($101,000), or (2) the combined loss of all operating segments that incurred a loss ($11,000).

Identifiable Assets Test

| | L | M | N | O | P | Combined |
|---|---|---|---|---|---|---|
| Identifiable Assets | 30,000 | 48,000 | 320,000 | 45,000 | 95,000 | 538,000 |

Industries N and P are reportable segments because their identifiable assets are at least 10% of combined identifiable assets.

Overall 75% Test

$$\frac{\text{Sales to Nonaffiliates by Reportable segments}}{\text{Total Sales to Nonaffiliates}} \quad \frac{\$733{,}000}{\$823{,}000} = 89\%$$

Segments M, N, and P are reportable segments.

**Problem 14-5 (continued)**

**Part B** – Reconciliation

**Revenue**

| | |
|---|---|
| Total revenue for reportable segments | $ 733,000 |
| Revenue for other segments aggregated | 90,000 |
| Elimination of intersegment revenue | (15,000) |
| Total Consolidated Revenue | $ 808,000 |

**Profit and Loss**

| | |
|---|---|
| Total profit and loss for reportable segments | $ 73,000 |
| Other profit and loss | 17,000 |
| Elimination of intersegment profits | 0 |
| Unallocated amounts relating to corporate headquarters: | 90,000 |
| Interest expense | 1,000 |
| Depreciation expense | 2,000 |
| Income before taxes | $ 87,000 |

**Assets**

| | |
|---|---|
| Total assets for reportable segments | $ 463,000 |
| Other assets | 75,000 |
| General corporate assets | 90,000 |
| Total Consolidated Assets | $ 628,000 |

The following amounts would also be disclosed if known.

**Other Significant Items**
Segment depreciation
Other depreciation
Adjustment for depreciation on corporate assets
Consolidated Totals

Segment interest expense
Other interest expense
Adjustment for interest on corporate assets
Consolidated Totals

Segment capital expenditures
Other capital expenditures
Adjustment for acquisition on corporate assets
Consolidated Totals

**Problem 14-6**

First Quarter

| | | |
|---|---|---|
| Estimated Annual Earnings | | $400,000 |
| Less: Net Permanent Differences | | 26,000 |
| Estimated Taxable Income | | $374,000 |
| Estimated Annual Income Tax Payable $374,000 × 30% | | $112,200 |

Estimated Effective Tax Rate $\frac{\$112,200}{\$400,000} = 28.05\%$

Entry

| | | |
|---|---|---|
| Income Tax Expense | 26,648 | |
| Income Tax Payable 0.2805 × $95,000 | | 26,648 |

Second Quarter

| | | |
|---|---|---|
| Estimated Annual Earnings | | $370,000 |
| Less: Net Permanent Differences | | 26,000 |
| Estimated Taxable Income | | $344,000 |
| Estimated Annual Income Tax Payable $344,000 × 30% | | $103,200 |

Estimated Effective Tax Rate $\frac{\$103,200}{\$370,000} = 27.9\%$

| | | |
|---|---|---|
| Cumulative Income to Date ($95,000 + $85,000) | | $180,000 |
| Estimated Income Tax Rate | | 0.279 |
| Cumulative Tax Provision Needed | | 50,220 |
| Tax Provision in First Quarter | | 26,695 |
| Tax Provision in Second Quarter | | $23,525 |

Entry

| | | |
|---|---|---|
| Income Tax Expense | 23,525 | |
| Income Tax Payable | | 23,525 |

Third Quarter

| | | |
|---|---|---|
| Estimated Annual Earnings | | $370,000 |
| Less: Net Permanent differences | | 36,000 |
| Estimated Taxable Income | | $334,000 |
| Estimated Annual Income Tax Payable $334,000 × 30% | | $100,200 |

Estimated Effective Tax Rate $\frac{\$100,200}{\$370,000} = 27.1\%$

| | | |
|---|---|---|
| Cumulative Income to Date ($95,000 + $85,000 + $92,000) | | $272,000 |
| Estimated Income Tax Rate | | 0.271 |
| Cumulative Tax Provision Needed | | 73,712 |
| Tax Provided in First Two Quarters | | 50,220 |
| Tax Provision for Third Quarter | | $23,492 |

Entry

| | | |
|---|---|---|
| Income Tax Expense | 23,492 | |
| Income Tax Payable | | 23,492 |

## Problem 14-6 (continued)

Fourth Quarter

| | |
|---|---|
| Actual Earnings For the Year | $368,000 |
| Less: Net Permanent Differences | 41,000 |
| Actual Taxable Income | 327,000 |
| Income Tax Rate (Actual) | 0.30 |
| Actual Income Tax Payable | 98,100 |
| Tax Provided in First Three Quarters | 73,712 |
| Tax Provide for Fourth Quarter | $24,388 |

Entry

| | | |
|---|---|---|
| Income Tax Expense | 24,388 | |
| Income Tax Payable | | 24,388 |

## Problem 14-7

A. This is acceptable. A loss in inventory value should be reported in the period in which it occurs. Recoveries of losses on the same inventory in later periods should be recognized as gains in the later interim periods of the same fiscal year. These gains, however, should not exceed previously recognized losses.

B. This is not acceptable. Gains on the sale of investments are not deferred if they occur at year end. Thus, these gains should not be deferred on interim statements, but should be reported in the interim period in which they are realized.

C. This is acceptable. Annual audit fees are expenses that benefit the entire year. Companies should make quarterly estimates of these type expenses that generally result in year-end adjustments. Consequently, this expense should be prorated over the four quarters.

D. This is not acceptable. Sales revenues should be recognized as earned during the interim period on the same basis as followed for the full year. Since Fur Company normally recognizes revenue when shipment occurs, they should recognize this revenue in the second quarter when the shipments were made.

E. This is acceptable. Estimated gross profit rates should be used for interim reporting purposes as long as the method and rates used are reasonable. The company should disclose the method used and any significant adjustments that result from reconciliations with annual physical inventory.

F. This is acceptable. Pension costs generally are identified with a time period rather than with the sale of a specific product or service. Companies should make quarterly estimates of these type items that generally result in year-end adjustments. Thus, these costs should be allocated to each of the four interim periods.

# CHAPTER 15

## ANSWERS TO QUESTIONS

1. A partnership is not subject to an income tax, but the individual partners report their share of partnership income, whether distributed or not, on their respective individual tax returns.

2. A partner's capital balance represents his or her interest in the net assets of the partnership, whereas a partner's interest in income and loss represents how his or her interest in capital will be affected by the subsequent operations of the partnership. Generally, a partner's capital account is used to recognize asset investments and withdrawals which are not considered temporary. The partner's drawing account is generally used to record withdrawals of assets in anticipation of profitable operations of the partnership or any payments of a partner's personal expenses from partnership assets.

3. A partnership is viewed as a "separate economic entity" in accounting because it has a "separable and definable existence". The assets, liabilities, and residual capital interest, as well as the economic events which affect the various partnership accounts, require a "separable accounting" to provide necessary information to the partners and to others interested in the partnership's performance.

4. Some common methods used in allocating income and loss to partners are: fixed ratio, a ratio based on capital balances, interest on capital, and payment for time devoted to partnership operations, salary and/or bonus.

5. A withdrawal is a reduction in assets, not a distribution of income. A salary is a determinate in the allocation of income and is a reward to the partner for the amount of time devoted to the partnership's operations.

6. A bonus may be calculated in several ways. Some of these are: (1) net income before any income allocations are made; (2) net income after income allocations are made, but before subtracting the bonus; (3) net income after subtracting the bonus, but before any other income allocations are made; and (4) net income after all income allocations are made, including the bonus.

7. The UPA defines "dissolution" as a "change in the relation of the partners caused by any partner ceasing to be associated in the carrying on as distinguished from the winding up of the business."

8. The two methods used to record changes in partnership membership are (1) the bonus method and (2) the goodwill method. Under the bonus method, assets of the partnership are increased by the amount of the assets invested by the new partner or decreased by the amount of the assets paid to a withdrawing partner. The new (withdrawing) partner's capital account is debited (credited) for the capital interest acquired (the balance in the capital account). Any balancing amount is adjusted to the other partners' capital accounts. Under the goodwill method, an intangible asset is recorded based on the difference between the value implied by the amount of consideration exchanged in the admission or withdrawal of a partner and the capital interest of the new or withdrawing partner.

9. An interest in a partnership can be acquired either (1) by purchasing all or part of an interest directly from one or more partners (outside the partnership), called an assignment of partnership interest, or (2) by investing assets in the firm to acquire an interest in the partnership.

10. The bonus and goodwill methods will yield the same result when two conditions relating to the new profit and loss agreement are met. These are: (1) the new partner's profit sharing interest equals his or her initial interest in capital; and (2) the old partners' profit sharing ratio is in the same relative ratio as in the old partnership.

11. Neither the goodwill method nor the bonus method should be used to record the admission of a new partner when (1) the book value of the interest acquired is equal to the value of assets invested, or (2) the net assets of the firm are overvalued.

12. A partner withdrawing in violation of the partnership agreement and without the other partners' approval is entitled only to his or her interest in the firm, without consideration made for any goodwill. The withdrawing partner is also liable to the remaining partners for any damages created by his breach of the partnership agreement. A partner forced to withdraw, however, is entitled to his full interest in the partnership, including any goodwill.

## BUSINESS ETHICS SOLUTIONS

Business ethics solutions are merely suggestions of points to address. The objective is to raise the students' awareness of the topics, and to invite discussion. In most cases, there is clear room for disagreement or conflicting viewpoints.

1. The defined benefit plan creates a challenge for a firm in a fluctuating market. If the firm is simultaneously struggling with other financial issues, its manager may indeed consider reducing or eliminating the plan. However, such a decision should not be taken lightly, as it would remove an important and valuable benefit to its employees. Certainly, there would be no reason, particularly when the plan is fully funded as it is here, to eliminate any of the previously accrued benefits. However, the firm may wish to revisit the types of benefits offered in the future. One alternative is to switch to a defined contribution plan. This plan is somewhat less appealing to the employee, but it is certainly more desirable than no pension plan and it greatly reduces the volatility and risk to the employer.

It is crucial that the employer take into account the manner in which a change in its pension plan will affect its ability to attract and keep top quality employees over the long run, as this is essential to the long-term viability of the company. Changing market dynamics have made firms realize that in order to maximize long-term profits, they have to be socially responsible. Firms, therefore, engage in social responsibility by responding to market demands, legal regulation, including consumer, employment and environmental laws, and by going beyond the letter of the law. Laws combined with markets are often adequate to make profit-maximizing and socially responsible behavior converge.

The following points are among those to be considered in reconciling the tradeoffs between financial performance and responsibility to a firm’s employees:

- Employees can insist on socially responsible behavior, both by contract and by deciding where to work. Employees can contract not only about wages and working conditions, but also concerning social responsibility of firms. A corporation’s reputation for social responsibility can attract and retain employees.

- Employees derive satisfaction from being associated with, and expect better treatment from, responsible firms.

- The more difficult the skill set and knowledge requirements for the employees' position are to fill, the more likely that employee is to be influenced by such benefits as pension plans and such considerations as social responsibility of the firm.

- Workers are also investors and, more importantly, consumers. The firms must not only hire and contract with its employees, but also motivate them to perform at their maximum level of effort. Disgruntled workers can erode a firm's goodwill. As discussed above, unions and other groups prefer to deal with worker-friendly firms.

For additional information, see the following link:
http://home.law.uiuc.edu/~ribstein/ribsteinpartnershipsocialresponsibility1229.pdf

## ANSWERS TO EXERCISES

### Exercise 15-1

| Agreed Fair Values | Invested by John | Invested by Jeff | Invested by Jane |
|---|---|---|---|
| Cash | $100,000 | - - - | - - - |
| Equipment | | 110,000 | - - - |
| Total assets | 100,000 | 110,000 | 0 |
| Note payable assumed by partnership | - - - | 30,000 | - - - |
| Net assets invested | $100,000 | $80,000 | $0 |

**Part A** Bonus Method

| | | |
|---|---|---|
| Cash | 100,000 | |
| Equipment | 110,000 | |
| Note Payable | | 30,000 |
| John, Capital | | 60,000 |
| Jeff, Capital | | 60,000 |
| Jane, Capital | | 60,000 |

**Part B** Goodwill Method

| | | |
|---|---|---|
| Cash | 100,000 | |
| Equipment | 110,000 | |
| Goodwill | 90,000 | |
| Note Payable | | 30,000 |
| John, Capital | | 90,000 |
| Jeff, Capital | | 90,000 |
| Jane, Capital | | 90,000 |

**Part C** The bonus method is used when John and Jeff recognize that Jane is bringing something of value to the firm other than a tangible asset, but they do not want to recognize an intangible asset. To equalize the capital accounts, $40,000 is transferred from John's capital account and $20,000 is transferred from Jeff's capital account.

The goodwill method is used when the partners recognize the intangible nature of the skills Jane is bringing to the partnership. However, the capital accounts are equalized by recognizing an intangible asset and a corresponding increase in the capital accounts of the partners. Unless the intangible asset can be specifically identified, such as a patent being invested, it should not be recognized, because of a lack of justification for goodwill in a new business.

## Exercise 15-2

| | | | | |
|---|---|---|---|---|
| **Part A** | (1) | Cash | 13,000 | |
| | | Accounts Receivable | 8,000 | |
| | | Office Supplies | 2,000 | |
| | | Office Equipment | 30,000 | |
| | | Accounts Payable | | 2,000 |
| | | Tom, Capital | | 51,000 |
| | | | | |
| | | Cash | 12,000 | |
| | | Accounts Receivable | 6,000 | |
| | | Office Supplies | 800 | |
| | | Land | 30,000 | |
| | | Accounts Payable | | 5,000 |
| | | Mortgage Payable | | 18,800 |
| | | Julie, Capital | | 25,000 |
| | | | | |
| | (2) | Tom, Drawing | 15,000 | |
| | | Cash | | 15,000 |
| | | | | |
| | | Julie, Drawing | 12,000 | |
| | | Cash | | 12,000 |
| | | | | |
| | (3) | Income Summary | 50,000 | |
| | | Tom, Capital $50,000 × ($51,000/$76,000) | | 33,553 |
| | | Julie, Capital $50,000 × ($25,000/$76,000) | | 16,447 |
| | | | | |
| | | Tom, Capital | 15,000 | |
| | | Julie, Capital | 12,000 | |
| | | Tom, Drawing | | 15,000 |
| | | Julie, Drawing | | 12,000 |

**Part B**

TOM AND JULIE PARTNERSHIP
Statement of Changes in Partners' Capital
For the Year Ended December 31, 2004

| | Tom | Julie | Total |
|---|---|---|---|
| Capital balances, Jan. 1 | $ 0 | $ 0 | $ 0 |
| Add: Additional investments | 51,000 | 25,000 | 76,000 |
| Net income allocation | 33,553 | 16,447 | 50,000 |
| Totals | 84,553 | 41,447 | 126,000 |
| Less: Withdrawals | 15,000 | 12,000 | 27,000 |
| Capital balances, Dec. 31 | $69,553 | $29,447 | $99,000 |

**Exercise 15-3**

| | | Jones | Silva | Thompson | Total |
|---|---|---|---|---|---|
| 1 | Interest on capital | $4,000 | $2,500 | $3,000 | $9,500 |
| | Salary (12 months) | 24,000 | 0 | 18,000 | 42,000 |
| | Total | 28,000 | 2,500 | 21,000 | 51,500 |
| | Remainder divided equally | 16,000 | 16,000 | 16,000 | 48,000 |
| | Income allocation | $44,000 | $18,500 | $37,000 | $99,500 |
| | | | | | |
| 2 | Interest on capital and salary | $28,000 | $2,500 | $21,000 | $51,500 |
| | Excess allocation ($38,300 - $51,500) | (4,400) | (4,400) | (4,400) | (13,200) |
| | Income allocation | $23,600 | $(1,900) | $16,600 | $38,300 |
| | | | | | |
| 3 | Interest on capital and salary | $28,000 | $2,500 | $21,000 | $51,500 |
| | Excess allocation (-$15,100 -$51,500) | (22,200) | (22,200) | (22,200) | (66,600) |
| | Net loss allocation | $5,800 | $(19,700) | $(1,200) | $(15,100) |

**Exercise 15-4**

| | Mary | Nancy | Total |
|---|---|---|---|
| Salary | $20,000 | $25,000 | $45,000 |
| Interest | 8,000 | 8,000 | 16,000 |
| Total | 28,000 | 33,000 | 61,000 |
| Excess allocation (-$20,000 - $61,000) | (40,500) | (40,500) | (81,000) |
| Net loss allocation | $(12,500) | $(7,500) | $(20,000) |

| | | |
|---|---|---|
| Mary, Capital | 12,500 | |
| Nancy, Capital | 7,500 | |
| Income Summary | | 20,000 |

**Exercise 15-5**

| | | Tony | | Jon | Total |
|---|---|---|---|---|---|
| Salary | | $42,000 | | $66,000 | $108,000 |
| Bonus (schedule 1) | | 0 | | 7,273 | 7,273 |
| Interest on capital | | 38,400 | | 27,200 | 65,600 |
| Total | | 80,400 | | 100,473 | 180,873 |
| Remainder | (40%) | 2,851 | (60%) | 4,276 | 7,127 |
| Income allocation | | $83,251 | | $104,749 | $188,000 |

## Exercise 15-5 (continued)

Schedule 1 - Bonus Calculation

B = .10 × (income after salaries - B)
B = .10 × [($188,000 - $108,000) - B]
B = .10 × ($80,000 - B)
B = $8,000 - .10 × B
1.10 × B = $8,000
B = $7,273

| Proof: | |
|---|---|
| Net Income | $188,000 |
| Salaries | (108,000) |
| Bonus | (7,273) |
| Net income subject to bonus | $72,727 |

B = .10 × $72,727
B = $7,273

## Exercise 15-6

| | Hill | | Jones | | Vose | Total |
|---|---|---|---|---|---|---|
| Balances before income allocation and cash distribution | $70,000 | | $21,800 | | $(11,700) | $80,100 |
| Income allocated (Schedule 1) | 59,263 | | 18,030 | | | 108,000 |
| | | | | | 30,707 | |
| | 129,263 | | 39,830 | | 19,007 | 188,100 |
| Cash distributed (note 1) | 91,249 | (1) | 33,494 | (2) | | 124,743 |
| Ending balances - 12/31 | $38,014 | | $6,336 | | | $63,357 |
| | | | | | $19,007 | |
| | 0.60 | | 0.10 | | 0.30 | |

Schedule 1 - Income Allocation

| | | Hill | | Jones | | Vose | Total |
|---|---|---|---|---|---|---|---|
| Salary | | $12,000 | | $9,600 | | $8,800 | $30,400 |
| Interest on capital (5%) | | 4,875 | | 1,365 | | 713 | 6,953 |
| | | 16,875 | | 10,965 | | 9,513 | 37,353 |
| Remainder | (60%) | 42,388 | (10%) | 7,065 | (30%) | 21,194 | 70,647 |
| | | $59,263 | | $18,030 | | $30,707 | $108,000 |

Note 1: Hill $129,263/0.60 = $215,438 (1) $129,263 – ($63,357 ×.60)
Jones $39,830/0.10 = $398,300 (2) $39,830 – ($63,357 ×.10)

Vose $19,007/0.30 = $63,357

Vose is the limiting factor. His balance must be 30% of total capital without investing cash. Therefore the equation $19,007/0.30 = $63,357 is used to figure the maximum capital without additional investments.

## Exercise 15-7

| | | | |
|---|---|---|---|
| 1. | Phoenix, Capital | 22,500 | |
| | Dallas, Capital | | 22,500 |
| | | | |
| 2. | Phoenix, Capital | 18,000 | |
| | Tucson, Capital | 10,000 | |
| | Dallas, Capital | | 28,000 |
| | | | |
| 3. | Cash | 60,000 | |
| | Phoenix, Capital ($60,000 - $40,000) × .50 | | 10,000 |
| | Tucson, Capital | | 10,000 |
| | Dallas, Capital | | 40,000 |

($90,000 + $50,000) + $60,000 = $200,000; Therefore, no goodwill is to be recognized.
Dallas, capital = $200,000 × 0.20 = $40,000

| | | | |
|---|---|---|---|
| 4. | Goodwill | 20,000 | |
| | Phoenix, Capital | | 10,000 |
| | Tucson, Capital | | 10,000 |

$40,000/0.20 = $200,000
Goodwill = $200,000 - ($90,000 + $50,000 + $40,000) = $20,000

| | | |
|---|---|---|
| Cash | 40,000 | |
| Dallas, Capital | | 40,000 |

## Exercise 15-8

| | | | |
|---|---|---|---|
| 1. | Bad Debt Expense | 180 | |
| | Allowance for Doubtful Accounts | | 180 |
| | | | |
| 2. | Unrealized Loss on Revaluation of Inventory | 2,000 | |
| | Merchandise Inventory | | 2,000 |
| | | | |
| 3. | Operating Expenses | 600 | |
| | Accrued Liabilities | | 600 |
| | | | |
| 4. | Insurance Expense | 200 | |
| | Prepaid Insurance | | 200 |
| | | | |
| 5. | Income Summary | 2,980 | |
| | Bad Debt Expense | | 180 |
| | Unrealized Loss on Revaluation of Inventory | | 2,000 |
| | Operating Expenses | | 600 |
| | Insurance Expense | | 200 |

## Exercise 15-8 (continued)

| | | |
|---|---|---|
| 6. Bill, Capital ($2,980 × .70) | 2,086 | |
| Jane, Capital | 894 | |
| Income Summary | | 2,980 |

| | |
|---|---|
| 7. Total capital implied in contract ($14,000/ (1/3)) | $42,000 |
| Minus capital balances + Mike's investment [($12,000 + $8,000 - $2,980) + $14,000] | 31,020 |
| Goodwill | $10,980 |

Entries to record Mike's admission:

| | | |
|---|---|---|
| Goodwill | 10,980 | |
| Bill, Capital | | 7,686 |
| Jane, Capital ($10,980 × .30) | | 3,294 |
| | | |
| Cash | 14,000 | |
| Mike, Capital | | 14,000 |

## Exercise 15-9

| | | |
|---|---|---|
| 1. Cash | 120,000 | |
| Mary, Capital | | 120,000 |

Calculation of investment:

$$\frac{\$600{,}000}{5/6} = \$720{,}000 \text{ - to compute total capital after investment}$$

$$\$720{,}000 \times (1/6) = \$120{,}000 \text{ - to compute Mary's investment}$$

2. Book value of interest acquired = ($600,000 + $160,000) $\times (1/5)$ = $152,000

Book value acquired ($152,000) is less than assets invested ($160,000) by $8,000

Bonus Method

| | | |
|---|---|---|
| Cash | 160,000 | |
| Beth, Capital (0.4 × $8,000) | | 3,200 |
| Steph, Capital (0.4 × $8,000) | | 3,200 |
| Linda, Capital (0.2 × $8,000) | | 1,600 |
| Mary, Capital | | 152,000 |

Goodwill Method

| | |
|---|---|
| Total capital implied by contract ($160,000/0.20) | $800,000 |
| Less: Current balances + Mary's investment * | (760,000) |
| Goodwill | $40,000 |

* ($600,000 + $160,000)

**Exercise 15-9 (continued)**

| | | |
|---|---|---|
| Goodwill | 40,000 | |
| Beth, Capital | | 16,000 |
| Steph, Capital | | 16,000 |
| Linda, Capital (0.2 × $40,000) | | 8,000 |

| | | |
|---|---|---|
| Cash | 160,000 | |
| Mary, Capital | | 160,000 |

3. Book value of interest acquired = ($600,000 + $160,000) × ¼ = $190,000
Book value of interest acquired ($190,000) is greater than assets invested ($160,000) by $30,000

Bonus Method

| | | |
|---|---|---|
| Cash | 160,000 | |
| Beth, Capital (0.4 × $30,000) | 12,000 | |
| Steph, Capital (0.4 × $30,000) | 12,000 | |
| Linda, Capital (0.2 × $30,000) | 6,000 | |
| Mary, Capital | | 190,000 |

Goodwill Method

| | |
|---|---|
| Goodwill implicit in agreement: | |
| Current partners' capital balance total | $600,000 |
| Percentage interest | 75% |
| Implied total capital | $800,000 |

| | |
|---|---|
| Implied total capital | $800,000 |
| Less: Current balances + Mary's investment | 760,000 |
| Goodwill | $40,000 |

| | | |
|---|---|---|
| Cash | 160,000 | |
| Goodwill | 40,000 | |
| Mary, Capital | | 200,000 |

4. Book value of interest acquired = ($600,000 + $160,000) × 0.40 = $304,000
Book value of interest acquired ($304,000) is greater than assets invested ($160,000) by $144,000

Bonus Method

| | | |
|---|---|---|
| Cash | 160,000 | |
| Beth, Capital (0.4 ×$144,000) | 57,600 | |
| Steph, Capital (0.4 × $144,000) | 57,600 | |
| Linda, Capital (0.2 × $144,000) | 28,800 | |
| Mary, Capital | | 304,000 |

## Exercise 15-9 (continued)

Goodwill Method

| | |
|---|---|
| Total capital implied by contract ($600,000/0.60) | $1,000,000 |
| Less: Current balances + Mary's investment | 760,000 |
| Goodwill | $240,000 |

| | | |
|---|---|---|
| Cash | 160,000 | |
| Goodwill | 240,000 | |
| Mary, Capital | | 400,000 |

## Exercise 15-10

1. d ($125,000 + $250,000 - $25,000) = $350,000

2. c $60,000 is the fair value of the land invested

3. c $10,000 interest + $14,175 bonus + $6,775 underallocation

4. c

| | |
|---|---|
| Tom | $80,000 - (0.6 × $10,000) |
| Jim | $50,000 - (0.4 × $10,000) |
| John | $60,000 |

5. c $39,000 + $8,000 (share of revalued assets) - $550 *(share of excess paid to Al)

* [$61,200 – ($9,000 + $42,000 + $8,000)] × 20/80

## Exercise 15-11

1. c
2. e
3. d
4. a
5. b
6. c

Supporting computations

| 3. | High | Low | Total |
|---|---|---|---|
| Salary | $45,000 | $ - 0 - | $45,000 |
| Bonus | 7,500 | | 7,500 |
| | 52,500 | | 52,500 |
| | (1,250) | (1,250) | (2,500) |
| | $51,250 | $(1,250) | $50,000 |

## Exercise 15-12

| | | Sue | Josh | Total |
|---|---|---|---|---|
| **Part A** | Interest on beginning capital | $ 6,000 | $ 8,000 | $14,000 |
| | Salary | 25,000 | 21,000 | 46,000 |
| | Bonus | | 9,000 | 9,000 |
| | | 31,000 | 38,000 | 69,000 |
| | Remainder divided equally | 10,500 | 10,500 | 21,000 |
| | Allocation Total | $41,500 | $48,500 | $90,000 |

Calculation of bonus: 0.10 × $90,000 = $9,000

| | | Sue | Josh | Total |
|---|---|---|---|---|
| **Part B** | Interest on capital | $6,000 | $8,000 | $14,000 |
| | Salary | 25,000 | 21,000 | 46,000 |
| | Bonus | | 8,182 | 8,182 |
| | | 31,000 | 37,182 | 68,182 |
| | Remainder divided equally | 10,909 | 10,909 | 21,818 |
| | Total Allocation | $41,909 | $48,091 | $90,000 |

Calculation of bonus:

$$\begin{aligned} B &= 0.10 \times (\$90{,}000 - B) \\ B &= \$9{,}000 - 0.1 \times B \\ 1.1 \times B &= \$9{,}000 \\ B &= \$8{,}182 \end{aligned}$$

| | | Sue | Josh | Total |
|---|---|---|---|---|
| **Part C** | Interest on capital | $6,000 | $8,000 | $14,000 |
| | Salary | 25,000 | 21,000 | 46,000 |
| | Bonus | | 2,727 | 2,727 |
| | | 31,000 | 31,727 | 62,727 |
| | Remainder divided equally* | 13,636 | 13,637 | 27,273 |
| | Total Allocation | $44,636 | $45,364 | $90,000 |

Bonus Calculation:

$$\begin{aligned} B &= 0.1 \times (NI - I - S - B) \\ B &= 0.1 \times (\$90{,}000 - \$14{,}000 - \$46{,}000 - B) \\ B &= 0.1 \times (\$30{,}000 - B) \\ B &= \$3{,}000 - 0.1 \times B \\ 1.1 \times B &= \$3{,}000 \\ B &= \$2{,}727 \end{aligned}$$

*Rounded: $\left(\frac{\$27{,}273}{2}\right) = \$13{,}636.50$

**Exercise 15-13**

| | | | |
|---|---|---|---|
| **Part A** | Inventory | 8,000 | |
| | Land | 19,000 | |
| | Kazma, Capital ($27,000 × 0.4) | | 10,800 |
| | Folkert, Capital ($27,000 × 0.4) | | 10,800 |
| | Tucker, Capital ($27,000 × 0.2) | | 5,400 |

**Part B** 1. Bonus

| | | |
|---|---|---|
| Tucker, Capital ($45,000 + $5,400) | 50,400 | |
| Kazma, Capital ($4,600 × 0.5) | 2,300 | |
| Folkert, Capital ($4,600 × 0.5) | 2,300 | |
| Cash | | 15,000 |
| Note Payable | | 40,000 |

2. Partial goodwill recorded

| | | |
|---|---|---|
| Goodwill ($15,000 + $40,000 – $50,400) | 4,600 | |
| Tucker, Capital | | 4,600 |
| | | |
| Tucker, Capital ($45,000 + $5,400 – $4,600) | 55,000 | |
| Cash | | 15,000 |
| Note Payable | | 40,000 |

3. Full goodwill recorded

| | | |
|---|---|---|
| Goodwill ($4,600/0.20) | 23,000 | |
| Kazma, Capital ($23,000 × 0.4) | | 9,200 |
| Folkert, Capital | | 9,200 |
| Tucker, Capital | | 4,600 |
| | | |
| Tucker, Capital | 55,000 | |
| Cash | | 15,000 |
| Note Payable | | 40,000 |

## ANSWERS TO PROBLEMS

### Problem 15-1

1. If the agreement does not provide for a profit-sharing ratio, the UPA provides that profits are to be shared equally. Therefore Day and Night would each get $34,200 allocation.

2.

| | | |
|---|---|---|
| Day | Allocation 0.60 × $68,400 = | $41,040 |
| Night | Allocation 0.40 × $68,400 = | 27,360 |
| | Total | $68,400 |

3.

| | Day | Night | Total |
|---|---|---|---|
| Capital Balance 1/1 | $75,000 | $37,500 | $112,500 |
| + Investments | 56,250 | 18,750 | 75,000 |
| - Withdrawals | (18,750) | (9,375) | (28,125) |
| Balance 12/31 | $112,500 | $46,875 | $159,375 |

Profit Allocation:

Day: $\frac{\$112{,}500}{\$159{,}375} \times \$68{,}400 \quad = \quad \$48{,}282$

Night: $\frac{\$46{,}875}{\$159{,}375} \times \$68{,}400 \quad = \quad 20{,}118$

$68,400

4.

| | | Day | | Portion of Year Maintained | Weighted Average | Average Balance |
|---|---|---|---|---|---|---|
| 1/1 Balance | | $75,000 | × | 3/12 | $18,750 | |
| Withdrawal 4/1 | $18,750 | 56,250 | × | 2/12 | 9,375 | |
| Investment 6/1 | 37,500 | 93,750 | × | 5/12 | 39,063 | |
| Investment 11/1 | 18,750 | 112,500 | × | 2/12 | 18,750 | |
| Average Balance | | | | 12/12 | $85,938 | $85,938* |

| | | Night | | | | |
|---|---|---|---|---|---|---|
| 1/1 Balance | | $37,500 | × | 6/12 | $18,750 | |
| Investment 7/1 | $18,750 | 56,250 | × | 3/12 | 14,063 | |
| Withdrawal 10/1 | 9,375 | 46,875 | × | 3/12 | 11,719 | |
| Average Balance | | | | 12/12 | $44,532 | 44,532** |
| | | | | | | $130,470 |

Profit Allocation:

Day: $\frac{\$85{,}938}{\$130{,}470} \times \$68{,}400 \quad = \quad \$45{,}054$

Night: $\frac{\$44{,}532}{\$130{,}470} \times \$68{,}400 \quad = \quad 23{,}346$

Total $68,400

**Problem 15-1 (continued)**

| | Day | Night | Total |
|---|---|---|---|
| 5. Interest on average balance | *$ 12,891 | **$ 6,680 | $ 19,571 |
| Salaries | 15,000 | 8,250 | 23,250 |
| | 27,891 | 14,930 | 42,821 |
| Remainder of $25,579 divided equally | 12,790 | 12,789 | 25,579 |
| | $40,681 | $27,719 | $68,400 |

* 0.15 × $85,938 = $12,891 (see part 4)

** 0.15 × $44,532 = $6,680 (see part 4)

**Problem 15-2**

**Part A** DAVE, BRIAN, AND PAUL PARTNERSHIP
Statement of Changes in Partners' Capital Accounts
For the Years Ended December 31, 2008, 2009, and 2010

| December 31, 2008 | Dave | Brian | Paul | Total |
|---|---|---|---|---|
| Beginning Capital Balances - 1/1 | $45,000 | $45,000 | $45,000 | $135,000 |
| Add: Investments | 15,000 | 15,000 | 6,000 | 36,000 |
| | 60,000 | 60,000 | 51,000 | 171,000 |
| Less: Withdrawals | (17,000) | (7,000) | (3,200) | (27,200) |
| Net loss allocation | (1,800) | (1,800) | (1,800) | (5,400) |
| Capital Balances - 12/31 | $41,200 | $51,200 | $46,000 | $138,400 |
| **December 31, 2009** | | | | |
| Beginning Capital Balances - 1/1 | $41,200 | $51,200 | $46,000 | $138,400 |
| Add: Investments | 0 | 0 | 6,000 | 6,000 |
| Net income allocation (40:30:30) | 10,800 | 8,100 | 8,100 | 27,000 |
| | 52,000 | 59,300 | 60,100 | 171,400 |
| Less: Withdrawals | (17,000) | (7,000) | (3,200) | (27,200) |
| Capital Balances - 12/31 | $35,000 | $52,300 | $56,900 | $144,200 |
| **December 31, 2010** | | | | |
| Beginning Capital Balances - 1/1 | $35,000 | $52,300 | $56,900 | $144,200 |
| Add: Investments | 0 | 0 | 6,000 | 6,000 |
| Net income allocation: | | | | |
| Salaries | 42,000 | 30,000 | 18,000 | 90,000 |
| Bonus * | | 8,889 | | 8,889 |
| Interest | 3,500 | 5,230 | 5,690 | 14,420 |
| Residual – Equally divided | 2,230 | 2,231 | 2,230 | 6,691 |
| | 47,730 | 46,350 | 25,920 | 120,000 |
| | 82,730 | 98,650 | 88,820 | 270,200 |
| Less: Withdrawals | (19,000) | (9,000) | (3,200) | (31,200) |
| Capital Balances - 12/31 | $63,730 | $89,650 | $85,620 | $239,000 |

*Bonus = 0.08 × (NI - B)
B = 0.08 × ($120,000 - B) = $9,600 - .08B
1.08B = $9,600
B = $8,889

**Problem 15-2 (continued)**

**Part B** Closing Journal Entries:

| | | |
|---|---|---|
| December 31, 2008 | | |
| Dave, Capital | 1,800 | |
| Brian, Capital | 1,800 | |
| Paul, Capital | 1,800 | |
| Income Summary | | 5,400 |
| | | |
| December 31, 2009 | | |
| Income Summary | 27,000 | |
| Dave, Capital | | 10,800 |
| Brian, Capital | | 8,100 |
| Paul, Capital | | 8,100 |
| | | |
| December 31, 2010 | | |
| Income Summary | 120,000 | |
| Dave, Capital | | 47,730 |
| Brian, Capital | | 46,350 |
| Paul, Capital | | 25,920 |

**Problem 15-3**

| | Adjustments to 2007 Income | Adjustments to 2008 Income |
|---|---|---|
| 2. Prepaid insurance expensed in 2007 | $800 | $(800)[a] |
| Prepaid insurance expensed in 2008 | --- | 700 |
| Advances from customers in 2007 | (1,500) | 1,500[b] |
| Advances from customers in 2008 | --- | (900) |
| Accrued interest expense | (450) | 450[c] |
| 3. Add back provision for inventory decline | | 8,000 |
| 4. Add back purchase price of equipment expensed less depreciation expense of $880 | | 3,520[d] |
| 5. Deduct (add) adjustment to allowance account | (1,200) | 160[e] |
| 6. Deduct goodwill recognized | | (5,000) |
| Total adjustment to capital accounts | $(2,350) | $7,630 |

[a] This assumes that the prepaid insurance expires in the next year.

[b] This assumes that the advances are earned in the next year.

[c] This assumes that the interest expense was deducted in 2008.

[d] Depreciation expense = $4,400 × 0.20 = $880

| | 2007 | | 2008 |
|---|---|---|---|
| [e] 2% of current receivables (0.02 × $50,000) | $1,000 | (0.02 × $32,000) | $640 |
| 5% of past due receivables (0.05 × $4,000) | 200 | (0.05 × $8,000) | 400 |
| Allowance account balance at 12/31 | $1,200 | | $1,040 |

**Problem 15-3 (continued)**

Allowance for Bad Debts

| | | | |
|---|---|---|---|
| Write-off-2008 | 1,800 | 1/1 | 1,200 |
| | | Adjustment | 1,640 |
| | | 12/31 Bal. | 1,040 |

During 2008, $1,800 was written off and debited to expense
Adjustment to income is $160 or ($1,800 - $1,640)

Analysis of Change in Capital Accounts

| | | 2007 Adjustment | | 2008 Adjustment | Total |
|---|---|---|---|---|---|
| Cain | 1/3 | $(783) | 0.40 | $3,052 | $2,269 |
| Gallo | 1/3 | (783) | 0.40 | 3,052 | 2,269 |
| Hamm | 1/3 | (784) | 0.20 | 1,526 | 742 |
| | | $(2,350)* | | $7,630 | $5,280 |

*Number is rounded: $\left(\frac{\$2,350}{3}\right) = \$783.33$

**Problem 15-3 (continued)**

Cain, Gallo, and Hamm Partnership
Adjusted Trial Balance
December 31, 2008

| | Unadjusted Balance | | Adjustment | | Adjusted Balance 12/31/2008 | |
|---|---|---|---|---|---|---|
| | Dr. | Cr. | Dr | Cr | Dr. | Cr. |
| Cash | $15,000 | | | | $15,000 | |
| Accounts Receivable | 40,000 | | | | 40,000 | |
| Inventory | 30,000 | | | | 30,000 | |
| Land | 9,000 | | | | 9,000 | |
| Buildings | 50,000 | | | | 50,000 | |
| Allowance for Depreciation of Buildings | | 6,000 | | | | 6,000 |
| Equipment | 56,000 | | 4,400 | | 60,400 | |
| Allowance for Depreciation of Equipment | | 6,000 | | 880 | | 6,880 |
| Goodwill | 5,000 | | | 5,000 | | |
| Accounts Payable | | 56,000 | | | | 56,000 |
| Allowance for Future Inventory Losses | | 8,000 | 8,000 | | | |
| Cain, Capital | | 37,000 | | 2,269 | | 39,269 |
| Gallo, Capital | | 60,000 | | 2,269 | | 62,269 |
| Hamm, Capital | | 32,000 | | 742 | | 32,742 |
| Prepaid Insurance | | | 700 | | 700 | |
| Advances from Customers | | | | 900 | | 900 |
| Allowance for Doubtful Accounts | | | | 1,040 | | 1,040 |
| | $205,000 | $205,000 | $13,100 | $13,100 | $205,100 | $205,100 |

## Problem 15-4

1. Book value of interest acquired = ($180,000 + $90,000) × 1/3 = $90,000

   Bonus Method

   | | | |
   |---|---|---|
   | Cash | 90,000 | |
   | Moore, Capital | | 90,000 |

2. Book value of interest acquired = ($180,000 + $120,000) × 0.45 = $135,000
   Book value of interest is greater than assets invested.

   Bonus Method

   | | | |
   |---|---|---|
   | Cash | 120,000 | |
   | Brown, Capital (0.60 × $15,000) | 9,000 | |
   | Coss, Capital (0.40 × $15,000) | 6,000 | |
   | Moore, Capital | | 135,000 |

   The goodwill method is not applicable because the partners agreed to total capital interest of $300,000.

3. Book value of interest acquired ($180,000 + $120,000) × $\frac{1}{3}$ = $100,000

   Bonus method can not be used because Moore will not accept less than $120,000 capital interest.

   Goodwill Method

   | | |
   |---|---|
   | Total capital implied from contract [$120,000/(1/3)] | $360,000 |
   | Minus current capital balance + Moore's investment ($180,000 + $120,000) | 300,000 |
   | Goodwill | $60,000 |

   | | | |
   |---|---|---|
   | Goodwill | 60,000 | |
   | Brown, Capital (0.60 × $60,000) | | 36,000 |
   | Coss, Capital (0.40 × $60,000) | | 24,000 |
   | | | |
   | Cash | 120,000 | |
   | Moore, Capital | | 120,000 |

4. Book value of interest acquired ($180,000 + $40,000) × ¼ = $55,000
   Book value of interest acquired is greater than assets invested.

   Bonus Method

   | | | |
   |---|---|---|
   | Cash | 40,000 | |
   | Brown, Capital (0.60 × $15,000) | 9,000 | |
   | Coss, Capital (0.40 × $15,000) | 6,000 | |
   | Moore, Capital | | 55,000 |

**Problem 15-4 (continued)**

5. Book value of interest acquired ($180,000 + $35,000) × 0.20 = $43,000
Book value of interest acquired is greater than the asset invested.

Goodwill Method

| | |
|---|---|
| Total capital | $225,000 |
| Minus recorded value of net assets + Moore's investment ($180,000 + $35,000) | 215,000 |
| Goodwill | $10,000 |

| | | |
|---|---|---|
| Cash | 35,000 | |
| Goodwill | 10,000 | |
| Moore, Capital | | 45,000 |

6. Book value of interest acquired ($180,000 + $150,000) × (1/3) = $110,000
Book value of interest acquired is less than asset invested.

Bonus Method

| | | |
|---|---|---|
| Land | 150,000 | |
| Brown, Capital (0.60 × $40,000) | | 24,000 |
| Coss, Capital (0.40 × $40,000) | | 16,000 |
| Moore, Capital | | 110,000 |

Goodwill Method

| | |
|---|---|
| Net value of firm implied by contract [$150,000/(1/3)] | $450,000 |
| Minus current capital + Moore's investment ($180,000 + $150,000) | 330,000 |
| Goodwill | $120,000 |

| | | |
|---|---|---|
| Goodwill | 120,000 | |
| Brown, Capital (0.60 × $120,000) | | 72,000 |
| Coss, Capital (0.40 × $120,000) | | 48,000 |
| | | |
| Land | 150,000 | |
| Moore, Capital | | 150,000 |

7. Bonus Method

| | | |
|---|---|---|
| Brown, Capital (0.30 × $92,000) | 27,600 | |
| Coss, Capital (0.30 × $88,000) | 26,400 | |
| Moore, Capital | | 54,000 |

**Problem 15-5**

**Part A**

| | | | |
|---|---|---|---|
| 1. | Bad Debt Expense | 1,680 | |
| | Allowance for Doubtful Accounts (0.05 × $33,600 = $1,680) | | 1,680 |
| | | | |
| 2. | Inventory | 5,500 | |
| | Unrealized Gain on Revaluation of Inventory<br>($41,250 - $35,750 = $5,500) | | 5,500 |
| | | | |
| 3. | Land | 38,000 | |
| | Unrealized Gain on Revaluation of Land<br>($65,000 - $27,000 = $38,000) | | 38,000 |
| | | | |
| 4. | Unrealized Loss on Revaluation of Building | 8,850 | |
| | Building ($41,600 - $32,750 = $8,850) | | 8,850 |
| | | | |
| 5. | Operating Expenses | 3,275 | |
| | Accrued Liabilities | | 3,275 |

6. Total adjustment to capital accounts is $29,695 (credit)

| | | |
|---|---|---|
| Unrealized Gain on Revaluation of Inventory | 5,500 | |
| Unrealized Gain on Revaluation of Land | 38,000 | |
| Bad Debt Expense | | 1,680 |
| Unrealized Loss on Revaluation of Building | | 8,850 |
| Operating Expenses | | 3,275 |
| Cox, Capital (0.40 × $29,695) | | 11,878 |
| Andrews, Capital (0.30 × $29,695) | | 8,909 |
| Bennet, Capital (0.30 × $29,695) | | 8,908 |

**Part B** Book value of interest ($129,695 + $20,305*) × 0.25 = $37,500

* $150,000 - $129,695

Bonus Method

| | | |
|---|---|---|
| Cash | 20,305 | |
| Cox, Capital (0.40 × $17,195) | 6,878 | |
| Andrews, Capital (0.30 × $17,195) | 5,159 | |
| Bennet, Capital (0.30 × $17,195) | 5,158 | |
| Meyers, Capital | | 37,500 |

**Problem 15-5 (continued)**

**Part C**

CAB & M Partnership
Balance Sheet
December 31, 2008

| | | |
|---|---|---|
| Assets | | |
| Cash ($8,000 + $20,305) | | $28,305 |
| Accounts Receivable | $33,600 | |
| Allowance for Doubtful Accounts | 1,680 | 31,920 |
| Inventory | | 41,250 |
| Land | | 65,000 |
| Building (net of depreciation) | | 32,750 |
| Equipment (net of depreciation) | | 27,250 |
| Total Assets | | $226,475 |
| | | |
| Liabilities and Capital | | |
| Accounts Payable | | $32,450 |
| Other Current Liabilities ($6,750 + $3,275) | | 10,025 |
| Long-Term Note (8% due 2012) | | 34,000 |
| Cox, Capital | | 42,500 |
| Andrews, Capital | | 28,750 |
| Bennet, Capital | | 41,250 |
| Meyers, Capital | | 37,500 |
| Total Liabilities and Capital | | $226,475 |

| | Before | | Bonus | |
|---|---|---|---|---|
| | Adjustment | Adjustment | to Meyers | Balance |
| Cox | $37,500 | $11,878 | ($6,878) | $42,500 |
| Andrews | 25,000 | 8,909 | (5,159) | 28,750 |
| Bennet | 37,500 | 8,908 | (5,158) | 41,250 |
| Total | $100,000 | $29,695 | ($17,195) | 112,500 |

**Problem 15-6**

Entry to be made before recording the withdrawal of Allen

| | | |
|---|---|---|
| Inventory | 6,000 | |
| Interest Payable ($22,000 × 0.08 × 4/12) | | 587 |
| Dave, Capital ($5,413 × 0.50) | | 2,706 |
| Allen, Capital ($5,413 × 0.30) | | 1,624 |
| Matt, Capital ($5,413 × 0.20) | | 1,083 |

Allen now has a capital balance of $111,624 or ($110,000 + $1,624)

| | | |
|---|---|---|
| 1. Allen, Capital | 111,624 | |
| Cash | | 36,624 |
| Note Payable | | 75,000 |
| | | |
| 2. Allen, Capital | 111,624 | |
| Matt, Capital | | 111,624 |
| | | |
| 3. Allen, Capital | 111,624 | |
| Dave, Capital (50/70 × $13,376) | 9,554 | |
| Matt, Capital (20/70 × $13,376) | 3,822 | |
| Cash | | 35,000 |
| Equipment | | 90,000 |
| | | |
| 4. Allen, Capital | 111,624 | |
| Dave, Capital (50/70 × $11,624) | | 8,303 |
| Matt, Capital (20/70 × $11,624) | | 3,321 |
| Cash | | 100,000 |
| | | |
| 5. Allen, Capital | 111,624 | |
| Dave, Capital (¼ × $111,624) | | 27,906 |
| Matt, Capital (¾ × $111,624) | | 83,718 |

## Problem 15-7

| | Neal | Palmer | Ruppe |
|---|---|---|---|
| 1. Capital balances before withdrawal | $250,000 | $150,000 | $100,000 |
| Allocate goodwill* | 50,000 | 37,500 | 37,500 |
| | 300,000 | 187,500 | 137,500 |
| Withdrawal of Neal | (300,000) | | |
| | | 187,500 | 137,500 |
| Write-off Impaired Goodwill ($125,000 × 0.50) | | (62,500) | (62,500) |
| | $ 0 | $125,000 | $75,000 |
| | | | |
| Capital balances using the bonus method** | | $125,000 | $75,000 |

| | Neal | Palmer | Ruppe |
|---|---|---|---|
| 2. Capital balances before withdrawal | $250,000 | $150,000 | $100,000 |
| Allocation of goodwill* | 50,000 | 37,500 | 37,500 |
| | 300,000 | 187,500 | 137,500 |
| Withdrawal of Neal | (300,000) | | |
| | - 0 - | 187,500 | 137,500 |
| Write-off Impaired Goodwill | | | |
| $125,000 × 0.60 | | (75,000) | |
| $125,000 × 0.40 | | | (50,000) |
| | $ - 0 - | $112,500 | $87,500 |
| | | | |
| Capital balances using the bonus method** | | $125,000 | $75,000 |

*Goodwill computation:

Excess payment = $300,000 - $250,000 = $50,000

Total goodwill = $\frac{\$50,000}{0.40}$ = $125,000

**The excess paid to Neal of $50,000 would have been divided equally between Palmer and Ruppe as follows:

| | Palmer | Ruppe |
|---|---|---|
| Capital balance before withdraw | $150,000 | $100,000 |
| Allocation of excess paid to Neal | (25,000) | (25,000) |
| Capital balance using bonus method | $125,000 | $75,000 |

## Problem 15-8

| | | |
|---|---|---|
| 1. Cash | 20,000 | |
| Inventory | 15,000 | |
| Equipment | 67,000 | |
| Snow, Capital | | 102,000 |
| | | |
| Cash | 50,000 | |
| Land | 120,000 | |
| Mortgage Payable | | 40,000 |
| Waite, Capital | | 130,000 |

## Problem 15-8 (continued)

| | | |
|---|---|---|
| 2. Snow, Capital | 7,680 | |
| Waite, Capital | 16,320 | |
| Income Summary | | 24,000 |

| | Snow | Waite | Total |
|---|---|---|---|
| Net loss to be allocated | | | |
| Interest on capital investment | | | |
| $102,000 × 10% | $10,200 | | |
| $130,000 × 10% | | $13,000 | $23,200 |
| Salaries to partners | 15,000 | 20,000 | 35,000 |
| | | | 58,200 |
| Allocation 40:60 | (32,880) | (49,320) | (82,200) |
| Net loss allocated to partners | $(7,680) | $(16,320) | $(24,000) |

| | | |
|---|---|---|
| 3. Cash | 70,000 | |
| Snow, Capital ($13,400 × 40%) | 5,360 | |
| Waite, Capital ($13,400 × 60%) | 8,040 | |
| Young, Capital | | 83,400 |

| | |
|---|---|
| Capital interest of Snow ($102,000 - $7,680) | $94,320 |
| Capital interest of Waite ($130,000 - $16,320) | 113,680 |
| Investment of Young | 70,000 |
| Total capital interest in new partnership | 278,000 |
| Percentage acquired by Young | 30% |
| Capital interest of Young | 83,400 |
| Investment by Young | (70,000) |
| Bonus to Young | $13,400 |

| | | |
|---|---|---|
| 4. Income Summary | 150,000 | |
| Snow, Capital ($150,000 × 20%) | | 30,000 |
| Waite, Capital ($150,000 × 50%) | | 75,000 |
| Young, Capital ($150,000 × 30%) | | 45,000 |

| | | |
|---|---|---|
| 5. Snow, Capital* | 118,960 | |
| Waite, Capital ($18,960 × 50/80) | | 11,850 |
| Young, Capital ($18,960 × 30/80) | | 7,110 |
| Cash | | 40,000 |
| Note Payable | | 60,000 |

*$102,000 - $7,680 - $5,360 + $30,000 = $118,960

**Problem 15-9**

**Part A**

DISCOUNT PARTNERSHIP
Worksheet to Adjust and Combine the Partnerships' Accounts
June 30, 2008

| | Up & Down Trial Balance June 30, 2008 | | Back & Forth Trial Balance June 30, 2008 | | Four Partners' Adjusting and Combining Entries | | Discount Stores Beginning Balances | |
|---|---|---|---|---|---|---|---|---|
| Cash | $25,000 | | $20,000 | | | | $45,000 | |
| Accounts Receivable | 90,000 | | 140,000 | | | | 230,000 | |
| Allowance for Doubtful Accounts | | 2,000 | | 6,000 | (2) 400 | (1) 1,600 | | 9,200 |
| Merchandise Inventory | 180,000 | | 115,000 | | (3) 28,750 | | 323,750 | |
| Land | 25,000 | | 35,000 | | | | 60,000 | |
| Buildings & Equipment | 80,000 | | 125,000 | | | | 205,000 | |
| Allowance For Depreciation | | 24,000 | | 61,000 | | (4) 15,040 | | 100,040 |
| Prepaid Expenses | 6,000 | | 8,000 | | | | 14,000 | |
| Accounts Payable | | 42,000 | | 54,000 | | (5) 4,000 | | 100,000 |
| Notes Payable | | 65,000 | | 74,000 | | | | 139,000 |
| Accrued Expenses | | 34,000 | | 44,000 | | (6) 4,000 | | 82,000 |
| Up, Capital | | 95,000 | | | (1) 640 | (7) 1,656 | | 90,000 |
| | | | | | (4) 6,016 | | | |
| Down, Capital | | 144,000 | | | (1) 960 | (7) 984 | | 135,000 |
| | | | | | (4) 9,024 | | | |
| Back, Capital | | | | 65,000 | (5) 1,200 | (2) 120 | | 67,500 |
| | | | | | (6) 1,200 | (3) 8,625 | | |
| | | | | | (7) 3,845 | | | |
| Forth, Capital | | | | 139,000 | (5) 2,800 | (2) 280 | | 157,500 |
| | | | | | (6) 2,800 | (3) 20,125 | | |
| | | | | | | (7) 3,695 | | |
| | $406,000 | $406,000 | $443,000 | $443,000 | | | | |
| Goodwill | | | | | (7) 2,490 | | 2,490 | |
| | | | | | $60,125 | $60,125 | $880,240 | $880,240 |

**Problem 15-9 (continued)**

(1,2) To adjust allowance for doubtful accounts to 4% of receivables.
Up and Down: $90,000 × 0.04 = $3,600 - $2,000 = $1,600 credit
Back and Forth: $140,000 × 0.04 = $5,600 - $6,000 = $400 debit

(3) To adjust inventory to FIFO valuation method 0.80 × X = $115,000
X = $143,750 - $115,000 = $28,750

(4) To adjust the allowance for depreciation account to an accumulation of depreciation for 3 years computed by the double-declining balance method

| | | |
|---|---|---|
| Desired accumulated depreciation balance: $16,000 + $12,800 + $10,240* | = | $39,040 |
| Depreciation provided | | 24,000 |
| Adjustment needed | | $15,040 |

* $80,000 × 0.20 = $16,000
$64,000 × 0.20 = $12,800
$51,200 × 0.20 = $10,240

(5) To record unrecorded merchandise purchase
(6) To record vacation pay accrual ($200 × 10 × 2)
(7) To adjust capital account as agreed

| | Up | Down | Back | Forth | Total |
|---|---|---|---|---|---|
| Unadjusted Capital Balances | $95,000 | $144,000 | $65,000 | $139,000 | $443,000 |
| Net Adjustments | (6,656) | (9,984) | 6,345 | 14,805 | 4,510 |
| Adjusted Capital Balance | 88,344 | 134,016 | 71,345 | 153,805 | 447,510 |
| Opening Capital Balances* | 90,000 | 135,000 | 67,500 | 157,500 | 450,000 |
| Distribution of Goodwill | $1,656 | $984 | $(3,845) | $3,695 | $2,490 |

( ) debit

| | | |
|---|---|---|
| * Up | $450,000 × 0.20 = | $90,000 |
| Down | $450,000 × 0.30 = | $135,000 |
| Back | $450,000 × 0.15 = | $67,500 |
| Forth | $450,000 × 0.35 = | $157,500 |

(0.20 + 0.30)X = $225,000
X = $450,000

**Problem 15-9 (continued)**

**Part B** Computation of Cash Settlement Between Partners

| | Between Up & Down | | | Between Back & Forth | | |
|---|---|---|---|---|---|---|
| | Total | Up | Down | Total | Back | Forth |
| Adjusted Capital Balances Excluding Goodwill | $222,360 | $88,344 | $134,016 | $225,150 | $71,345 | $153,805 |
| Capital in Excess of Book Value | 2,640 | 1,056 | 1,584 | (150) | (45) | (105) |
| | 225,000 | 89,400 | 135,600 | 225,000 | 71,300 | 153,700 |
| Opening Capital Balances | 225,000 | 90,000 | 135,000 | 225,000 | 67,500 | 157,500 |
| Settlement Between Parties | $0 | $600 | $(600) | $0 | $(3,800) | $3,800 |

$2,640 × 0.40 = $1,056 ($150) × 0.30 = ($45)
$2,640 × 0.60 = $1,584 ($150) × 0.70 = ($105)

# CHAPTER 16

## ANSWERS TO QUESTIONS

1. Realization gains or losses are allocated to partners in their profit and loss ratio because the changes in asset values are the result of risk assumed by the partnership. Also, because it may be difficult to separate gains and losses that result from liquidation from the under- or over-statement in book values that result from accounting policies followed in prior years.

2. The final cash distribution is based on capital balances, not on profit and loss ratios, since the capital balance represents the partners' "residual claims" to the assets remaining after settlement of partnership obligations.

3. Because the UPA order of payment ranks partnership obligations to a partner ahead of asset distributions to a partner for capital investments, a debit balance in a partner's capital account will create problems when that partner has an outstanding loan balance. Other partners will have a claim against this partner for the amount of his/her debit balance which is considered to be an asset of the partnership by the UPA. If the partner with a debit balance settles his/her obligation with the partnership, there is no problem. However, if he/she can't settle, the other partners must absorb the deficit as a loss, even though the partner with the debit balance had received cash for his/her outstanding loan balance. To avoid this inequity, the courts have recognized the right of the partnership to offset the loan balance against the debit capital balance.

4. Maintaining separate accounts for outstanding loan and capital accounts recognizes the legal distinction between the two. This would be important if the liquidation is carried on over an extended period, since the UPA provides that a partner is entitled to accrued interest on the loan balance.

5. When the equity interest of one partner is inadequate to absorb realization losses several alternative outcomes are possible. If the partner is personally solvent, he may pay the partnership for the amount he is liable. If he/she is personally insolvent then the other partners must absorb his/her debit balance in their respective profit and loss ratio. If the other partners are unsure of what the partner with the debit balance will do, but still wish to distribute cash, they can assume the worst (absorbing their share of the debit balance) to determine what amount of cash can be safely distributed.

6. Cash should not be distributed to any partner until all liquidation losses are recognized in the accounts or are provided for in determining a safe cash payment.

7. The classification of assets into personal and partnership categories in recognition of the rights of both partnership creditors and creditors of the individual partners is referred to as "marshalling of assets."

8. To the extent that personal creditors do not recover from personal assets they can seek recovery from those partnerships assets still available after partnership obligations have been met. This recovery, however, is limited to the extent that the partner involved has a credit interest in partnership assets.

9. Because in an installment liquidation the amount of cash to be received from the unsold assets and the resulting gain or loss is unknown, the partners should view each cash distribution as if it were the final distribution.

10. The three assumptions upon which a safe cash distribution is determined are (1) any loan balances to partners are offset against their capital accounts, (2) the remaining noncash assets will not generate any more cash, and (3) any partner with a deficit capital balance will not settle his/her obligation to the partnership. In other words, assume the worst.
    The safe cash balance is computed as the difference between the current capital balances and the balance required to maintain the above assumptions.

11. Unexpected costs are added to the book value of noncash assets. When the potential loss on the noncash assets is allocated in the determination of a safe payment, these costs are also included.

12. The objective of the procedure is to bring the balance of the partners' capital accounts into the agreed profit and loss ratio as soon as possible so that no one partner is placed in a better position than any other partner.

13. The "loss absorption potential" is determined by dividing the partners' net capital balances by their respective profit ratio. This determines the maximum amount of loss each partner can absorb.

14. The Uniform Partnership Act provides that the liabilities of the partnership shall rank in order of payment as follows:

    (1)Those owing to creditors other than partners,
    (2)Those owing to partners other than for capital and profits,
    (3)Those owing to partners in respect of capital,
    (4)Those owing to partners in respect of profits.

**Business Ethics Solution**

Business ethics solutions are merely suggestions of points to address. The objective is to raise the students' awareness of the topics, and to invite discussion. In most cases, there is clear room for disagreement or conflicting viewpoints.

1) Partnership laws grant each partner the right to information about the firm’s business. This allows each partner to monitor the firm’s activities. Given the circumstances of the case, it would be your duty to inspect any questionable transaction. Furthermore, you should ask the partner to explain the reason for increasing the cost by $10,000. This would give you the opportunity to raise the concern regarding the presence of the previously undetected rock. If the additional charge is not based on fact, the cost should be removed.
2) In the present scenario, it appears that the partner might be experiencing personal financial pressures. However, the firm’s reputation and future implications of the action must be considered for the benefit of the partnership. Your loyalty to your partner does not alter these responsibilities. You may wish to find other, more constructive ways to offer assistance to your partner in meeting his personal obligations, and surviving what may be a difficult time in his life. However, ignoring the situation is dishonest to the client and is likely to result in more serious long-term consequences.

Reference: http://www.lrc.ky.gov/KRS/362-01/403.PDF

## ANSWERS TO EXERCISES

Exercise 16-1

**Part A**

| | (30%) | (50%) | (20%) |
|---|---|---|---|
| | Cook | Parks | Argo |
| Capital balances | $(30,000) | $(10,000) | $(15,000) |
| Loan balances | | (10,000) | |
| Net interest | (30,000) | (20,000) | (15,000) |
| Potential loss - $50,000 | 15,000 | 25,000 | 10,000 |
| | (15,000) | 5,000 | (5,000) |
| Potential loss - $5,000 | 3,000 | (5,000) | 2,000 |
| Cash distribution | $(12,000) | $ - 0 - | $(3,000) |

| | | |
|---|---|---|
| Liabilities | 25,000 | |
| Cash | | 25,000 |
| | | |
| Cook, Capital | 12,000 | |
| Argo, Capital | 3,000 | |
| Cash | | 15,000 |

**Part B**

| | | |
|---|---|---|
| Cash | 15,000 | |
| Cook, Capital ($35,000 × 0.30) | 10,500 | |
| Parks, Capital ($35,000 × 0.50) | 17,500 | |
| Argo, Capital ($35,000 × 0.20) | 7,000 | |
| Other Assets | | 50,000 |
| | | |
| Parks, Loan | 10,000 | |
| Parks, Capital | | 10,000 |
| | | |
| Parks, Capital ($10,000 - $17,500 + $10,000) | 2,500 | |
| Cook, Capital | 7,500 | |
| Argo, Capital | 5,000 | |
| Cash | | 15,000 |

## Exercise 16-2

**Part A**

| | Cash | Noncash Assets | Liabilities | Capital Balances John | Jake | Joe |
|---|---|---|---|---|---|---|
| Account balances | $70,000 | $260,000 | $(98,000) | $(90,000) | $(78,000) | $(64,000) |
| Sale of assets | 270,000 | (260,000) | | (3,000) | (4,000) | (3,000) |
| | 340,000 | 0 | (98,000) | (93,000) | (82,000) | (67,000) |
| Payment to creditors | (98,000) | | 98,000 | | | |
| | 242,000 | 0 | | (93,000) | (82,000) | (67,000) |
| Cash distribution | (242,000) | | | 93,000 | 82,000 | 67,000 |
| | $ - 0 - | $ - 0 - | $ - 0 - | $ - 0 - | $ - 0 - | $ - 0 - |

**Part B**

| | | Debit | Credit |
|---|---|---|---|
| 1. | Cash | 270,000 | |
| | Other Assets | | 260,000 |
| | John, Capital | | 3,000 |
| | Jake, Capital | | 4,000 |
| | Joe, Capital | | 3,000 |
| 2. | Liabilities | 98,000 | |
| | Cash | | 98,000 |
| 3. | John, Capital | 93,000 | |
| | Jake, Capital | 82,000 | |
| | Joe, Capital | 67,000 | |
| | Cash | | 242,000 |

## Exercise 16-3

| | (1/3) Doug | (1/3) Dave | (1/3) Dan |
|---|---|---|---|
| Capital balances | $(55,000) | $(50,000) | $8,000 |
| Estimated loss on sale of assets ($45,000) | 15,000 | 15,000 | 15,000 |
| | (40,000) | (35,000) | 23,000 |
| Allocate debit balance | 11,500 | 11,500 | (23,000) |
| Estimated cash payment | $(28,500) | $(23,500) | $ - 0 - |

**Exercise 16-4**

| | (1/5)<br>Amos | (2/5)<br>Boone | (2/5)<br>Childs |
|---|---|---|---|
| Capital balances | $(49,000) | $(18,000) | $(10,000) |
| Drawing account | 10,000 | 15,000 | 20,000 |
| Loans | | (8,000) | (25,000) |
| Operating loss | 4,200 | 8,400 | 8,400 |
| Liquidation loss | 2,400 | 4,800 | 4,800 |
| | (32,400) | 2,200 | (1,800) |
| Allocate debit balance | 733 | (2,200) | 1,467 |
| Cash distribution | $(31,667) | $0 | $(333) |

The first $40,000 is paid to satisfy the claims of creditors.

**Exercise 16-5**

| | | | | Capital Balances | | |
|---|---|---|---|---|---|---|
| | Cash | Noncash Assets | Liabilities | Brink 40% | Davis 40% | Olsen 20% |
| Account balances | $10,000 | $130,000 | $(18,000) | $(45,000) | $(27,000) | $(50,000) |
| Sale of inventory, collect accounts receivable - allocate loss | 38,000 | (43,000) | | 2,000 | 2,000 | 1,000 |
| | 48,000 | 87,000 | (18,000) | (43,000) | (25,000) | (49,000) |
| Payment to creditors | (18,000) | | 18,000 | | | |
| | 30,000 | 87,000 | 0 | (43,000) | (25,000) | (49,000) |
| Payment to partners (Schedule 1) | (30,000) | | | 1,667 | | 28,333 |
| | $ 0 | $87,000 | $ 0 | $(41,333) | $(25,000) | $(20,667) |

Schedule 1

| | Brink | Davis | Olsen |
|---|---|---|---|
| Capital balances | $(43,000) | $(25,000) | $(49,000) |
| Allocation of potential loss | 34,800 | 34,800 | 17,400 |
| | (8,200) | 9,800 | (31,600) |
| Allocation of deficit | 6,533 | (9,800) | 3,267 |
| Safe Payment | $(1,667) | $ - 0 - | $(28,333) |

## Exercise 16-6

| | | | | Capital Balances | | |
|---|---|---|---|---|---|---|
| **Part A** | | Noncash | | Pete | Tom | Zack |
| | Cash | Assets | Liabilities | 40% | 30% | 30% |
| Balances | $15,000 | $110,000 | $(42,000) | $(55,000) | $(14,000) | $(14,000 |
| Sale of other assets and allocation of loss | 30,000 | (110,000) | 0 | 32,000 | 24,000 | 24,00 |
| | 45,000 | 0 | (42,000) | (23,000) | 10,000 | 10,00 |
| Allocate Zack's debit balance | | | | 5,714 | 4,286 | (10,000 |
| | 45,000 | 0 | (42,000) | (17,286) | 14,286 | 0 |
| Investment by Tom | 14,286 | | | | (14,286) | |
| | 59,286 | 0 | (42,000) | (17,286) | 0 | 0 |
| Payment to creditors | (42,000) | | 42,000 | | | |
| | 17,286 | 0 | 0 | (17,286) | 0 | 0 |
| Payment to Pete | (17,286) | | | 17,286 | | |
| | $0 | $0 | $0 | $0 | $0 | $0 |

Pete receives $17,286.
Tom makes an additional investment of $14,286.
Zack receives zero and cannot make an investment in the partnership because he is personally insolvent.

| **Part B** | Personal | Personal | Excess | Distribution from | Total Payable |
|---|---|---|---|---|---|
| | Assets | Liabilities | (Deficiency) | Partnership | to Creditors |
| Pete | $55,000 | $80,000 | $(25,000) | $17,286 | $72,286 |
| Tom | 30,000 | 10,000 | 20,000 | - - - | 10,000 |
| Zack | 30,000 | 50,000 | (20,000) | - - - | 30,000 |

## Exercise 16-7

1. c
2. c
3. a
4. d
5. d

## Exercise 16-8

1. c;  X = ¼ × ($690,000 + X);   X = $230,000
2. b
3. d
4. c
5. d

## Exercise 16-9

**Part A** The partnership creditors will receive payment before any distributions are made to the partners. The creditors can seek recovery from Q and S's personal assets after their personal creditors have been paid from their personal assets.

**Part B** The personal creditors have first claim to the personal assets. If they have not fully recovered the amount owed, they have a right to partnership assets after partnership creditors to the extent the partner has a credit interest in the partnership.

**Part C**

| | | | Capital Balance | | | |
|---|---|---|---|---|---|---|
| | Cash | Liabilities | Q | R | S | T |
| Balances | $ 0 | $(2,000) | $(500) | $(7,500) | $6,000 | $4,000 |
| Investment by Q | 2,000 | | (2,000) | | | |
| | 2,000 | (2,000) | (2,500) | (7,500) | 6,000 | 4,000 |
| Payment of Liabilities | (2,000) | 2,000 | | | | |
| | 0 | 0 | (2,500) | (7,500) | 6,000 | 4,000 |
| Allocation of T's deficit | | | 2,000 | 1,000 | 1,000 | (4,000) |
| | 0 | 0 | (500) | (6,500) | 7,000 | 0 |
| Investment by S | 7,000 | | | | (7,000) | |
| Payment to partners | (7,000) | | 500 | 6,500 | | |
| | $ 0 | $ 0 | $ 0 | $ 0 | $ 0 | $ 0 |

**Part D & E**

| | Personal Assets | Partnership Distribution | Total |
|---|---|---|---|
| R | $8,000 | $6,500 | $14,500 |
| T | 6,000 | - - - | 6,000 |

## Exercise 16-10

| | | Matt | Allen | Dave |
|---|---|---|---|---|
| **Part A** | Net capital interest | $54,000 | $30,000 | $18,000 |
| | Profit-loss ratio | 0.45 | 0.30 | 0.25 |
| | Loss absorption potential | $120,000 | 100,000 | $72,000 |
| | Order of cash distribution | 1 | 2 | 3 |

| | Loss Absorption Potential | | | Assets Distribution | | |
|---|---|---|---|---|---|---|
| | Matt | Allen | Dave | Matt | Allen | Dave |
| Profit-loss ratio | 0.45 | 0.30 | 0.25 | 0.45 | 0.30 | 0.25 |
| Loss absorption potential | $120,000 | $100,000 | $72,000 | | | |
| Net capital interest | | | | $54,000 | $30,000 | $18,000 |
| Distribution to Matt to reduce loss potential to Allen's | 20,000 | | | 9,000 | | |
| Balance after distribution | 100,000 | 100,000 | 72,000 | 45,000 | 30,000 | 18,000 |
| Distribution to Matt and Allen to reduce loss potential to Dave's | 28,000 | 28,000 | | 12,600 | 8,400 | |
| | $72,000 | $72,000 | $72,000 | $32,400 | $21,600 | $18,000 |
| Remainder of assets distributed | | | | 0.45 | 0.30 | 0.25 |

**Cash Distribution Plan**

| | | | Matt | Allen | Dave |
|---|---|---|---|---|---|
| Order of Cash Distribution | | Liabilities | 0.45 | 0.30 | 0.25 |
| 1. First | $18,000 | 100% | | | |
| 2. Next | $9,000 | | 100% | | |
| 3. Next | $21,000 | | 60% | 40% | |
| 4. Remainder | | | 45% | 30% | 25% |

| **Part B** | Matt | Allen | Dave |
|---|---|---|---|
| First $9,000 available to partner | $9,000 | | |
| Next $21,000 | 12,600 | $8,400 | |
| Total | 21,600 | $8,400 | $ - 0 - |

| | | |
|---|---|---|
| Matt, Loan | 10,000 | |
| Matt, Capital | 11,600 | |
| Allen, Capital | 8,400 | |
| Cash | | 30,000 |

## ANSWERS TO PROBLEMS

### Problem 16-1

**Part A - 1**

DISCOUNT PARTNERSHIP
Schedule of Partnership Liquidation
January 14, 2008

| | | | | Capital Balances | | |
|---|---|---|---|---|---|---|
| Explanation | Cash | Other Assets | Liabilities | Dawson | Feeney | Hardin |
| Balances before realization | $25,000 | $120,000 | $(40,000) | $(31,000) | $(65,000) | $(9,000) |
| Sales of noncash assets | 60,000 | (120,000) | | 18,000 | 24,000 | 18,000 |
| Balances | 85,000 | 0 | (40,000) | (13,000) | (41,000) | 9,000 |
| Payment of liabilities | (40,000) | | 40,000 | | | |
| Balances | 45,000 | 0 | 0 | (13,000) | (41,000) | 9,000 |
| Allocation of Hardin's debit balance | | | | 3,857 | 5,143 | (9,000) |
| Balances | 45,000 | 0 | 0 | (9,143) | (35,857) | 0 |
| Distribution of cash to partners | (45,000) | | | 9,143 | 35,857 | |
| Balances | $ 0 | $ 0 | $ 0 | $ 0 | $ 0 | $ 0 |

**Problem 16-1 (continued)**

**Part A - 2**

DISCOUNT PARTNERSHIP
Schedule of Partnership Liquidation
January 14, 2008

| | | | | Capital Balances | | |
|---|---|---|---|---|---|---|
| Explanation | Cash | Other Assets | Liabilities | Dawson | Feeney | Hardin |
| Balances before realization | $25,000 | $120,000 | $(40,000) | $(31,000) | $(65,000) | $(9,000) |
| Sales of noncash assets | 60,000 | (120,000) | | 18,000 | 24,000 | 18,000 |
| Balances | 85,000 | 0 | (40,000) | (13,000) | (41,000) | 9,000 |
| Payment of liabilities | (40,000) | | 40,000 | | | |
| Balances | 45,000 | 0 | 0 | (13,000) | (41,000) | 9,000 |
| Cash investment by Hardin | 9,000 | | | | | (9,000) |
| Balances | 54,000 | 0 | 0 | (13,000) | (41,000) | 0 |
| Distribution of cash to partners | (54,000) | | | 13,000 | 41,000 | |
| Balances | $0 | $0 | $0 | $0 | $0 | $0 |

**Problem 16-1 (continued)**

**Part A – 3**

DISCOUNT PARTNERSHIP
Schedule of Partnership Liquidation
January 14, 2008

| | | | | Capital Balances | | |
|---|---|---|---|---|---|---|
| Explanation | Cash | Other Assets | Liabilities | Dawson | Feeney | Hardin |
| Balances before realization | $25,000 | $120,000 | $(40,000) | $(31,000) | $(65,000) | $(9,000) |
| Sales of noncash assets | 50,000 | (120,000) | | 21,000 | 28,000 | 21,000 |
| Balances | 75,000 | 0 | (40,000) | (10,000) | (37,000) | 12,000 |
| Payment of liabilities | (40,000) | | 40,000 | | | |
| Balances | 35,000 | 0 | 0 | (10,000) | (37,000) | 12,000 |
| Cash investment by Hardin | 8,000 | | | | | (8,000) |
| Balances | 43,000 | 0 | 0 | (10,000) | (37,000) | 4,000 |
| Allocation of Hardin's deficit | | | | 1,714 | 2,286 | (4,000) |
| Balances | 43,000 | 0 | 0 | (8,286) | (34,714) | 0 |
| Distribution of cash to partners | (43,000) | | | 8,286 | 34,714 | |
| Balances | $0 | $0 | $0 | $0 | $0 | $0 |

**Part B**

| | | |
|---|---|---|
| Cash | 60,000 | |
| Dawson, Capital | 18,000 | |
| Feeney, Capital | 24,000 | |
| Hardin, Capital | 18,000 | |
| Other Assets | | 120,000 |
| | | |
| Liabilities | 40,000 | |
| Cash | | 40,000 |
| | | |
| Cash | 9,000 | |
| Hardin, Capital | | 9,000 |
| | | |
| Dawson, Capital | 13,000 | |
| Feeney, Capital | 41,000 | |
| Cash | | 54,000 |

**Problem 16-2**

| | | Other | | Capital & Loan Balances | | |
|---|---|---|---|---|---|---|
| | | | | Nelson | Parker | Rice |
| | Cash | Assets | Liabilities | 0.40 | 0.30 | 0.30 |
| Balances | $5,000 | $60,000 | $(20,000) | $(20,000) | $(12,000) | $(13,000) |
| Sale of asset and allocation of gain | 16,000 | (12,000) | --- | (1,600) | (1,200) | (1,200) |
| | 21,000 | 48,000 | (20,000) | (21,600) | (13,200) | (14,200) |
| Payment to creditors | (20,000) | --- | 20,000 | --- | --- | --- |
| | 1,000 | 48,000 | 0 | (21,600) | (13,200) | (14,200) |
| Payment to partners (Schedule 1) | (1,000) | --- | --- | 1,000 | --- | |
| | 0 | 48,000 | 0 | (20,600) | (13,200) | (14,200) |
| Sale of assets and allocation of gain | 12,000 | (10,000) | --- | (800) | (600) | (600) |
| | 12,000 | 38,000 | 0 | (21,400) | (13,800) | (14,800) |
| Payment to partners (Schedule 2) | (12,000) | --- | --- | 6,200 | 2,400 | 3,400 |
| | 0 | 38,000 | 0 | (15,200) | (11,400) | (11,400) |
| Sale of assets and allocation of loss | 10,000 | (20,000) | --- | 4,000 | 3,000 | 3,000 |
| | 10,000 | 18,000 | 0 | (11,200) | (8,400) | (8,400) |
| Payment to partners | (10,000) | --- | --- | 4,000 | 3,000 | 3,000 |
| | 0 | 18,000 | 0 | (7,200) | (5,400) | (5,400) |
| Sale of asset and allocation of loss | 2,000 | (18,000) | --- | 6,400 | 4,800 | 4,800 |
| | 2,000 | 0 | 0 | (800) | (600) | (600) |
| Payment to partners | (2,000) | --- | --- | 800 | 600 | 600 |
| | $0 | $0 | $0 | $0 | $0 | $0 |

Schedules to Compute Safe Payments

Schedule 1

| | Nelson | Parker | Rice |
|---|---|---|---|
| Capital Balance | $(21,600) | $(13,200) | $(14,200) |
| Allocation of potential loss ($48,000) | 19,200 | 14,400 | 14,400 |
| | (2,400) | 1,200 | 200 |
| Allocation of deficit balance | 1,400 | (1,200) | (200) |
| Safe payment | $(1,000) | $0 | $0 |

Schedule 2

| | Nelson | Parker | Rice |
|---|---|---|---|
| Capital Balance | $(21,400) | $(13,800) | $(14,800) |
| Allocation of potential loss ($38,000) | 15,200 | 11,400 | 11,400 |
| Safe payment | $(6,200) | $(2,400) | $(3,400) |

**Problem 16-3**

| | | | | Capital & Loan Balances | | |
|---|---|---|---|---|---|---|
| | | Other | | Hann | Murphey | Ryan |
| | Cash | Assets | Liabilities | 0.50 | 0.30 | 0.20 |
| Beginning Balances | $10,000 | $218,000 | $(110,000) | $(50,000) | $(42,000) | $(26,000) |
| 3/15 asset sale | 80,000 | (90,000) | --- | 5,000 | 3,000 | 2,000 |
| | 90,000 | 128,000 | (110,000) | (45,000) | (39,000) | (24,000) |
| 3/16 A/R sale | 26,000 | (30,000) | --- | 2,000 | 1,200 | 800 |
| | 116,000 | 98,000 | (110,000) | (43,000) | (37,800) | (23,200) |
| 3/16 pay creditors | (110,000) | --- | 110,000 | --- | --- | --- |
| | 6,000 | 98,000 | 0 | (43,000) | (37,800) | (23,200) |
| 3/18 cash distribution (Schedule 1) | (5,000) | --- | --- | --- | 4,200 | 800 |
| | 1,000 | 98,000 | 0 | (43,000) | (33,600) | (22,400) |
| 3/19 adjustment to fair value | --- | 3,000 | --- | (1,500) | (900) | (600) |
| | 1,000 | 101,000 | 0 | (44,500) | (34,500) | (23,000) |
| 3/19 withdrawal by Murphey | --- | (13,000) | --- | --- | 13,000 | --- |
| | 1,000 | 88,000 | 0 | (44,500) | (21,500) | (23,000) |
| 3/21 sale – allocate loss | 30,000 | (50,000) | --- | 10,000 | 6,000 | 4,000 |
| | 31,000 | 38,000 | 0 | (34,500) | (15,500) | (19,000) |
| 3/25 assign lease | 12,000 | --- | --- | (6,000) | (3,600) | (2,400) |
| | 43,000 | 38,000 | 0 | (40,500) | (19,100) | (21,400) |
| 3/25 cash distribution (Schedule 2) | (43,000) | --- | --- | 21,500 | 7,700 | 13,800 |
| | 0 | 38,000 | 0 | (19,000) | (11,400) | (7,600) |
| 4/1 adjustment to fair value | --- | (2,000) | --- | 1,000 | 600 | 400 |
| | 0 | 36,000 | 0 | (18,000) | (10,800) | (7,200) |
| 4/1 withdrawal by Hamm | --- | (8,000) | --- | 8,000 | --- | --- |
| | 0 | 28,000 | 0 | (10,000) | (10,800) | (7,200) |
| 4/5 sale and allocate loss | 4,000 | (28,000) | --- | 12,000 | 7,200 | 4,800 |
| | 4,000 | 0 | 0 | 2,000 | (3,600) | (2,400) |
| 4/6 investment by Hamm | 2,000 | --- | --- | (2,000) | --- | --- |
| | 6,000 | 0 | 0 | 0 | (3,600) | (2,400) |
| 4/6 final distribution | (6,000) | --- | --- | --- | 3,600 | 2,400 |
| | $0 | $0 | $0 | $0 | $0 | $0 |

**Problem 16-3 (continued)**

Schedules to Compute Safe Payments

Schedule 1

| | Hann | Murphey | Ryan |
|---|---|---|---|
| | 0.50 | 0.30 | 0.20 |
| Capital balances | $(43,000) | $(37,800) | $(23,200) |
| Allocation of potential loss ($99,000) | 49,500 | 29,700 | 19,800 |
| | 6,500 | (8,100) | (3,400) |
| Allocation of deficit balance | (6,500) | 3,900 | 2,600 |
| Safe cash payment | $0 | $(4,200) | $(800) |

Schedule 2

| | Hann | Murphey | Ryan |
|---|---|---|---|
| Capital balance | $(40,500) | $(19,100) | $(21,400) |
| Allocation of potential loss ($38,000) | 19,000 | 11,400 | 7,600 |
| Safe cash distribution | $(21,500) | $(7,700) | $(13,800) |

**Problem 16-4**

MARY, PAULA, AND RAY
Schedule of Partnership Liquidation

| | | | Other | | Mary | Paula | Ray |
|---|---|---|---|---|---|---|---|
| | | Cash | Assets | Liabilities | 0.40 | 0.30 | 0.30 |
| **Part A** | Balances before realization | $10,000 | $100,000 | $(40,000) | $(50,000) | $(10,000) | $(10,000) |
| | Sale of assets | 20,000 | (100,000) | | 32,000 | 24,000 | 24,000 |
| | | 30,000 | 0 | (40,000) | (18,000) | 14,000 | 14,000 |
| | Allocate Ray's debit balance | | | | 8,000 | 6,000 | (14,000) |
| | | 30,000 | 0 | (40,000) | (10,000) | 20,000 | 0 |
| | Investment by Paula | 20,000 | | | | (20,000) | |
| | | 50,000 | 0 | (40,000) | (10,000) | 0 | 0 |
| | Distribution of cash | (50,000) | | 40,000 | 10,000 | | |
| | | $0 | $0 | $0 | $0 | $0 | $0 |

Mary will receive $10,000.
Paula must invest $20,000.
Ray is personally insolvent and cannot make an investment in the partnership to eliminate the deficit balance.

## Problem 16-4 (continued)

**Part B** Payments to Personal Creditors

| | Personal | Partnership Distribution | Total |
|---|---|---|---|
| Mary | $50,000 | $10,000 | $60,000 |
| Paula | 10,000 | 0 | 10,000 |
| Ray | 30,000 | 0 | 30,000 |

## Problem 16-5

| | | Baker | Strong | Weak |
|---|---|---|---|---|
| **Part A** | Capital and loan balances | $55,000 | $45,000 | $24,000 |
| | Profit and loss ratio | .40 | .40 | .20 |
| | Loss absorption potential | $137,500 | $112,500 | $120,000 |
| | Order of cash distribution | 1 | 3 | 2 |

| | Loss Absorption Potential | | | Cash Distribution | | |
|---|---|---|---|---|---|---|
| | Baker | Strong | Weak | Baker | Strong | Weak |
| Profit and loss rates | .40 | .40 | .20 | .40 | .40 | .20 |
| Loss absorption potential | $137,500 | $112,500 | $120,000 | | | |
| Net capital interest | | | | $55,000 | $45,000 | $24,000 |
| Reduce loss absorption potential of Baker | 17,500 | | | 7,000 | | |
| | 120,000 | 112,500 | 120,000 | 48,000 | 45,000 | 24,000 |
| Reduce loss absorption potential of | | | | | | |
| -Baker | 7,500 | | | 3,000 | | |
| -Weak | | | 7,500 | | | 1,500 |
| | $112,500 | $112,500 | $112,500 | $45,000 | $45,000 | $22,500 |
| Remainder | | | | 0.40 | 0.40 | 0.20 |

| | | | Cash Distribution | | |
|---|---|---|---|---|---|
| | | Creditors | Baker | Strong | Weak |
| First | $17,000 | 100% | | | |
| Next | 7,000 | | 100% | | |
| Next | 4,500 | | 67% | | 33% |
| Remainder | | | 40% | 40% | 20% |

**Problem 16-5 (continued)**

| | | Cash Distribution | | | |
|---|---|---|---|---|---|
| | Total | Creditors | Baker | Strong | Weak |
| To Creditors | $17,000 | $17,000 | | | |
| To Baker | 7,000 | | $7,000 | | |
| To Baker and Weak | 4,500 | | 3,000 | | $1,500 |
| Remainder -- | | | | | |
| Profit and Loss Ratio | 77,500 | | 31,000 | $31,000 | 15,500 |
| | $106,000 | $17,000 | $41,000 | $31,000 | $17,000 |

**Part B**

| | | Accounts | | Plant and | Accounts | Baker | Strong | Weak |
|---|---|---|---|---|---|---|---|---|
| July | Cash | Receivable | Inventory | Equipment | Payable | 0.40 | 0.40 | 0.20 |
| Account balances | $6,000 | $22,000 | $14,000 | $99,000 | $(17,000) | $(55,000) | $(45,000) | $(24,000) |
| Collection of accounts receivable | 16,500 | (22,000) | | | | 2,200 | 2,200 | 1,100 |
| Sale of inventory | 10,000 | | (14,000) | | | 1,600 | 1,600 | 800 |
| Paid liquidation expenses | (1,000) | | | | | 400 | 400 | 200 |
| Cash distribution (Schedule 1) | (23,500) | | | | 17,000 | 6,500 | | |
| Account balances (end of July) | 8,000 | 0 | 0 | 99,000 | 0 | (44,300) | (40,800) | (21,900) |
| | | | | | | | | |
| August | | | | | | | | |
| Paid liquidation expenses | (1,500) | | | | | 600 | 600 | 300 |
| Gain on equipment | | | | 6,000 | | (2,400) | (2,400) | (1,200) |
| Withdrawal on equipment | | | | (10,000) | | | | 10,000 |
| Cash distribution (Schedule 2) | (4,000) | | | | | 3,750 | 250 | |
| Account balances (end of August) | 2,500 | 0 | 0 | 95,000 | 0 | (42,350) | (42,350) | (12,800) |
| | | | | | | | | |
| September | | | | | | | | |
| Sale of equipment | 75,000 | | | (95,000) | | 8,000 | 8,000 | 4,000 |
| Paid liquidation expense | (1,000) | | | | | 400 | 400 | 200 |
| Balances | 76,500 | 0 | 0 | 0 | 0 | (33,950) | (33,950) | (8,600) |
| Cash distribution | (76,500) | 0 | 0 | 0 | 0 | 33,950 | 33,950 | 8,600 |
| | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 |

**Problem 16-5 (continued)**

Schedule 1

| | Total | Creditors | 0.4<br>Baker | 0.4<br>Strong | 0.2<br>Weak |
|---|---|---|---|---|---|
| First $17,000 | $17,000 | $17,000 | | | |
| Up to $7,000 | 6,500 | | $6,500 | | |
| | $23,500 | $17,000 | $6,500 | | |

Schedule 2

| | | Baker | Strong | Weak |
|---|---|---|---|---|
| Capital balances | | $(46,100) | $(42,600) | $(12,800) |
| Potential loss of $95,000 plus | | | | |
| Cash retained | 97,500 × 0.4 = | 39,000 | | |
| | 97,500 × 0.4 = | | 39,000 | |
| | 97,500 × 0.2 = | | | 19,500 |
| | | (7,100) | (3,600) | 6,700 |
| Allocate Weak's potential deficit | | | | (6,700) |
| 1/2 | | 3,350 | | |
| 1/2 | | | 3,350 | |
| | | $(3,750) | $(250) | $0 |

**Problem 16-6**

**Part A**

MALONE, PATTON, AND SPENCER
Statement of Changes in Partners' Capital
For the Year Ended December 31, 2008

| | Malone | Patton | Spencer | Total |
|---|---|---|---|---|
| Capital balances, 1/1/2008 | $ 0 | $ 0 | $ 0 | $ 0 |
| Add: Investments | 140,000 | 160,000 | 100,000 | 400,000 |
| Net income allocation* | 21,000 | 24,000 | 15,000 | 60,000 |
| Totals | 161,000 | 184,000 | 115,000 | 460,000 |
| Less: Withdrawals | 30,000 | 0 | 0 | 30,000 |
| Capital balances, 12/31/2008 | $131,000 | $184,000 | $115,000 | $430,000 |

| | | |
|---|---|---|
| * Malone | $60,000 × ($140,000/$400,000) | $21,000 |
| Patton | $60,000 × ($160,000/$400,000) | 24,000 |
| Spencer | $60,000 × ($100,000/$400,000) | 15,000 |
| Total | | $60,000 |

**Part B**

| | Debit | Credit |
|---|---|---|
| Malone, Capital | 30,000 | |
| Malone, Drawing | | 30,000 |
| | | |
| Income Summary | 60,000 | |
| Malone, Capital | | 21,000 |
| Patton, Capital | | 24,000 |
| Spencer, Capital | | 15,000 |

**Problem 16-6 (continued)**

**Part C** – On next page

| | | | |
|---|---|---|---|
| **Part D** | Cash | 243,000 | |
| | Malone, Capital | 36,400 | |
| | Patton, Capital | 41,600 | |
| | Spencer, Capital | 26,000 | |
| | Accounts Receivable | | 129,000 |
| | Inventory | | 188,000 |
| | Furniture and Fixtures | | 30,000 |
| | | | |
| | Accounts Payable | 74,000 | |
| | Cash | | 74,000 |
| | | | |
| | Patton, Capital | 120,000 | |
| | Mortgage Payable | 145,000 | |
| | Land | | 85,000 |
| | Building | | 180,000 |
| | | | |
| | Malone, Capital | 94,600 | |
| | Patton, Capital | 22,400 | |
| | Spencer, Capital | 89,000 | |
| | Cash | | 206,000 |

**Problem 16-6 (continued)**

**Part C**

MALONE, PATTON, AND SPENCER
Schedule of Partnership Liquidation
January 2, 2009

| | | | | Capital Balances | | |
|---|---|---|---|---|---|---|
| Explanation | | | | Malone | Patton | Spencer |
| | Cash | Other Assets | Liabilities | 35%_ | 40%_ | 25%_ |
| Balances before realization | $37,000 | $612,000 | $(219,000) | $(131,000) | $(184,000) | $(115,000) |
| Sales of noncash assets | 243,000 | (347,000) | | 36,400 | 41,600 | 26,000 |
| Balances | 280,000 | 265,000 | (219,000) | (94,600) | (142,400) | (89,000) |
| Payment of accounts payable | (74,000) | | 74,000 | | | |
| Balances | 206,000 | 265,000 | (145,000) | (94,600) | (142,400) | (89,000) |
| Distribution of land, bldg., and assumption of mortgage | | (265,000) | 145,000 | | 120,000 | |
| Balances | 206,000 | 0 | 0 | (94,600) | (22,400) | (89,000) |
| Distribution to partners | (206,000) | | | 94,600 | 22,400 | 89,000 |
| Balances | $0 | $0 | $0 | $0 | $0 | $0 |

| | Sales Price | Book Value |
|---|---|---|
| Accounts Receivable | $ 92,000 | $129,000 |
| Inventory | 141,000 | 188,000 |
| Furniture/Fixtures | 10,000 | 30,000 |
| Total | $243,000 | $347,000 |

**Problem 16-7**

| | | | |
|---|---|---|---|
| **Part A** | Valuation Adjustment | 2,700 | |
| | Accumulated Depreciation | 12,600 | |
| | Office Equipment | | 14,200 |
| | Allowance for Uncollectibles | | 900 |
| | Jan, Loan | | 200 |
| | | | |
| | Jan, Loan | 6,600 | |
| | Jan, Capital | | 6,600 |
| | | | |
| | Jan, Capital | 1,350 | |
| | Sue, Capital | 1,350 | |
| | Valuation Adjustment | | 2,700 |
| | | | |
| **Part B** | Jan, Capital ($29,400 + $6,600 - $1,350) | 34,650 | |
| | Sue, Capital ($28,000 – $1,350) | 26,650 | |
| | Capital Stock (400 × $100) | | 40,000 |
| | Additional Paid-in Capital | | 21,300 |

Proof

| | |
|---|---|
| Cash | $15,000 |
| Accounts receivable | 32,400 |
| Allowance for uncollectibles | (2,900) |
| Prepaid insurance | 800 |
| Office equipment | 16,000 |
| Total stockholders' equity | $61,300 |

## Problem 16-8

| | | | | |
|---|---|---|---|---|
| **Part A** | 1. | Starnes, Capital | 125,000 | |
| | | Cash | | 75,000 |
| | | Partners 1-9, Capital ($50,000 × 90/95) | | 47,368 |
| | | Partner 10, Capital ($50,000 × 5/95) | | 2,632 |
| | | Cash | 150,000 | |
| | | Norwood, Capital ($2,500,000 × 5%) | | 125,000 |
| | | Partners 1-9, Capital ($25,000 × 90/95) | | 23,684 |
| | | Partner 10, Capital ($25,000 × 5/95) | | 1,316 |

2. Because Alan is now a partner in the partnership, it is more difficult to determine the exact amount of his compensation because he will be taxed on his "share of partnership earnings" reported to him on his Schedule K-1 from BSM. While this share of earnings will most likely bear a relationship to the draws taken by Alan, it will undoubtedly be more or less than $216,000 ($18,000 × 12). Alan must also consider the following additional expenses which correspond to his increased compensation and status as a partner:

   (a) Increased individual income tax to correspond to his increased earnings.

   (b) Self-employment tax. As an employee this was withheld from wages at a rate of 7.65% (2002 rate; with a ceilings of $84.900 for 6.2% of the tax). Now that Alan is a partner, he must pay these taxes himself at a rate of 15.3% with the same ceiling, and with an offsetting deduction for 50% of the self-employment tax. This additional tax must be remitted with Alan's individual income tax return.

   (c) Alan has invested $150,000 in the partnership. If he borrowed the funds to join, he must make interest and principal payments on the debt. The amount of required annual payments depends of course on the interest rate and term of the loan. If he used his own funds (say from a mutual fund earning 10%) for the investment, he has traded the earning power of the funds for earnings from the partnership. He has given up $15,000 in income from the former investment.

3. Alan should be concerned about the true value of a 5% interest in the partnership since Mr. Starns was paid $75,000 for his 5% interest while within the same time frame, Alan is expected to pay $150,000 for an equivalent interest. There may be mitigating circumstances (e.g. Mr. Starns contributes little to the firm, Alan lacks sufficient ability to bring in new clients), but Alan has a clear signal of a discrepancy which should prompt him to ask questions before investing in the partnership.

**Problem 16-8 (continued)**

**Part B** 1. This matter is sometimes addressed in employment contracts. Some professional firms require employees to agree not to actively recruit clients upon their departure from the firm. Barring such a specific agreement or firm precedent (and profession-related guidelines), Alan and Mary must determine the basis on which they can rely to call a BSM client "their client". This may involve such issues as whether Alan or Mary were involved in bringing the client to BSM originally, or it may involve the extent to which the BSM clients were served by the firm as opposed to exclusively by Alan or Mary. Further, if the client's interests are better served by BSM as a larger firm or by Alan and Mary in a smaller firm, that should enter the decision made by the departing employees.

2. It may be difficult to block actions by Alan and Mary if a written agreement is not in existence. Clearly, the BSM partners can enlighten clients to any benefits of remaining a BSM client.

**Part C** 1.

| | | |
|---|---|---|
| Current Net income | 25,000 | |
| Partners 1-9, Capital ($25,000 × 90%) | | 22,500 |
| Partners 10-11, Capital ($25,000 × 10%) | | 2,500 |
| | | |
| Cash | 8,000,000 | |
| Accounts Receivable | | 8,000,000 |
| | | |
| Liabilities - Outside | 7,490,000 | |
| Starns, Loan | 10,000 | |
| Cash | | 7,500,000 |
| | | |
| Partners 1-9, Capital ($3,750 × 90/95) | 3,553 | |
| Partner 10, Capital ($3,750 × 5/95) | 197 | |
| Starns, Capital ($125,000 - $130,000 + $1,250 = $3,750) | | 3,750 |
| | | |
| Partners 1-9, Capital ($2,395,000 × 90/95) | 2,268,947 | |
| Partner 10, Capital ($2,395,000 × 5/95) | 126,053 | |
| Cash | | 2,395,000 |
| ($2,025,000 - $130,000 + $8,000,000 - $7,500,000 = $2,395,000) | | |

2. Yes. The debit balance in the Starns capital account is considered a partnership asset. Judicial precedent exists to allow offset of the liability by the debit capital account balance. The net payment to the partner with the debit capital account leaves both the partnership and partner's obligations fully paid without "endangering" the capital of other partners.

# CHAPTER 17

**ANSWERS TO QUESTIONS**

1. The performance of services by nonbusiness organizations is based on social need rather than on the profit motive and there is no conscious or deliberate effort by such organizations to derive a profit from their operations.

   Nonbusiness organizations are not operated for the financial benefit of a specific individual or group of individuals and those who contribute resources to nonbusiness organizations do not necessarily benefit proportionately or at all from the services provided by such organizations.
   There is no proprietary interest in nonbusiness organizations and the equity interest in the net assets of such organizations cannot be sold or exchanged.

2. A fund is a fiscal and accounting entity with a self-balancing set of accounts recording cash and other financial resources together with all related liabilities and residual equities or balances, and changes therein, which are segregated for the purpose of carrying on specific activities or attaining certain objectives in accordance with special regulations, restrictions, or limitations.

3. At any particular point in time the unreserved fund balance of an expendable fund entity represents the balance of financial resources that are available for expenditure for the specified purposes or objectives for which the fund was created.

4. Major classifications of increases in expendable fund resources are revenues, debt issue proceeds and transfers from other funds. Decreases in expendable fund resources are classified as expenditures or as transfers to other funds.

5. In accounting for expendable funds entities revenue is recognized when (1) it can be objectively measured and (2) it is available to finance expenditures of the current period. In contrast, in accounting for profit-oriented enterprises revenue is ordinarily not recognized until (1) it can be objectively measured and (2) the earnings process is complete or substantially complete.

6. Municipality:

   Functions – Public Safety
   Activity – Vice Control
   Organization Unit – Police Department
   Object – Travel

   Functional and activity classifications are recommended for external financial reporting.

7. An appropriation is an authorization enacted by a legislative body or granted by a governing board to make expenditures for a specified purpose.

   An encumbrance is an obligation in the form of a purchase order or other commitment that reduces appropriation authority and is formally recorded in the accounting records.

An expenditure is a decrease in the net financial resources of a fund entity incurred to carry out the activities or objectives of the fund.

A disbursement represents the payment of cash for an expenditure. Such payments may precede the expenditure (an advance), coincide with the expenditure (a direct payment), or follow the expenditure (the payment of a liability).

8. An expense is associated with accounting for profit oriented enterprises or proprietary funds and may be defined as an expired cost consumed in the production of revenue. An expenditure is associated with accounting for expendable funds entities and is a decrease in the net financial resources of a fund entity incurred to carry out the activities or objectives of the fund.

9. In accounting for commercial activities, estimated uncollectible receivables are treated as an expense in the determination of net income. In accounting for expendable fund entities, estimated uncollectible taxes are treated as a direct reduction of revenue in the determination of the inflow of financial resources. The estimate of uncollectible taxes is treated as a direct reduction of revenue rather than as an expenditure since the failure to collect taxes is not an outflow of financial resources but rather is a reduction in the inflow of financial resources. Since there is no appropriation for the amount of estimated uncollectible taxes, it is properly accounted for as a reduction of revenue rather than as an expenditure.

10. Since the amount of an appropriation cannot be legally exceeded, the placing of purchase orders and the signing of contracts are critical events in controlling the expenditures of expendable fund entities. The financial resources of a fund are said to be encumbered when a transaction is entered into that requires performance on the part of another party before the nonprofit entity becomes liable to perform (expend financial resources) its part of the transaction. Encumbrance accounting formally records the reduction of appropriation authority resulting from purchase orders and similar commitments and thus serves to provide an accounting safeguard against the expenditure of financial resources in excess of appropriations.

    There would be no reason to prevent a commercial enterprise from using encumbrance accounting so long as the balance in reserve for encumbrances was offset by the balance in the encumbrances account for reporting purposes. However, the compelling need for encumbrance accounting arising from the penalties provided by law for government administrators who expend funds in excess of those appropriated is not a factor in the operation and administration of commercial enterprises.

11. The balance in the Reserve for Encumbrances account is not a liability. Rather it represents the estimated amount of net financial resources of the fund entity that will be needed in the subsequent year to liquidate obligations entered into under the authority of the current year’s appropriation. As such it represents a restriction on the availability of fund resources for future appropriation rather than a liability and is properly reported in the financial statements as a portion (reserved) of the total fund balance.

12. There should be columns for the following balances: Appropriations, Encumbrances, Expenditures, Total Encumbrances and Expenditures, and Unencumbered Balance.

13. Assets acquired with the resources of an expendable fund entity do not represent expendable financial resources but rather reflect the purposes for which the financial resources have been used. Thus, they are recorded and reported as expenditures of, rather than as assets of, the expendable

fund entity. Depreciation is not accounted for in the records of an expendable fund entity for the same reasons that fixed assets are excluded from the records of such entities. Expenditures, not expenses, are measured in fund accounting.

Acquisitions of fixed assets require the use of financial resources and are accounted for as expenditures. Depreciation of such assets is not a use of the financial resources of an expendable fund entity and thus is not properly recorded in the accounts of such entities. Inclusion of depreciation expense in the operating statement of an expendable fund entity would confuse two fundamentally different measurements - expenditures and expenses.

14. The adoption of a budget for a general fund is a legislative process that is highly formalized and which results in the formal recording of the budgeted amounts (appropriations) within the framework of the double entry accounting system. The adoption of a budget by a commercial unit is also a planning and control device, but the adoption process and the subsequent application of the budget is seldom as formalized or as rigid as it is in governmental accounting.

15. There are two principal financial statements recommended for expendable fund entities: (1) a Comparative Balance Sheet and (2) a Comparative Statement of Revenue, Expenditures and Other Changes in Fund Balance. These two statements may be accompanied by schedules that present detailed financial data which support and amplify the information summarized in the formal financial statements. Supporting schedules may also be used to present budgetary data or to demonstrate compliance with legal provisions.

16. In order to determine the total cost of performing a particular function or activity, the total expenditures for such functions or activities would have to be adjusted by reducing the amount of capital expenditures included therein and by adding depreciation expenses relating to the dissipation of services embodied in capital assets utilized to support the function or activity. Since capital acquisitions are not distinguished from other expenditures in the records of expendable fund entities and since depreciation is not calculated within the framework of the records of expendable fund entities there may be no reasonable basis for determining the amount or classification of these adjustments.

**Business Ethics**

Business ethics solutions are merely suggestions of points to address. The objective is to raise the students' awareness of the topics, and to invite discussion. In most cases, there is clear room for disagreement or conflicting viewpoints.

Issues to be considered: If pricing is a function of cost, then businesses charging excessive prices can be viewed as following excessive, even obscene pricing strategies. Also, there are others visiting the city who are not attending the football game and who might adversely affected (for example, individuals with medical emergencies, ill family members, etc.). On the other hand, the goal of business is to make a profit and take advantage of market opportunities. As long as people are aware of the practices, many might argue that the pricing strategy is appropriate.

**Answers to Analyzing Financial Statements**

**AFS 17-1**

1. Assets and liabilities are not classified by current and non-current, because government funds present current financial resources. In addition, the typical for-profit balance sheet equation is assets equal liabilities plus equity. In the non-profit statement, Assets equal liabilities plus fund balances.

2. The largest asset is Investments. This may seem surprising, but in the general fund capital assets are not recorded.
3. The reserve for encumbrances represents the portion of the funds set aside to pay for goods not yet received and services not yet contracted for prior to year-end.

**AFS 17-2**

1. The statement of Revenues, Expenditures, and Changes in Fund Balances focuses on the inflows and outflows of current financial resources and come into and leave from the government. When a capital asset is purchased, the entire cost is recognized in the government's fund (whereas on a for-profit statement the cost is capitalized and depreciation over its useful life). Similarly, when a government repays debt, both the interest and principal payments are reflected on the statement. On a for-profit income statement, only interest is recognized as an expense.
2. The largest expenditure in the general fund is for police.
3. The largest source of revenue is from property taxes.
4. When the general fund revenues, expenditures, and other financing sources are added together, the general fund increased by $39,777. Of this amount, $10,851 was transferred in from other parts of the government.

## ANSWERS TO EXERCISES

### Exercise 17-1

| | | | |
|---|---|---|---|
| 1. | Cash | 15,000 | |
| | Revenue | | 15,000 |
| 2. | Cash | 100,000 | |
| | Revenue | | 100,000 |
| 3. | Encumbrances | 130,000 | |
| | Reserve for Encumbrances | | 130,000 |
| 4. | Cash | 500,000 | |
| | Bond Issue Proceeds | | 500,000 |

## Exercise 17–1 (continued)

| | | | |
|---|---|---|---|
| 5. | Cash | 250,000 | |
| | Revenue | | 250,000 |
| | | | |
| 6. | Expenditures | 140,000 | |
| | Vouchers Payable | | 140,000 |
| | | | |
| | Reserve for Encumbrances | 130,000 | |
| | Encumbrances | | 130,000 |

## Exercise 17–2

| | | | |
|---|---|---|---|
| 1. | Estimated Revenues | 4,000,000 | |
| | Appropriations | | 3,800,000 |
| | Unreserved Fund Balance | | 200,000 |
| | | | |
| 2. | Property Tax Receivable | 3,000,000 | |
| | Estimated Uncollectible Property Tax | | 120,000 |
| | Revenue | | 2,880,000 |
| | | | |
| 3. | Due From State | 500,000 | |
| | Revenue | | 500,000 |
| | | | |
| 4. | Encumbrances | 250,000 | |
| | Reserve for Encumbrances | | 250,000 |
| | | | |
| 5. | Expenditures | 250,000 | |
| | Vouchers Payable | | 250,000 |
| | | | |
| | Reserve for Encumbrances | 250,000 | |
| | Encumbrances | | 250,000 |
| | | | |
| | Vouchers Payable | 250,000 | |
| | Cash | | 250,000 |
| | | | |
| 6. | Expenditures | 36,000 | |
| | Cash | | 36,000 |
| | | | |
| 7. | Cash | 2,050,000 | |
| | Property Tax Receivable | | 2,050,000 |

**Exercise 17–3**

| | | | |
|---|---|---|---|
| 1. | Estimated Revenues | 1,950,000 | |
| | Appropriations | | 1,800,000 |
| | Unreserved Fund Balance | | 150,000 |
| 2. | Property Tax Receivable | 1,150,000 | |
| | Estimated Uncollectible Property Tax | | 35,000 |
| | Revenue | | 1,115,000 |
| 3. | Cash | 1,080,000 | |
| | Property Tax Receivable | | 1,080,000 |
| 4. | Expenditures | 200,000 | |
| | Cash | | 200,000 |
| | Cash | 24,000 | |
| | Revenue | | 24,000 |
| 5. | Encumbrances | 96,000 | |
| | Reserve for Encumbrances | | 96,000 |
| 6. | Expenditures | 8,000 | |
| | Contracts Payable | | 8,000 |
| | Reserve for Encumbrances | 8,000 | |
| | Encumbrances | | 8,000 |
| 7. | Contracts Payable | 8,000 | |
| | Cash | | 8,000 |

## Exercise 17–4

| | | | |
|---|---|---|---|
| 1. | Revenue | 3,210,000 | |
| | Estimated Revenue | | 3,110,000 |
| | Unreserved Fund Balance | | 100,000 |
| 2. | Appropriations | 2,700,000 | |
| | Expenditures | | 1,960,000 |
| | Encumbrances | | 734,000 |
| | Unreserved Fund Balance | | 6,000 |
| 3. | Reserve for Encumbrances – 2008 | 50,000 | |
| | Unreserved Fund Balance | 5,000 | |
| | Expenditures – 2008 | | 55,000 |
| 4. | Transfers From Other Funds | 40,000 | |
| | Unreserved Fund Balance | 50,000 | |
| | Transfers to Other Funds | | 90,000 |

## Exercise 17–5

| | | | |
|---|---|---|---|
| 1. | Revenue | 1,675,000 | |
| | Unreserved Fund Balance | 15,000 | |
| | Estimated Revenue | | 1,690,000 |
| 2. | Appropriations | 1,550,000 | |
| | Expenditures | | 1,310,000 |
| | Encumbrances | | 165,000 |
| | Unreserved Fund Balance | | 75,000 |
| 3. | Reserve for Encumbrances – 2007 | 35,000 | |
| | Expenditures – 2007 | | 32,000 |
| | Unreserved Fund Balance | | 3,000 |

## Exercise 17–6

| | | | |
|---|---|---|---|
| **Part A** | Inventory | 65,000 | |
| | Reserve for Supplies Inventory | | 65,000 |

**Part B** $350,000

## Exercise 17–7

| | | | |
|---|---|---|---|
| **Part A** | Expenditures | 225,000 | |
| | Cash | | 225,000 |
| | Inventory | 5,000 | |
| | Reserve for Supplies Inventory | | 5,000 |
| **Part B** | Expenditures | 225,000 | |
| | Cash | | 225,000 |
| | Inventory | 5,000 | |
| | Expenditures | | 5,000 |
| | Unreserved Fund Balance | 5,000 | |
| | Reserve for Supplies Inventory | | 5,000 |

**Part C**

| Unreserved Fund Balance | Purchases | Consumption |
|---|---|---|
| 1/1/ Balance | $555,000 | $555,000 |
| Purchase of Supplies | (225,000) | |
| Use of Supplies | | (220,000) |
| Setting up of Reserve | | (5,000) |
| 12/31/ Balance | $330,000 | $330,000 |

## Exercise 17–8

| | | | |
|---|---|---|---|
| 1. | Estimated Revenue | 1,900,000 | |
| | Appropriations | | 1,850,000 |
| | Unreserved Fund Balance | | 50,000 |
| 2. | Property Tax Receivable | 955,000 | |
| | Estimated Uncollectible Property Taxes (5%) | | 47,750 |
| | Revenue | | 907,250 |
| 3. | Encumbrances | 16,400 | |
| | Reserve for Encumbrances | | 16,400 |
| 4. | Encumbrances | 140,000 | |
| | Reserve for Encumbrances | | 140,000 |
| 5. | Expenditures | 90,000 | |
| | Cash | | 90,000 |

**Exercise 17–8 (continued)**

| | | | |
|---|---|---|---|
| 6. | Due from State | 375,000 | |
| | Revenue | | 375,000 |
| | | | |
| 7. | Expenditures | 135,000 | |
| | Vouchers Payable | | 135,000 |
| | | | |
| | Reserve for Encumbrances | 137,000 | |
| | Encumbrances | | 137,000 |
| | | | |
| 8. | Expenditures | 16,200 | |
| | Vouchers Payable | | 16,200 |
| | | | |
| | Reserve for Encumbrances | 16,400 | |
| | Encumbrances | | 16,400 |
| | | | |
| 9. | Cash | 450,000 | |
| | Property Tax Receivable | | 450,000 |
| | | | |
| 10. | Vouchers Payable ($135,000 + $16,200) | 151,200 | |
| | Cash | | 151,200 |
| | | | |
| 11. | Reserve for Encumbrances | 650 | |
| | Encumbrances | | 650 |

**Exercise 17–9**

| | | | |
|---|---|---|---|
| 1. | Estimated Revenue | 565,000 | |
| | Unreserved Fund Balance | 15,000 | |
| | Appropriations | | 580,000 |
| | To record the approved operating budget. | | |
| | | | |
| 2. | Property Tax Receivable ($60,000,000/$100) | 600,000 | |
| | Estimated Uncollectible Taxes (3%) | | 18,000 |
| | Revenue | | 582,000 |
| | To record tax levy | | |
| | | | |
| 3. | Encumbrances | 4,200 | |
| | Reserve for Encumbrances | | 4,200 |
| | To record purchase order for motorcycle | | |
| | | | |
| 4. | Expenditures ($4,200 + $425) | 4,625 | |
| | Vouchers Payable | | 4,625 |
| | | | |
| | Reserve for Encumbrances | 4,200 | |
| | Encumbrances | | 4,200 |
| | To record liability for motorcycle received and to remove the encumbrance | | |

## Exercise 17–9 (continued)

| | | | |
|---|---|---|---|
| 5. | Expenditures | 20,000 | |
| | Cash | | 20,000 |
| | To record payment of payroll (an unencumbered expenditure). | | |
| 6. | Cash | 8,225 | |
| | Revenue | | 8,225 |
| | To record receipt of proceeds from sale of equipment | | |
| 7. | Cash | 540,000 | |
| | Property Tax Receivable | | 540,000 |
| | To record property tax receipts | | |

## Exercise 17–10

1. d 2. a 3. d 4. b 5. d 6. c 7. c

## ANSWERS TO PROBLEMS

### Problem 17–1

| | | | | |
|---|---|---|---|---|
| **Part A** | 1. | Estimated Revenue | 1,560,000 | |
| | | Appropriations | | 1,400,000 |
| | | Unreserved Fund Balance | | 160,000 |
| | | Due from Water Fund | 50,000 | |
| | | Transfer from Water Fund | | 50,000 |
| | | Transfer to Debt Service Fund | 80,000 | |
| | | Due to Debt Service Fund | | 80,000 |
| | 2. | Property Tax Receivable ($11,000,000 × .10) | 1,100,000 | |
| | | Revenue | | 1,078,000 |
| | | Allowance for Uncollectible Taxes (2%) | | 22,000 |
| | 3. | Encumbrances | 1,150,000 | |
| | | Reserve for Encumbrances | | 1,150,000 |
| | 4. | Expenditures – 2007 | 29,000 | |
| | | Vouchers Payable | | 29,000 |
| | 5. | Due to Debt Service Fund | 80,000 | |
| | | Cash | | 80,000 |
| | 6. | Expenditures | 1,155,000 | |
| | | Vouchers Payable | | 1,155,000 |
| | | Reserve for Encumbrances | 1,150,000 | |
| | | Encumbrances | | 1,150,000 |
| | 7. | Cash | 50,000 | |
| | | Due from Water Fund | | 50,000 |
| | 8. | Cash | 1,050,000 | |
| | | Property Tax Receivable | | 1,050,000 |
| | 9. | Allowance for Uncollectible Taxes | 17,000 | |
| | | Property Tax Receivable | | 17,000 |
| | 10. | Vouchers Payable ($29,000 + $1,155,000) | 1,184,000 | |
| | | Cash | | 1,184,000 |
| | 11. | Cash | 455,000 | |
| | | Revenue | | 455,000 |
| | 12. | Encumbrances (2 x $120,000) | 240,000 | |
| | | Reserve for Encumbrances | | 240,000 |

**Problem 17-1 (continued)**

**Part B**

### CITY OF BEDFORD
### General Fund
### Preclosing Trial Balance
### December 31, 2008

| | Debit | Credit |
|---|---|---|
| Cash | $391,000 | |
| Property Tax Receivable | 108,000 | |
| Encumbrances | 240,000 | |
| Estimated Revenue | 1,560,000 | |
| Transfer to Debt Service Fund | 80,000 | |
| Expenditures – 2007 | 29,000 | |
| Expenditures | 1,155,000 | |
| Allowance for Uncollectible Taxes | | $40,000 |
| Unreserved Fund Balance | | 270,000 |
| Reserve for Encumbrances – 2007 | | 30,000 |
| Reserve for Encumbrances | | 240,000 |
| Revenue | | 1,533,000 |
| Appropriations | | 1,400,000 |
| Transfer from Water Fund | | 50,000 |
| Total | $3,563,000 | $3,563,000 |

**Part C** Closing Entries

| | | | |
|---|---|---|---|
| 1. | Revenue | 1,533,000 | |
| | Unreserved Fund Balance | 27,000 | |
| | Estimated Revenue | | 1,560,000 |
| 2. | Appropriations | 1,400,000 | |
| | Expenditures | | 1,155,000 |
| | Encumbrances | | 240,000 |
| | Unreserved Fund Balance | | 5,000 |
| 3. | Transfer from Water Fund | 50,000 | |
| | Unreserved Fund Balance | 30,000 | |
| | Transfer to Debt Service Fund | | 80,000 |
| 4. | Reserve for Encumbrances - 2007 | 30,000 | |
| | Expenditures - 2007 | | 29,000 |
| | Unreserved Fund Balance | | 1,000 |

## Problem 17-1 (continued)

**Part D**

### CITY OF BEDFORD
### General Fund
### Postclosing Trial Balance
### December 31, 2008

| | Debit | Credit |
|---|---|---|
| Cash | $ 391,000 | |
| Property Tax Receivable | 108,000 | |
| Allowance for Uncollectible Taxes | | $ 40,000 |
| Unreserved Fund Balance ($270,000 - $27,000 + $5,000 - $30,000 + $1,000) | | 219,000 |
| Reserve for Encumbrances | | 240,000 |
| Total | $ 499,000 | $ 499,000 |

## Problem 17–2

**Part A**

| | |
|---|---|
| Unreserved Fund Balance per Trial Balance | $24,000 |
| Add Appropriations | 672,000 |
| Deduct Estimated Revenue | (630,000) |
| Unreserved Fund Balance on December 31, 2008 | $66,000 |

| | |
|---|---|
| Unreserved Fund Balance on December 31, 2008 (above) | $66,000 |
| Reserve for Encumbrances - December 31, 2008 | 42,000 |
| Reserve for Supplies Inventory | 72,000 |
| Total Fund Balance - 12/31/2008 | $180,000 |

**Part B** Adjusting and Closing Entries

| | | |
|---|---|---|
| Revenue | 696,000 | |
| Estimated Revenue | | 630,000 |
| Unreserved Fund Balance | | 66,000 |
| | | |
| Reserve for Supplies Inventory ($72,000 - $60,000) | 12,000 | |
| Supplies Inventory | | 12,000 |
| | | |
| Unreserved Fund Balance | 1,000 | |
| Reserve for Encumbrances | 42,000 | |
| Expenditures - 2008 | | 43,000 |
| | | |
| Appropriations | 672,000 | |
| Expenditures | | 468,000 |
| Encumbrances | | 120,000 |
| Unreserved Fund Balance | | 84,000 |

**Part C**

| | |
|---|---|
| Unreserved Fund Balance per Trial Balance | $ 24,000 |
| Closing Entries ($66,000 - $1,000 + $84,000) | 149,000 |
| Unreserved Fund Balance 12/31/2009 | 173,000 |
| Reserve for Encumbrances | 120,000 |
| Reserve for Supplies Inventory | 60,000 |
| Fund Balance - 12/31/2009 | $353,000 |

**Problem 17–3**

**Part A** **Closing Entries**

| | | | |
|---|---|---|---|
| 1. | Unreserved Fund Balance | 64,000 | |
| | Revenue | 3,656,000 | |
| | Estimated Revenue | | 3,720,000 |
| | | | |
| 2. | Reserve for Encumbrances - 2008 | 310,000 | |
| | Expenditures - 2008 | | 296,000 |
| | Unreserved Fund Balance | | 14,000 |
| | | | |
| 3. | Appropriations | 3,488,000 | |
| | Expenditures | | 3,020,000 |
| | Encumbrances | | 382,000 |
| | Unreserved Fund Balance | | 86,000 |
| | | | |
| 4. | Transfers from Other Funds | 300,000 | |
| | Unreserved Fund Balance | 220,000 | |
| | Transfers to Other Funds | | 520,000 |

**Part B** Budget entry on January 1, 2009

| | | |
|---|---|---|
| Estimated Revenues | 3,720,000 | |
| Appropriations | | 3,488,000 |
| Unreserved Fund Balance | | 232,000 |

| | |
|---|---|
| Unreserved fund balance per 12/31/2009 preclosing trial balance | $ 422,000 |
| Less credit to unreserved fund balance on 1/1/2009 from budget entry | 232,000 |
| Unreserved fund balance on 12/31/2008 | 190,000 |
| Reserve for encumbrances 12/31/2008 | 310,000 |
| Total fund balance per balance sheet 12/31/2008 | $ 500,000 |

| | |
|---|---|
| Unreserved fund balance per 12/31/2009 pre-closing trial balance | $422,000 |
| Closing entries ($14,000 + $86,000 - $64,000 - $220,000) | (184,000) |
| Unreserved fund balance 12/31/2009 | 238,000 |
| Reserve for encumbrances 12/31/2009 | 382,000 |
| Total fund balance per balance sheet 12/31/2009 | $ 620,000 |

**Part C**

| | | |
|---|---|---|
| Total fund balance 12/31/2008 | | $ 500,000 |
| Add inflows of financial resources | $3,656,000 | |
| Revenues | 300,000 | 3,956,000 |
| Transfers from other funds | | |
| | | |
| Deduct outflows of financial resources | | |
| Expenditures made this year against prior year's appropriation authority | $296,000 | |
| Expenditures made this year against current year's appropriation authority | 3,020,000 | |
| Transfers to other funds | 520,000 | (3,836,000) |
| Total fund balance 12/31/2009 | | $ 620,000 |

## Problem 17–4

**Part A** Journal Entries

| | | | |
|---|---|---|---|
| 1. | Estimated Revenue | 1,600,000 | |
| | Appropriations | | 1,530,000 |
| | Unreserved Fund Balance | | 70,000 |
| | | | |
| | Due from Trust Fund | 50,000 | |
| | Transfers from Other Funds | | 50,000 |
| | | | |
| | Transfers to Other Funds | 80,000 | |
| | Due to Debt Service Fund | | 80,000 |
| | | | |
| 2. | Property Tax Receivable | 1,500,000 | |
| | Estimated Uncollectible Taxes | | 30,000 |
| | Revenue | | 1,470,000 |
| | | | |
| 3. | Encumbrances | 1,400,000 | |
| | Reserve for Encumbrances | | 1,400,000 |
| | | | |
| 4. | Cash | 1,450,000 | |
| | Property Tax Receivable | | 1,450,000 |
| | | | |
| 5. | Cash | 50,000 | |
| | Due from Trust Fund | | 50,000 |
| | | | |
| 6. | Expenditures | 1,380,000 | |
| | Vouchers Payable | | 1,380,000 |
| | | | |
| | Reserve for Encumbrances | 1,360,000 | |
| | Encumbrances | | 1,360,000 |
| | | | |
| 7. | Cash | 48,000 | |
| | Revenue | | 48,000 |
| | | | |
| 8. | Vouchers Payable | 1,300,000 | |
| | Cash | | 1,300,000 |
| | | | |
| 9. | Due to Debt Service Fund | 80,000 | |
| | Cash | | 80,000 |
| | | | |
| 10. | Supplies Inventory | 25,000 | |
| | Reserve for Supplies Inventory | | 25,000 |
| | ($100,000 - $75,000 = $25,000) | | |

**Problem 17-4 (continued)**

**Part B**

### CITY OF MONTE VISTA
### The General Fund
### Preclosing Trial Balance
### December 31, 2009

| | Debits | Credits |
|---|---|---|
| Cash | $468,000 | |
| Property Tax Receivable | 50,000 | |
| Estimated Uncollectible Taxes | | 1,518,000 |
| Supplies Inventory | 100,000 | |
| Unreserved Fund Balance | | $370,000 |
| Reserve for Supplies Inventory | | 100,000 |
| Estimated Revenue | 1,600,000 | |
| Appropriations | | 1,530,000 |
| Transfers from Other Funds | | 50,000 |
| Transfers to Other Funds | 80,000 | |
| Revenue | | 30,000 |
| Encumbrances | 40,000 | |
| Reserve for Encumbrances | | 40,000 |
| Expenditures | 1,380,000 | |
| Vouchers Payable | | 80,000 |
| Total | $3,718,000 | $3,718,000 |

**Part C** Closing Entries

| | | |
|---|---|---|
| 1. Revenue | 1,518,000 | |
| Unreserved Fund Balance | 82,000 | |
| Estimated Revenue | | 1,600,000 |
| 2. Appropriations | 1,530,000 | |
| Expenditures | | 1,380,000 |
| Encumbrances | | 40,000 |
| Unreserved Fund Balance | | 110,000 |
| 3. Transfers From Other Funds | 50,000 | |
| Unreserved Fund Balance | 30,000 | |
| Transfers to Other Funds | | 80,000 |

**Problem 17-4 (continued)**

**Part D** Financial Statements

## CITY OF MONTE VISTA
## The General Fund
## Balance Sheet
## December 31, 2009

| | | |
|---|---|---|
| Assets | | |
| Cash | | $468,000 |
| Supplies Inventory | | 100,000 |
| Property Tax Receivable | $50,000 | |
| Less Estimated Uncollectible Taxes | 30,000 | 20,000 |
| Total | | $588,000 |
| | | |
| Liabilities and Fund Balance | | |
| Vouchers Payable | | 80,000 |
| Fund Balance: | | |
| Unreserved ($370,000 - $82,000 + $110,000 - $30,000) | $368,000 | |
| Reserve for Encumbrances | 40,000 | |
| Reserve for Supplies Inventory | 100,000 | 508,000 |
| Total | | $588,000 |

## CITY OF MONTE VISTA
## The General Fund
## Statement of Revenue, Expenditures and Changes in Fund Balance
## For the Year Ended December 31, 2009

| | | |
|---|---|---|
| Revenue | | $1,518,000 |
| Expenditures | | 1,380,000 |
| Revenues over expenditures | | 138,000 |
| | | |
| Other Financing Sources (uses) | | |
| Transfers From Other Funds | 50,000 | |
| Transfers to Other Funds | (80,000) | (30,000) |
| | | |
| Increase in Supplies Inventory | | 25,000 |
| Increase in Fund Balance | | 133,000 |
| | | |
| Fund Balance 1/1/ ($300,000 + $75,000) | | 375,000 |
| Fund Balance 12/31 | | $ 508,000 |

## Problem 17–5

**Part A** Journal Entries

| | | | |
|---|---|---|---|
| 1. | Estimated Revenue | 735,000 | |
| | Appropriations | | 700,000 |
| | Unreserved Fund Balance | | 35,000 |
| 2. | Property Tax Receivable | 590,000 | |
| | Estimated Uncollectible Taxes | | 24,000 |
| | Revenue | | 566,000 |
| 3. | Cash | 35,000 | |
| | Revenue | | 35,000 |
| 4. | Cash | 110,000 | |
| | Revenue | | 110,000 |
| 5. | Encumbrances | 642,500 | |
| | Reserve for Encumbrances | | 642,500 |
| 6. | Expenditures | 455,000 | |
| | Vouchers Payable | | 455,000 |
| | Reserve for Encumbrances | 470,000 | |
| | Encumbrances | | 470,000 |
| 7. | Expenditures - 2008 | 28,000 | |
| | Vouchers Payable | | 28,000 |
| 8. | Cash | 570,000 | |
| | Property Tax Receivable | | 570,000 |
| 9. | Vouchers Payable | 475,000 | |
| | Cash | | 475,000 |
| 10. | Cash | 50,000 | |
| | Due from Trust Fund | | 50,000 |
| 11. | Estimated Uncollectible Taxes | 30,000 | |
| | Property Tax Receivable | | 30,000 |

**Problem 17-5 (continued)**

**Part B**

**CITY OF FAIRFIELD**
**The General Fund**
**Preclosing Trial Balance**
**December 31, 2009**

| | Debits | Credits |
|---|---|---|
| Cash | $720,000 | |
| Property Tax Receivable | 35,000 | |
| Estimated Uncollectible Taxes | | $14,000 |
| Vouchers Payable | | 68,000 |
| Reserve for Encumbrances – 2008 | | 30,000 |
| Unreserve Fund Balance | | 450,000 |
| Estimated Revenue | 735,000 | |
| Appropriations | | 700,000 |
| Revenue | | 711,000 |
| Encumbrances | 172,500 | |
| Reserve for Encumbrances | | 172,500 |
| Expenditures | 455,000 | |
| Expenditures - 2008 | 28,000 | |
| Total | $2,145,500 | $2,145,500 |

**Part C** Closing Entries

| | | |
|---|---|---|
| 1. Revenue | 711,000 | |
| Unreserved Fund Balance | 24,000 | |
| Estimated Revenue | | 735,000 |
| 2. Reserve for Encumbrances - 2008 | 30,000 | |
| Expenditures - 2008 | | 28,000 |
| Unreserved Fund Balance | | 2,000 |
| 3. Appropriations | 700,000 | |
| Expenditures | | 455,000 |
| Encumbrances | | 172,500 |
| Unreserved Fund Balance | | 72,500 |

**Problem 17-5 (continued)**

**Part D**

### CITY OF FAIRFIELD
### The General Fund
### Balance Sheet
### December 31, 2009

| | | |
|---|---|---|
| Assets | | |
| Cash | | $720,000 |
| Property Tax Receivable | $35,000 | |
| Less Estimated Uncollectible Taxes | 14,000 | 21,000 |
| | | $741,000 |
| Liabilities and Fund Balance | | |
| Vouchers Payable | | $68,000 |
| Fund Balance | | |
| Unreserved ($450,000 - $24,000 + $2,000 + $72,500) | $500,500 | |
| Reserve for Encumbrances | 172,500 | 673,000 |
| Total | | $741,000 |

### CITY OF FAIRFIELD
### The General Fund
### Statement of Revenue, Expenditures and Changes in Fund Balance
### For the Year Ended December 31, 2009

| | |
|---|---|
| Revenue | $711,000 |
| Expenditures ($455,000 + $28,000) | 483,000 |
| Excess of Revenue over Expenditures | 228,000 |
| Fund Balance - January 1 ($415,000 + $30,000) | 445,000 |
| Fund Balance - December 31 | $673,000 |

## Problem 17-6

**Part A**

### HUNNINGTON TOWNSHIP
### Statement of Revenues, Expenditures and Changes in Fund Balance
### For the Year Ended June 30, 2009

| | |
|---|---|
| Revenue | $760,000[a] |
| Expenditures: | |
| Current Year's Appropriation | 712,500[b] |
| Prior Year's Appropriation | 42,500 |
| Total | 755,000 |
| Excess of Revenues over Expenditures | 5,000 |
| | |
| Sale of Equipment | 7,000 |
| Increase (Decrease) in Fund Balance | 12,000 |
| Fund Balance July 1, 2008 | 144,000[c] |
| Fund Balance June 30, 2009 | $156,000[d] |

[a] $700,000 + $60,000 = $767,000

[b] $755,000 - $42,500 = $712,500

| | |
|---|---|
| [c] Unreserved fund balance per trial balance | $80,000 |
| Add appropriations | 720,000 |
| Deduct estimated revenue (note 3) | (700,000) |
| Unreserved fund balance - July 1, 2008 | 100,000 |
| Reserve for encumbrances - July 1, 2008 | 44,000 |
| Fund Balance - July 1, 2008 | $144,000 |

| | |
|---|---|
| [d] Unreserved fund balance per trial balance | $80,000 |
| Add revenue in excess of estimated revenue ($767,000 - $700,000) | 67,000 |
| Deduct expenditures and encumbrances in excess of appropriations [($755,000 + $37,000) - $764,000] | (28,000) |
| Unreserved fund balance - June 30, 2009 | 119,000 |
| Reserve for encumbrances | 37,000 |
| Fund Balance - June 30, 2009 | $156,000 |

**Problem 17-6 (continued)**

**Part B**

### HUNNINGTON TOWNSHIP
### The General Fund
### Balance Sheet
### June 30, 2009

| | | |
|---|---|---|
| Assets | | |
| Cash | | $11,000 |
| Property Tax Receivable | $107,000 | |
| Less Estimated Uncollectible Taxes | 18,000 | 89,000 |
| Accounts Receivable | 40,000 | |
| Less Allowance for Uncollectible Accounts | 4,000 | 36,000 |
| Due from Internal Service Fund | | 50,000 |
| Total | | $186,000 |
| | | |
| Liabilities and Fund Balance | | |
| Vouchers Payable | | $20,000 |
| Due to Enterprise Fund | | 10,000 |
| Fund Balance: | | |
| Unreserved | $119,000 | |
| Reserve for Encumbrances | 37,000 | 156,000 |
| Total | | $186,000 |

**Problem 17-7**

**Part A** Omitted

**Part B** General Journal Entries

| | | | |
|---|---|---|---|
| 1A. | Estimated Revenue | 2,268,000 | |
| | Appropriations | | 2,225,000 |
| | Unreserved Fund Balance | | 43,000 |
| 1B. | Due from Water and Sewer Fund | 118,000 | |
| | Transfers From Other Funds | | 118,000 |
| 1C. | Transfers to Other Funds | 55,000 | |
| | Due to Debt Service Fund | | 55,000 |
| 2. | Encumbrances | 1,202,000 | |
| | Reserve for Encumbrances | | 1,202,000 |
| 3A. | Reserve for Encumbrances | 1,202,000 | |
| | Encumbrances | | 1,202,000 |
| 3B. | Expenditures - 2007 | 80,000 | |
| | Expenditures | 1,085,600 | |
| | Vouchers Payable | | 1,165,600 |
| 4. | Encumbrances | 78,000 | |
| | Reserve for Encumbrances | | 78,000 |
| 5. | Cash | 92,500 | |
| | Revenue | | 92,500 |
| 6. | Property Tax Receivable ($18,500,000 × 8%) | 1,480,000 | |
| | Revenue | | 1,450,400 |
| | Allowance for Uncollectible Taxes (2%) | | 29,600 |
| 7. | Cash | 58,000 | |
| | Due from Federal Government | | 58,000 |
| 8. | Due to Debt Service Fund | 55,000 | |
| | Cash | | 55,000 |
| 9. | Accounts Receivable | 155,675 | |
| | Revenue | | 155,675 |
| 10. | Cash | 1,438,455 | |
| | Allowance for Uncollectible Taxes | 18,250 | |
| | Property Tax Receivable | | 1,456,705 |
| 11. | Expenditures | 998,765 | |
| | Cash | | 998,765 |

**Problem 17-7 (continued)**

| | | | |
|---|---|---|---|
| 12. | Cash | 333,650 | |
| | Revenue | | 333,650 |
| 13. | Cash | 495,402 | |
| | Revenue ($98,682 + $130,000) | | 228,682 |
| | Accounts Receivable | | 148,720 |
| | Due from Water and Sewer Fund | | 118,000 |
| 14A. | Expenditures | 57,680 | |
| | Voucher Payable | | 57,680 |
| 14B. | Vouchers Payable | 57,680 | |
| | Cash | | 57,680 |
| 15A. | Reserve for Encumbrances | 78,000 | |
| | Encumbrances | | 78,000 |
| 15B. | Expenditures | 79,280 | |
| | Vouchers Payable | | 79,280 |
| 15C. | Vouchers Payable | 79,280 | |
| | Cash | | 79,280 |
| 16. | Vouchers Payable | 1,207,100 | |
| | Cash | | 1,207,100 |

## Problem 17-7 (continued)

**Part C**

### CITY OF ROSENBURG
### The General Fund
### Preclosing Trial Balance[1]
### December 31, 2008

| | Debit | Credit |
|---|---|---|
| Cash | $175,632 | |
| Certificates of Deposit | 200,000 | |
| Accounts Receivable | 35,630 | |
| Supplies Inventory | 37,600 | |
| Estimated Revenue | 2,268,000 | |
| Property Taxes Receivable | 98,895 | |
| Allowance for Uncollectible Taxes | | $43,500 |
| Appropriations | | 2,225,000 |
| Vouchers Payable | | 139,500 |
| Transfer from Water and Sewer Fund | | 118,000 |
| Transfer to Debt Service Fund | 55,000 | |
| Unreserved Fund Balance | | 269,075 |
| Reserve for Inventory | | 37,600 |
| Reserve for Encumbrances - 2007 | | 78,500 |
| Expenditures | 2,221,325 | |
| Revenues | | 2,260,907 |
| Encumbrances | 0 | |
| Expenditures - 2007 | 80,000 | |
| Reserve for Encumbrances | | 0 |
| | $5,172,082 | $5,172,082 |

[1] Before adjustment for inventory and accrued interest on certificates of deposit.

**Part D** Adjusting Entries

| | | Debit | Credit |
|---|---|---|---|
| 17a. | Certificates of Deposit ($200,000)(.05) | 10,000 | |
| | Revenues | | 10,000 |
| 17b. | Inventory | 650 | |
| | Reserve for Inventory ($38,250 - $37,600) | | 650 |

## Problem 17-7 (continued)

**Part E** Closing Entries

| | | Debit | Credit |
|---|---|---|---|
| a. | Revenue ($2,260,907 + $10,000) | 2,270,907 | |
| | Estimated Revenue | | 2,268,000 |
| | Unreserved Fund Balance | | 2,907 |
| b. | Appropriations | 2,225,000 | |
| | Expenditures | | 2,221,325 |
| | Unreserved Fund Balance | | 3,675 |
| c. | Reserve for Encumbrances - 2007 | 78,500 | |
| | Unreserved Fund Balance | 1,500 | |
| | Expenditures – 2007 | | 80,000 |
| d. | Transfer from Other Funds | 118,000 | |
| | Transfer To Other Funds | | 55,000 |
| | Unreserved Fund Balance | | 63,000 |

**Part F**

**CITY OF ROSEBURG**
**The General Fund**
**Balance Sheet**
**December 31, 2008 and 2007**

| Asset | **2008** | **2007** |
|---|---|---|
| Cash | $175,632 | $155,450 |
| Certificates of Deposit | 210,000 | 200,000 |
| Accounts Receivable | 35,630 | 28,675 |
| Due from Federal Government | 0 | 58,000 |
| Property Taxes Receivable (Less Allowance for Uncollectible Amounts, 2008 - $43,500; 2007 – $32,150) | 55,395 | 43,450 |
| Supplies Inventory | 38,250 | 37,600 |
| Total | $514,907 | $523,175 |
| Liabilities and Fund Balance | | |
| Vouchers Payable | $139,500 | $181,000 |
| Fund Balance: | | |
| Unreserved ($269,075 + $2,907 + $3,675 - $1,500 + $63,000) | 337,157 | 226,075 |
| Reserve for Encumbrances | 0 | 78,500 |
| Reserve for Inventory | 38,250 | 37,600 |
| Total Fund Balance | 375,407 | 342,175 |
| Total | $514,907 | $523,175 |

**Problem 17-7 (continued)**

**Part G**

### CITY OF ROSEBURG
### Statement of Revenues, Expenditures and other Changes in Fund Balance
### For the Year Ended December 31, 2008

| | |
|---|---|
| Revenue | $2,270,907 |
| Expenditures | 2,301,325 |
| Excess of expenditures over revenues | (30,418) |
| Transfers from Other Funds | 118,000 |
| Transfers to Other Funds | (55,000) |
| Increase in Supplies Inventory | 650 |
| Increase in Fund Balance | 33,232 |
| Fund Balance 1/1 | 342,175 |
| Fund Balance 12/31 | $375,407 |

**Problem 17-8**

## THE MADRAS SCHOOL DISTRICT
### General Fund Transactions
### July 1, 2008 through June 30, 2009

| | | Debit | Credit |
|---|---|---|---|
| 1. | Estimated Revenue | 3,000,000 | |
| | Appropriations | | 2,980,000 |
| | Unreserved Fund Balance | | 20,000 |
| | To record the adoption of the budget for the year | | |
| 2. | Property Tax Receivable (given) | 2,870,000 | |
| | Revenue from Taxes | | 2,800,000 |
| | Estimated Uncollectible Taxes | | 70,000 |
| | To record tax levy for year | | |
| 3. | Estimated Uncollectible Taxes | 40,000 | |
| | Property Tax Receivable | | 40,000 |
| | To record write-off of uncollectible taxes | | |
| 4. | Cash | 2,940,000 | |
| | Property Tax Receivable | | 2,810,000 |
| | Miscellaneous Revenue | | 130,000 |
| | To record cash collection during year | | |
| 5. | Encumbrances | 2,700,000 | |
| | Reserve for Encumbrances | | 2,700,000 |
| | To record encumbrances for current expenditures | | |
| 6. | Reserve for Encumbrances | 2,700,00 | |
| | Encumbrances | | 2,700,000 |
| | To reverse encumbrances | | |
| 7. | Expenditures | 2,700,000 | |
| | Vouchers Payable | | 2,700,000 |
| | To record vouchers payable | | |
| 8. | Vouchers Payable | 2,640,000 | |
| | Cash | | 2,640,000 |
| | To record cash payments during year | | |
| 9. | Expenditures - Prior Year | 58,000 | |
| | Vouchers Payable | | 58,000 |
| | To record expenditures for prior year | | |
| 10. | Reserve for Encumbrances | 60,000 | |
| | Expenditures - Prior Year | | 58,000 |
| | Fund Balance | | 2,000 |
| | To close out excess reserve to fund balance | | |

**Problem 17-8 (continued)**

| | | | |
|---|---|---|---|
| 11. | Due to Other Funds | 210,000 | |
| | Vouchers Payable | | 210,000 |
| | To record vouchers for payment to other funds | | |
| 12. | Expenditures | 142,000 | |
| | Due to Others Funds | | 142,000 |
| | To record expenditures for amounts due other funds | | |
| 13. | Encumbrances | 91,000 | |
| | Reserve for Encumbrances | | 91,000 |
| | To record encumbrances for new contract | | |

# CHAPTER 18

## ANSWERS TO QUESTIONS

1. **Fund Entities**

Governmental Funds

(1) General Fund - to account for all unrestricted resources except those required to be accounted for in another fund.

(2) Special Revenue Funds - to account for the proceeds of specific revenue sources (other than expendable trusts, or for major capital projects) that are legally restricted to expenditures for specified purposes.

(3) Capital Projects Funds - to account for financial resources segregated for the acquisition of major capital facilities (other than those financed by Enterprise Funds).

(4) Debt Service Funds - to account for the accumulation of resources for, and the payment of, interest and principal on general obligation long-term debt.

(5) Permanent Funds – to account for resources that are legally restricted to the extent that only earnings, and not principal, may be used for purposes that support the government's programs – that is, for the benefit of the government or its citizenry.

Proprietary Funds

(6) Enterprise Funds – to account for the provision of goods or services to the general public on a continuing basis where all or most of the costs involved are financed by user charges, or where periodic determination of revenue earned, expenses incurred, and /or net income is appropriate for management control, accountability, or other purposes.

(7) Internal Service Funds - to account for the financing of goods or services provided by one department or agency to other departments or agencies of the governmental unit, or to other governmental units, on a cost – reimbursement basis.

Fiduciary Funds

(8) Pension (and Other Employee Benefit) Trust Funds – used to report resources that are required to be held in trust for the members and beneficiaries of defined benefit pension plans, defined contribution plans, other postemployment benefit plans, or other employee benefit plans.

(9) Investment Trust Funds – used to report the external portion of investment pools reported by the sponsoring government.

(10) Private-Purpose Trust Funds – used to report escheat property and to report all other trust agreements under which principal and income benefit individuals, private organizations, or other governments.

(11) Agency Funds – used to report resources held by the reporting government in a purely custodial capacity (assets equal liabilities). Agency funds typically involve only the receipt, temporary investment, and remittance of fiduciary resources to individuals, private organizations, or other governments.

2. Government-wide statements are now required to help users assess the benefits and costs of various programs in a manner comparable to the appraisal of profit seeking businesses. For example, the revenues generated by a program can be compared to the expenses incurred by that program. The new requirements also enable a reconciliation to be made between the fund statements and these new government-wide statements.

   By providing this information, the government-wide statements should contribute to meeting the operational accountability aspects of the overall objective stated in the conceptual framework: fulfilling government's duty to be publicly accountable and enabling users to assess that accountability.

3. A governmental fund is an expendable fund entity. The accounting and reporting emphasis for a governmental fund is on the inflow, outflow, and unexpected balance of net financial resources and on the compliance with detailed legal provisions that specify the types of revenue to be raised and the purposes for which the financial resources may be used.

   The accounting and reporting emphasis of a proprietary fund is similar to that of a commercial enterprise. Thus, both current and fixed assets and current and noncurrent liabilities are accounted for in the records of proprietary fund entities. In addition, revenue, expenses (including depreciation) and net income are determined and reported for proprietary fund entities.

4. Fiduciary funds are classified as governmental funds or as proprietary funds depending upon whether or not their resources must be maintained intact. If the resources of a fiduciary fund may be expected to carry out its designated activities it is classified as a governmental (expendable) fund entity. If the principal of the fiduciary fund must be maintained intact it is classified as a proprietary (nonexpendable) fund entity.

5. A disbursement to another fund is treated as a receivable on the records of the fund that makes the disbursement when the disbursement constitutes an advance or loan to another fund.

   A disbursement to another fund is treated as an expenditure on the records of the fund that makes the disbursement when the disbursement constitutes a quasi-external transaction or a reimbursement. Quasi-external transactions are interfund transactions that would be treated as revenue, expense or expenditures if they were consummated with an organization external to the governmental unit. Reimbursements are transactions which involve the transfer of resources from one fund to another in order to reimburse the recipient fund for expenditures made by it that are properly expenditures of the reimbursing fund.

   All interfund transactions other than quasi-external transactions, reimbursements, and loans or advances are interfund transfers and are recorded as a transfer to other funds on the records of the fund that makes the disbursements.

6. Bonds payable may be included in the records of an Enterprise Fund, the government-wide statement of net assets and under some circumstances in the records of an internal Service Fund.

7. Property and other nonfinancial resources may be included in the records of an Enterprise Fund, an Internal Service Fund, a nonexpendable Trust Fund and the government-wied statement of net assets.

8. Estimated revenues and appropriations are formally recorded in the records of the General Fund to assist in the control and administration of general fund expenditures. In particular, the formal recording of appropriations is intended to assist administrators in complying with specific legal restrictions on the amount of various classifications of expenditures. Since the resources of a Capital Projects Fund can be expended for only the single authorized project for which the fund was created, the fund balance itself serves an adequate measure of and control over unexpended appropriation authority. Thus, there is no necessity to formally record the budgeted revenue and appropriation for the capital project.

9. Not all major capital facilities acquisitions are accounted for in Capital Projects Funds. Construction or acquisition of capital facilities financed by Enterprise Funds are accounted for in the records of those funds. In addition, there may be instances in which the resources of the General Fund or a Special Revenue Fund are appropriated for the acquisition of a major capital facility. So long as such acquisitions do not involve the issuance of general obligation long-term debt securities, they may be accounted for in the fund which appropriates the resources rather than in a separate Capital Projects Fund.

10. Unpaid interest on bonds payable incurred since the last payment date is not accrued as an expenditure and liability of the Debt Service Fund at year end. This exception to expenditure accrual is justified because financial resources that are appropriated in other funds or from general tax levies for transfer to or receipt by Debt Service Funds are usually appropriated in the period in which the interest on the debt must be paid. To accrue the Debt Service Fund expenditure and liability in one year, but record the transfer or collection of the financial resources appropriated for this purpose in a later year, would be confusing and potentially misleading.

11. Interfund activity includes the following four items

    1. *Interfund loans* – Interfund loans should be reported as interfund receivables in the lender fund and as an interfund payable in the borrower fund.
    2. *Interfund services provided and used* – (previously known as quasi-external transactions) sales and purchases of goods and services between funds for a price approximating their external exchange value. Interfund services provided and used should be reported as revenues in seller funds and expenses or expenditures in the purchaser funds. Unpaid amounts should be reported as interfund receivables and payables in the fund balance sheet or the statement of net assets.
    3. *Interfund transfers* – (formerly known as either residual equity transfers or operating transfers) flows of assets without an equivalent flow of assets in return and without a requirement for repayment. In government funds, transfers should be reported as ‘other financing uses’ in the funds and as ‘other financing sources’ in the funds receiving the transfer. In proprietary funds, transfers should be reported after non-operating revenues and expenses.
    4. *Interfund reimbursements – repayments from the funds* responsible for the particular expenditure or expense *to the funds* that initially paid for them. Reimbursements should not be displayed in the financial statements.

12. 1. Bonds Payable: F, J, and in some circumstances G.
    2. Reserve for Encumbrances; A, B, D, and H.
    3. Equipment: F, G, and J
    4. Appropriations: A, B, and D.
    5. Estimated Revenue; A and B.
    6. Property Taxes Receivable; A, B, C, D, H, and J
    7. Construction Work in Progress: F, G, and J.
    8. Accumulated Depreciation: F, G, H, and J.
    9. Depreciation Expense: F, G, H, and J.
    10. Required Earnings: C.

13. On the Statement of Net Assets, the primary reconciling items include capital assets and long-term liabilities. Capital assets used in governmental activities are not financial resources and are not reported in the funds. Long-term liabilities are not due and payable in the current period and are not reported in the governmental funds.

    In reconciling the net assets, the primary differences are capital expenditures, sales of assets, bond proceeds, and interest expense. Governmental funds report capital outlays as expenditures while governmental activities report depreciation expense over the life of the asset. In the statement of activities, the gain or loss from the sale is reported, while in the governmental funds, the proceeds from the sale are reported as revenues. Bond proceeds provide current financial resources to government funds, but issuing debt increases long-term liabilities on the statement of assets. In government funds, the interest paid is deducted, while in the statement of activities, interest expense is recognized according to the accrual method.

**Business Ethics**

Business ethics solutions are merely suggestions of points to address. The objective is to raise the students' awareness of the topics, and to invite discussion. In most cases, there is clear room for disagreement or conflicting viewpoints.

1. The current periods financial statements would only reflect the amounts actually paid in the current period (current financial resources).
2. Under GASB 45, the liability for future amounts to be paid would have to be reported on a present value basis on the government-wide statement of net assets.
3. Since the actual outlay associated with an increased benefit does not have to be paid in the current period, the decision defers the economic consequences until a future period.
4. One issue to consider is whether the government is concerned about future fiscal responsibility. If the debt does not have to be recorded on the books, it might give an unrealistic view of the financial responsibility for future payments that the government has offered. Also, because in many cases, the benefits are not guaranteed, there is a likelihood that the benefits might be canceled in the future if the government can not afford them.

## Answers to Analyzing Financial Statements

### AFS 18-1 Type of Government Fund

Part A

1. __*P*_ Department of Aviation (Airport Authority)
2. _*G*__ Police and Fire Departments
3. _*P*__ Water and Wastewater System
4. _*F*__ Agency Funds
5. _*P*__ Sanitation
6. _*G*__ Public Works
7. _*F*__ Pension and Retirement Trust Funds
8. _*P*__ Internal Service (i.e. Information Technology)
9. _*G*__ Payment of General Obligation Debt

Part B

These funds much operate much like business in that they earn revenues by providing some product or service.

### AFS 18-2 Statement of Net Assets

1. The balance in unrestricted net assets is a positive $145,896.
2. A growing negative number might indicate that the government has been funding long-term obligations on a year-to-year basis rather than setting aside funds for these liabilities. The amount of cash reported on the statement is $29,706, which is significantly less than the amount of unrestricted net assets,
3. The largest restricted net asset category is for capital projects at $139,431.

### AFS 18-3 Reconciling the Government Fund Balance with the Government-wide Statement of Net Assets

1. a. Capital assets used in governmental activities are not current financial resources are aren't reported in governmental funds (only on the government-wide statements. b. Long-term liabilities are not due during the current period and are not recognized in government funs.

2. Accounts receivables are not current period financial resources and are not reported on governmental funds.

**AFS 18-4 Statement of Activities**

1.

| Governmental Activities | Program Revenue<br>Minus Expenses |
|---|---|
| General government | $15,668 |
| Police | (115,815) |
| Fire | (63,297) |
| Corrections | (27,022) |
| Public works | (64,635) |
| Parks, Recreation, and Cultural Affairs | (26,142) |

2.

| Business-Type Activities | Program Revenue<br>Minus Expenses |
|---|---|
| Watershed management | $23,453 |
| Aviation | 199,482 |
| Sanitation | (317) |
| Parks and Recreational Facilities | (430) |
| Underground Atlanta | (8,244) |
| Civic Center | (80) |

## ANSWERS TO EXERCISES

### Exercise 18-1

1. General Fund
2. Capital Projects Fund
3. Capital Projects Fund
4. Capital Projects Fund

### Exercise 18–2

1. General Fund
   Internal Service Fund
2. Capital Projects Fund
   Debt Service Fund
3. General Fund
4. Debt Service Fund

### Exercise 18-3

**Part A**

1. Interfund loan

Special Revenue Fund

| | | |
|---|---|---|
| Due From Internal Service Fund | 8,000 | |
| Cash | | 8,000 |

Internal Service Fund

| | | |
|---|---|---|
| Cash | 8,000 | |
| Due to Special Revenue Fund | | 8,000 |

2. Interfund service provided and used

Internal Service Fund

| | | |
|---|---|---|
| Due From Special Revenue Fund | 20,000 | |
| Revenue | | 20,000 |

Special Revenue Fund

| | | |
|---|---|---|
| Expenditures | 20,000 | |
| Due to Internal Service Fund | | 20,000 |

### Exercise 18–3 (continued)

3. Interfund Reimbursement

General Fund

| | | | |
|---|---|---|---|
| | Due From Debt Service Fund | 14,000 | |
| | Expenditures | | 14,000 |
| | | | |
| | Debt Service Fund | | |
| | Expenditures | 14,000 | |
| | Due to General Fund | | 14,000 |
| | | | |
| 4. | Interfund Transfer | | |
| | | | |
| | Capital Projects Fund | | |
| | Transfer to General Fund | 65,000 | |
| | Cash | | 65,000 |
| | | | |
| | General Fund | | |
| | Cash | 65,000 | |
| | Transfer From Capital Projects Fund | | 65,000 |
| | | | |
| 5. | Interfund Transfer | | |
| | | | |
| | Trust Fund | | |
| | Transfer to Special Revenue Fund | 35,000 | |
| | Cash | | 35,000 |
| | | | |
| | Special Revenue Fund | | |
| | Cash | | |
| | Transfer From Trust Fund | 35,000 | |
| | | | 35,000 |
| 6. | Interfund Transfer | | |
| | | | |
| | General Fund | | |
| | Transfer to Internal Service Fund | 100,000 | |
| | Cash | | 100,000 |
| | | | |
| | Internal Service Fund | | |
| | Cash | 100,000 | |
| | Contributions From General Fund | | 100,000 |

**Part B**

Residual equity transfers represent non-recurring transfers while operating transfers consist of recurring transfers between funds for the purpose of shifting resources from the fund legally required to record the revenue to the fund legally required to expend the revenue. Both types of transfers are reported as “other financial uses or sources on the Statement of Revenues, Expenditures and Changes in Fund Balance.

## Exercise 18–4

| | | | |
|---|---|---|---|
| 1. | Government-Wide Statement of Net Assets | | |
| | Land ($8,000 x 100) | 800,000 | |
| | Revenue from Donations | | 800,000 |

|  |  |  |  |
|---|---|---|---|
| 2. | General Fund |  |  |
|  | Transfer to Capital Projects Fund | 100,000 |  |
|  | Cash |  | 100,000 |
|  |  |  |  |
|  | Capital Projects Fund |  |  |
|  | Cash | 1,000,000 |  |
|  | Bond Issue Proceeds |  | 1,000,000 |
|  | Cash | 100,000 |  |
|  | Transfer From General Fund |  | 100,000 |
|  |  |  |  |
|  | Government-Wide Statement of Net Assets |  |  |
|  | Cash | 1,000,000 |  |
|  | Bonds Payable |  | 1,000,000 |
|  |  |  |  |
| 3. | Capital Projects Fund |  |  |
|  | Expenditures | 1,100,000 |  |
|  | Cash |  | 1,100,000 |
|  |  |  |  |
|  | Bond Issue Proceeds | 1,000,000 |  |
|  | Transfers From General Fund | 100,000 |  |
|  | Expenditures |  | 1,100,000 |
|  |  |  |  |
|  | Government-Wide Statement of Net Assets |  |  |
|  | Cash | 1,000,000 |  |
|  | Bond payable |  | 1,000,000 |

## **Exercise 18–5**

|  |  |  |  |
|---|---|---|---|
| 1. | General Fund |  |  |
|  | Due to Special Revenue Fund | 10,000 |  |
|  | Expenditures | 900 |  |
|  | Cash |  | 10,900 |
|  |  |  |  |
|  | Special Revenue Fund |  |  |
|  | Cash | 10,900 |  |
|  | Due From General Fund |  | 10,000 |
|  | Revenue |  | 900 |

**Exercise 18–5 (continued)**

2.

| | | |
|---|---|---|
| Capital Projects Fund | | |
| Cash | 2,300,000 | |
| Bond Issue Proceeds | | 2,300,000 |
| | | |
| Transfer to Debt Service Fund | 300,000 | |
| Cash | | 300,000 |
| | | |
| Debt Service Fund | | |
| Cash | 300,000 | |
| Transfer From Capital Projects Fund | | 300,000 |

3.

| | | |
|---|---|---|
| Capital Projects Fund | | |
| Expenditures | 1,960,000 | |
| Cash | | 1,960,000 |
| | | |
| Bond Issue Proceeds | 2,300,000 | |
| Expenditures | | 1,960,000 |
| Transfer to Debt Service Fund | | 300,000 |
| Unreserved Fund Balance | | 40,000 |
| | | |
| Transfer to Debt Service Fund | 40,000 | |
| Cash | | 40,000 |
| | | |
| Unreserved Fund Balance | 40,000 | |
| Transfer to Debt Service Fund | | 40,000 |
| | | |
| Debt Service Fund | | |
| Cash | 40,000 | |
| Transfer from Capital Projects Fund | | 40,000 |

## Exercise 18–6

| | | | |
|---|---|---|---|
| **2008** | | | |
| June 29 | Cash | 36,000 | |
| | Transfer from Special Revenue Fund | | 36,000 |
| | To record transfer received | | |
| July 1 | Expenditures | 36,000 | |
| | Cash | | 36,000 |
| | To record interest payment (1/2 × 9% × $800,000) | | |
| Dec. 18 | Cash | 20,000 | |
| | Transfer from Special Revenue Fund | | 20,000 |
| | To record transfer received | | |
| **2009** | | | |
| Jan. 1 | Expenditures | 116,000 | |
| | Cash | | 116,000 |
| | To record interest and principal payment<br>($80,000 + (1/2 × 9% × $800,000)) | | |
| **2018** | | | |
| Jan. 2 | Cash | 55,000 | |
| | Investments | | 55,000 |
| | To liquidate investments | | |
| Jan. 2 | Expenditures | 83,600 | |
| | Cash | | 83,600 |
| | To make last bond principal and interest payment<br>($80,000 + (1/2 × 9% × $80,000)) | | |
| Jan. 4 | Unreserved Fund Balance | 83,600 | |
| | Expenditures | | 83,600 |
| | To close expenditures | | |
| Jan. 4 | Transfer to Special Revenue Fund | 11,400 | |
| | Cash ($40,000 + $55,000 - $83,600) | | 11,400 |
| | To transfer remaining assets | | |
| Jan. 4 | Unreserved Fund Balance | 11,400 | |
| | Transfer to Special Revenue Fund | | 11,400 |
| | To close remaining accounts | | |

## Exercise 18–7

1. a
2. b
3. a
4. b
5. d

## Exercise 18–8

1. d
2. b
3. b
4. d
5. a

## Exercise 18–9

1. a
2. d
3. c
4. a
5. d

## Exercise 18-10

1. Capital projects fund
   Long-term obligation account group

2. The general fund
   Internal service fund

3. Trust fund (proprietary)

4. Enterprise fund

5. Debt service fund

6. The general fund

7. Capital projects fund

8. Enterprise fund

9. Capital projects fund

10. The general fund

11. Debt service fund

12. Debt service fund

13. Debt service fund

14. Debt service fund

15. Agency fund

16. The general fund
17. The general fund

18. Internal service fund
    The general fund

19. Enterprise fund
    The general fund

.

**Exercise 18-11**

| | | | |
|---|---|---|---|
| 1. | Due From Special Revenue Fund | 250,000 | |
| | Transfer from Special Revenue Fund | | 250,000 |
| | | | |
| 2. | Cash | 125,000 | |
| | Due From Special Revenue Fund | | 125,000 |
| | | | |
| 3. | Certificate of Deposit | 125,000 | |
| | Cash | | 125,000 |
| | | | |
| 4. | Encumbrances | 250,000 | |
| | Reserve for Encumbrances | | 250,000 |
| 5. | Expenditures | 3,125 | |
| | Vouchers Payable | | 3,125 |
| | | | |
| 6. | Reserve for Encumbrances | 250,000 | |
| | Encumbrances | | 250,000 |
| | | | |
| | Expenditures | 250,000 | |
| | Contracts Payable | | 250,000 |
| | | | |
| 7. | Cash | 128,125 | |
| | Certificate of Deposit | | 125,000 |
| | Revenue ($125,000 × 5% × 6/12) | | 3,125 |
| | | | |
| 8. | Cash | 125,000 | |
| | Due From Special Revenue Fund | | 125,000 |
| | | | |
| 9. | Vouchers Payable | 3,125 | |
| | Contracts Payable | 250,000 | |
| | Cash | | 240,625 |
| | Contracts Payable - Retained Percentage | | 12,500 |
| | | | |
| 10. | Contracts Payable - Retained Percentage | 12,500 | |
| | Cash | | 12,500 |
| | | | |
| | Revenue | 3,125 | |
| | Transfer from Special Revenue Fund | 250,000 | |
| | Expenditures | | 253,125 |

## Exercise 18-12

| | | | |
|---|---|---|---|
| 1. | Encumbrances | 150, 000 | |
| | Reserve for Encumbrances | | 150, 000 |
| 2. | Cash | 155,000 | |
| | Bond Issue Proceeds | | 155,000 |
| 3. | Transfer to Debt Service Fund | 5,000 | |
| | Cash | | 5,000 |
| 4. | Reserve for Encumbrances | 150,000 | |
| | Encumbrances | | 150,000 |
| | Expenditures | 150,000 | |
| | Contracts Payable | | 150,000 |
| 5. | Contracts Payable | 150,000 | |
| | Contracts Payable - Retained Percentage | | 7,500 |
| | Cash | | 142,500 |
| 6. | Contracts Payable - Retained Percentage | 7,500 | |
| | Cash | | 7,500 |
| | Bond Issue Proceeds | 155,000 | |
| | Transfer to Debt Service Fund | | 5,000 |
| | Unreserved Fund Balance | | 150,000 |
| | Unreserved Fund Balance | 150,000 | |
| | Expenditures | | 150,000 |

**Exercise 18-13**

| | | Assets | % of | % of | Liabilities | | | Revenues | | | Expenditures | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | **Government fund** | | Gov. | Total | | | | | | | | | |
| 1 | General Fund | 347,000 | 15% | 3% | 73,000 | 56% | 1% | 1,740,750 | **56%** | **38%** | 1,858,000 | **49%** | **37%** |
| 2 | Library and Civic Center | 1,562,500 | **66%** | **12%** | 50,000 | 38% | 1% | 1,012,500 | **33%** | **22%** | 1,500,000 | **40%** | **30%** |
| 3 | Library & Civic Center - Term bonds | 104,000 | 4% | 1% | - | 0% | 0% | 316,000 | **10%** | **7%** | 396,000 | **10%** | **8%** |
| 4 | Land Acquisition - Serial Bond | 21,000 | 1% | 0% | - | 0% | 0% | 4,000 | 0% | 0% | - | 0% | 0% |
| 5 | Classics Acquisitions | 29,500 | 1% | 0% | - | 0% | 0% | - | 0% | 0% | 18,000 | 0% | 0% |
| 6 | Classics Endowment | 307,500 | 13% | 2% | 7,500 | 6% | 0% | 30,000 | 1% | 1% | - | 0% | 0% |
| | | 2,371,500 | | | 130,500 | | | 3,103,250 | | | 3,772,000 | | |
| | 10% of total government funds | 237,150 | | | 13,050 | | | 310,325 | | | 377,200 | | |
| | | | | | | | | | | | | | |
| | **Proprietary funds** | | | | | | | | | | | | |
| 13 | Sewer Fund | 11,100,000 | **100%** | **82%** | 4,843,000 | **100%** | **97%** | 1,500,000 | **100%** | **33%** | 1,280,000 | **100%** | **25%** |
| | | 11,100,000 | | | 4,843,000 | | | 1,500,000 | | | 1,280,000 | | |
| | 10% of total Proprietary funds | 1,110,000 | | | 484,300 | | | 150,000 | | | 128,000 | | |
| | | | | | | | | | | | | | |
| | Total government and prop. | 13,471,500 | | | 4,973,500 | | | 4,603,250 | | | 5,052,000 | | |
| | 5% of total | 673,575 | | | 248,675 | | | 230,163 | | | 252,600 | | |

The General Fund is always considered a major fund. The following funds are considered major because they exceed 10% of the total amounts for that class of fund (either governmental or proprietary) and 5% or the total of both classes (governmental and proprietary): The major funds are the General Fund, the Library and Civic Center Fund, The Library and Civic Center – Term Bond Fund, and the Sewer Fund.

**Exercise 18-14**

1.

**Governmental Funds**
**Statement of Revenues, Expenditures, and Changes in Fund Balance**
**For the Year Ended December 31, 2008**

| | General Fund | Capital Projects Fund | Debt Service Fund | Total Governmental Funds |
|---|---|---|---|---|
| **Revenues** | | | | |
| **Expenditures** | | | | |
| Interest Paid | | | (7,000) | (7,000) |
| **Other Financing Sources (Uses)** | | | | |
| Bond Issue Proceeds | | 96,007 | | 96,007 |

2.

**Government-wide**
**Statement of Net Assets**
**December 31, 2008**

| | |
|---|---|
| Bonds Payable | $ 96,688 |

3.

**Government-wide**
**Statement of Activities**
**For the Year Ended December 31, 2008**

| | |
|---|---|
| Interest Expense | $ (7,681) |

| **Amortization Schedule**<br>(market rate =8%) | Interest Expense | Cash Paid (7%) | Discount Amortization | Balance |
|---|---|---|---|---|
| 1/1/04 | | | | 96,007 |
| 12/31/04 | 7,681 | 7,000 | 681 | 96,688 |
| 12/31/05 | 7,735 | 7,000 | 735 | 97,423 |

**Exercise 18-15**

1.

| Governmental Funds<br>Statement of Revenues, Expenditures, and Changes in Fund Balance<br>For the year ended December 31, 2008 | General Fund | Capital Projects Fund | Debt Service Fund | Total Governmental Funds |
|---|---|---|---|---|
| **Revenues** | | | | |
| | | | | |
| **Expenditures** | | | | |
| Expenditure | | (100,000) | | (100,000) |
| | | | | |
| **Other Financing Sources (Uses)** | | | | |
| | | | | |
| **Special Items** | | | | |
| Revenue from Asset Sale | 65,000 | | | 65,000 |

2.

| Government-wide<br>Statement of Net Assets<br>December 31, 2008 | |
|---|---|
| Capital Assets | $ 525,000 |
| Accumulated Depreciation | (205,000) |
| Net Capital Assets | $ 320,000 |

3.

| Government-wide<br>Statement of Activities<br>For the Year Ended December 31, 2008 | |
|---|---|
| Depreciation Expense | $ (30,000) |
| Gain on Sale ($65,000 – ($75,000 - $25,000)) | 15,000 |

**Exercise 18-16**

Reconciliation of the Statement of Revenues,
Expenditures, and Changes in Fund Balances of Governmental
Funds to the Statement of Activities
For the Year Ended December 31, 2008

| | |
|---|---|
| Net change in fund balances - total governmental funds | $ 1,100,000 |
| Governmental funds report capital outlays as expenditures while governmental activities report depreciation expense to allocate those expenditures over the life of the asset. This is the amount by which capital outlays exceeded depreciation in the current period. | 20,000 |
| In the statement of activities, only the gain on the sale of equipment is reported, while in the governmental funds, the proceeds from the sale increase financial resources. Thus, the change in net assets differs from the change in fund balance by the book value of the asset sold. | (7,500) |
| Bond proceeds provide current financial resources to governmental funds, but issuing debt increases long-term liabilities in the statement of net assets. | (104,213) |
| Interest expense recognized on the accrual basis is less than the amounts paid by the amortization of the bond premium. | 747 |
| Change in Net Assets of Governmental Activities | **$ 1,009,034** |

**Exercise 18-17**

Reconciling the Statement of Net Assets with Governmental Fund Reporting
For the Year Ended December 31, 2008

| | |
|---|---|
| Fund balance for governmental activities | **$ 3,125,000** |
| Capital assets used in governmental activities are not financial resources and are not reported in the funds | 612,500 |
| Long-term liabilities are not due and payable in the current period and therefore are not reported in the funds. | (103,466) |
| Net Assets in Governmental Activities | **$ 3,634,034** |

## ANSWERS TO PROBLEMS

### Problem 18–1

| **Part A** | Year | Required Principal Payment | Required Earnings | Required Increase In Fund Balance | Required Fund Balance |
|---|---|---|---|---|---|
| | 2008 | 61,607[a] | ------ | 61,607 | 61,607 |
| | 2009 | 61,607 | 4,929 | 66,536 | 128,143 |
| | 2010 | 61,607 | 10,250 | 71,857 | 200,000 |

[a] $200,000/3.2464 = 61,607

| | | | | |
|---|---|---|---|---|
| **Part B** | 1. | Required Additions | 71,607 | |
| | | Required Earnings | 4,929 | |
| | | Appropriations ($200,000 × 5%) | | 10,000 |
| | | Fund Balance | | 66,536 |
| | 2. | Cash | 71,607 | |
| | | Transfer from General Fund | | 71,607 |
| | 3. | Expenditures - Interest | 10,000 | |
| | | Cash | | 10,000 |
| | 4. | Cash | 4,929 | |
| | | Interest Income | | 4,929 |
| | 5. | Appropriations | 10,000 | |
| | | Expenditures | | 10,000 |
| | | Interest Income | 4,929 | |
| | | Transfer from General Fund | 71,607 | |
| | | Required Additions | | 71,607 |
| | | Required Earnings | | 4,929 |

### Problem 18–2

| | | | |
|---|---|---|---|
| 1. | Capital Projects Fund | | |
| | Cash | 190,000 | |
| | Bond Issue Proceeds | | 190,000 |
| | Transfer to Debt Service Fund | 15,000 | |
| | Cash | | 15,000 |
| | Debt Service Fund | | |
| | Cash | 15,000 | |
| | Transfer from Capital Projects Fund | | 15,000 |

**Problem 18–2 (continued)**

| | | | |
|---|---|---|---|
| 2. | Capital Projects Fund | | |
| | Encumbrances | 175,000 | |
| | Reserve for Encumbrances | | 175,000 |
| 3. | Capital Project Fund | | |
| | Reserve for Encumbrances | 85,000 | |
| | Encumbrances | | 85,000 |
| | Expenditures | 85,000 | |
| | Contracts Payable | | 85,000 |
| 4. | Capital Projects Fund | | |
| | Contracts Payable | 85,000 | |
| | Cash | | 85,000 |
| 5. | Capital Projects Fund | | |
| | Bond Issue Proceeds | 190,000 | |
| | Transfer to Debt Service Fund | | 15,000 |
| | Unreserved Fund Balance | | 175,000 |
| | Unreserved Fund Balance | 175,000 | |
| | Encumbrances | | 90,000 |
| | Expenditures | | 85,000 |
| | Debt Service Fund | | |
| | Transfer from Capital Projects Fund | 15,000 | |
| | Fund Balance | | 15,000 |
| 6. | Capital Projects Fund | | |
| | Encumbrances | 90,000 | |
| | Unreserved Fund Balance | | 90,000 |

**Problem 18–2 (continued)**

| | | | |
|---|---|---|---|
| 7. | Capital Projects Fund | | |
| | Reserves for Encumbrances | 90,000 | |
| | Encumbrances | | 90,000 |
| | | | |
| | Expenditures | 90,000 | |
| | Contracts Payable | | 90,000 |
| | | | |
| 8. | Capital Projects Fund | | |
| | Contracts Payable | 90,000 | |
| | Contracts Payable-Retained Percentage | | 4,500 |
| | Cash | | 85,500 |
| | | | |
| 9. | Capital Projects Fund | | |
| | Contracts Payable – Retained Percentage | 4,500 | |
| | Cash | | 4,500 |

**Problem 18–3**

| | | | | |
|---|---|---|---|---|
| **Part A** | 1. | Capital Projects Fund | | |
| | | Cash | 500,000 | |
| | | Bond Issue Proceeds | | 500,000 |
| | | | | |
| | 2. | Capital Projects Fund | | |
| | | Expenditures | 500,000 | |
| | | Cash | | 500,000 |
| | | | | |
| | 3. | Debt Service Fund | | |
| | | Special Assessment Receivable | 160,000 | |
| | | Special Assessment Revenue | | 160,000 |
| | | (($500,000/4) + (0.07 × $500,000)) | | |

**Problem 18–3 (continued)**

| | | | | |
|---|---|---|---|---|
| | 4. | Debt Service Fund | | |
| | | Cash | 160,000 | |
| | | Special Assessment Receivable | | 160,000 |
| | | | | |
| | | Expenditures - Principal | 125,000 | |
| | | Expenditures - Interest | 35,000 | |
| | | Cash | | 160,000 |
| | | | | |
| **Part B** | 1. | Capital Projects Fund | | |
| | | Cash | 500,000 | |
| | | Contribution from Property Owners | | 500, 000 |
| | | | | |
| | 2. | Capital Projects Fund | | |
| | | Expenditures | 500,000 | |
| | | Cash | | 500,000 |
| | | | | |
| | 3. | No Entry | | |
| | | | | |
| | 4. | Agency Fund | | |
| | | Cash | 160,000 | |
| | | Amount Held for Debt Service | | 160,000 |
| | | | | |
| | | Amount Held for Debt Service | 160,000 | |
| | | Cash | | 160,000 |

**Problem 18-4**

**2008**

| | | | |
|---|---|---|---|
| Jan. 1 | Cash | 380,000 | |
| | Contribution from General Fund | | 25,000 |
| | Advance from Electric Utility Fund | | 355,000 |
| | | | |
| Jan. 4 | Land | 25,000 | |
| | Building | 150,000 | |
| | Equipment – Hardware | 125,000 | |
| | Equipment - Protection | 55,000 | |
| | Cash | | 355,000 |
| | | | |
| Apr. 10 | Cost of Service | 200,000 | |
| | Computer Service | | 200,000 |
| | | | |
| | Due from Electric Utility Fund | 250,000 | |
| | Billing to Departments | | 250,000 |
| | | | |
| Apr. 29 | Administrative Expenses | 10,000 | |
| | Vouchers Payable | | 10,000 |
| | | | |
| May 1 | Cash | 37,750 | |
| | Due from Electric Utility Fund | | 37,750 |
| | | | |
| May 1 | Vouchers Payable | 10,000 | |
| | Cash | | 10,000 |
| | | | |
| Dec. 2 | Advance from Electric Utility Fund | 17,750 | |
| | Cash | | 17,750 |
| | | | |
| Dec. 30 | Administrative Expenses ($150,000/25 + $125,000/5 + $55,000/10) | 36,500 | |
| | Accumulated Depreciation | | 36,500 |
| | | | |
| Dec. 31 | Billing to Departments | 250,000 | |
| | Cost of Service | | 200,000 |
| | Administrative Expenses | | 46,500 |
| | Excess of Billings to Departments over Costs | | 3,500 |
| | | | |
| Dec. 31 | Excess of Billings to Departments Over Costs | 3,500 | |
| | Unrestricted Net Assets | | 3,500 |

**Problem 18-5**

| | | | | |
|---|---|---|---|---|
| **Part A** | Jan. 1 | Property Taxes Receivable - 2008 | 466,104 | |
| | | Estimated Uncollectible Taxes | | 13,983 |
| | | Due to Governmental Units<br>($8.00 × ($5,826,300/$100) = $466,104) | | 452,121 |
| | | To record property taxes assessed | | |
| | Apr. 30 | Cash | 372,883 | |
| | | Property Taxes Receivable - 2008 | | 372,883 |
| | | To record taxes collected | | |
| | Apr. 30 | Due to Governmental Units | 372,883 | |
| | | Due to County Government - Taxes<br>($372,883 × 0.99 × ($120/$800) = $55,373) | | 55,373 |
| | | Due to State Government<br>($372,883 × 0.99 × ($80/$800) = $36,915) | | 36,915 |
| | | Due to City of Midvale<br>($372,883 × 0.99 × ($280/$800) = $129,204) | | 129,204 |
| | | Due to Unified School District<br>($372,883 × 0.99 × ($320/$800) = $147,662) | | 147,662 |
| | | Due to General Fund - County<br>$372,883 × 0.01 = $3,729 | | 3,729 |
| | | To record tax collections payable to government entities and collection charge | | |
| | Apr. 30 | Due to County Government - Taxes | 55,373 | |
| | | Due to State Government | 36,915 | |
| | | Due to City of Midvale | 129,204 | |
| | | Due to Unified School District | 147,662 | |
| | | Due to General Fund - County | 3,729 | |
| | | Cash | | 372,883 |
| | | To record distribution of taxes collected to date | | |
| | June 30 | Cash | 73,412 | |
| | | Property Taxes Receivable - 2008 | | 69,916 |
| | | Due to Governmental Units | | 3,496 |
| | | To record net tax collections and record penalties collected in fund balance ($73,412/1.05 = $69,916) | | |

**Problem 18-5 (continued)**

| | | | |
|---|---|---|---|
| June 30 | Due to Governmental Units | 73,412 | |
| | Due to County Government - Taxes | | |
| | ($73,412 × 0.99 × ($120/$800) = $10,902) | | 10,902 |
| | Due to State Government | | |
| | ($73,412 × 0.99 × ($80/$800) = $7,268) | | 7,268 |
| | Due to City of Midvale | | |
| | ($73,412 × 0.99 × ($280/$800) = $25,437) | | 25,437 |
| | Due to Unified School District | | |
| | ($73,412 × 0.99 × ($320/$800) = $29,071) | | 29,071 |
| | Due to General Fund - County | | |
| | $73,412 × 0.01 = $734 | | 734 |
| | To record tax collections payable to government entities and collection fee | | |
| | | | |
| June 30 | Due to County Government – Taxes | 10,902 | |
| | Due to State Government | 7,268 | |
| | Due to City of Midvale | 25,437 | |
| | Due to Unified School District | 29,071 | |
| | Due to General Fund – County | 734 | |
| | Cash | | 73,412 |
| | To record distribution of taxes collected | | |
| | | | |
| June 30 | Property Taxes Receivable – Delinquent (2008) | 23,305 | |
| | Property Taxes Receivable (2008) | | 23,305 |
| | ($466,104 - $372,883 - $69,916 = $23,305) | | |
| | To classify uncollected taxes (2008) as delinquent | | |

**Part B**

**MECKLENBURG COUNTY**
**Tax Agency Fund**
**Balance Sheet – June 30, 2008**

| | | |
|---|---|---|
| Assets: | | |
| Property Taxes Receivable – Delinquent (2008) | 23,305 | |
| Less Estimated Uncollectible Taxes | 13,983 | |
| Total | | $9,322 |
| | | |
| Due to Governmental Units | | $9,322 |

**Problem 18–6**

| | | | | |
|---|---|---|---|---|
| | | General Fund | | |
| (A) | | Estimated Revenues | 4,900,000 | |
| | | Unreserved Fund Balance | 100,000 | |
| | | Appropriations | | 5,000,000 |
| (B) | | General Fund | | |
| | | Property Tax Receivable ($204,800,000/$100)(.25)($6.25) | 3,200,000 | |
| | | Estimated Uncollectible Taxes | | 96,000 |
| | | Revenue | | 3,104,000 |
| | | Capital Projects Fund | | |
| (C) | (a) | Cash | 1,050,000 | |
| | | Bond Issue Proceeds | | 1,050,000 |
| | | Capital Projects Fund | | |
| (D) | (a) | Transfer to Debt Service Fund | 50,000 | |
| | | Cash | | 50,000 |
| | | Debt Service Fund | | |
| | (b) | Cash | 50,000 | |
| | | Transfer from Capital Projects Fund | | 50,000 |
| | | General Fund | | |
| (E) | | Estimated Uncollectible Taxes | 52,550 | |
| | | Property Tax Receivable | | 52,550 |
| | | Capital Projects Fund | | |
| (F) | (a) | Bond Issue Proceeds | 1,050,000 | |
| | | Transfer to Debt Service Fund | | 50,000 |
| | | Expenditures | | 989,000 |
| | | Unreserved Fund Balance | | 11,000 |
| | (b) | Transfer to Debt Service Fund | 11,000 | |
| | | Cash | | 11,000 |
| | (c) | Unreserved Fund Balance | 11,000 | |
| | | Transfer to Debt Service Fund | | 11,000 |

**Problem 18-6 (continued)**

| | | | | |
|---|---|---|---|---|
| | | Debt Service Fund | | |
| | (d) | Cash | 11,000 | |
| | | Transfer from Capital Projects Fund | | 11,000 |
| | | | | |
| | | Capital Projects Fund | | |
| (G) | (a1) | Cash | 600,000 | |
| | | Bond Issue Proceeds | | 600,000 |
| | | | | |
| | | Debt Service Fund | | |
| | (b1) | Expenditures – Principal | 120,000 | |
| | | Expenditures - Interest | 36,000 | |
| | | Cash | | 156,000 |
| | | | | |
| | | Capital Projects Fund | | |
| (H) | (a) | Expenditures | 590,000 | |
| | | Cash | | 590,000 |

**Problem 18–7**

| Item | Fund | Journal Entries | | |
|---|---|---|---|---|
| 1. | Capital Projects | Cash | 2,000,000 | |
| | | Bond Issue Proceeds | | 1,000,000 |
| | | Transfer From General Fund | | 1,000,000 |
| | General | Transfer to Capital Projects Fund | 1,000,000 | |
| | | Cash | | 1,000,000 |
| 2. | Debt Service | Expenditures | 920,000 | |
| | | Cash | | 920,000 |
| 3. | General | Cash | 8,000 | |
| | | Revenue | | 8,000 |
| 4. | Trust | Transfer to Special Revenue Fund | 120,000 | |
| | | Cash | | 120,000 |
| | Special Revenue | Cash | 120,000 | |
| | | Transfer from Trust Fund | | 120,000 |
| 5. | General | Cash | 40,000 | |
| | | Revenue | | 40,000 |
| 6. | Enterprise | Due from General Fund | 800 | |
| | | Revenue | | 800 |
| | General | Expenditures | 800 | |
| | | Due to Enterprise Fund | | 800 |
| 7. | Enterprise | Transfer to General Fund | 400,000 | |
| | | Cash | | 400,000 |
| | General | Cash | 400,000 | |
| | | Transfer from Enterprise Fund | | 400,000 |
| 8. | Internal Service | Cash | 400,000 | |
| | | Contributions from General Fund | | 120,000 |
| | | Due to City Park Fund | | 80,000 |
| | | Contributions from General Obligation Bonds | | 200,000 |
| | General | Transfer to Internal Service Fund | 120,000 | |
| | | Cash | | 120,000 |

**Problem 18-7 (continued)**

| | | | | |
|---|---|---|---|---|
| | Special Revenue | Due from Internal Service Fund | 80,000 | |
| | | Cash | | 80,000 |
| 9. | Internal Service | Due from General Fund | 10,000 | |
| | | Due from City Park Fund | 4,000 | |
| | | Revenue | | 14,000 |
| | General | Expenditures | 10,000 | |
| | | Due to Internal Service Fund | | 10,000 |
| | Special Revenue | Expenditures | 4,000 | |
| | | Due to Internal Service Fund | | 4,000 |
| 10. | Debt Service | Expenditures | 400,000 | |
| | | Cash | | 400,000 |
| 11. | Agency | Cash | 8,000 | |
| | | Customer Deposit Agency Fund Balance | | 8,000 |
| 12. | Debt Service | Required Additions | 60,000 | |
| | | Required Earnings | 6,000 | |
| | | Unreserved Fund Balance | | 66,000 |

**Problem 18–8**

| | | | | |
|---|---|---|---|---|
| **Part A** | 1. | Due from Water Utility Fund | 1,500 | |
| | | Accounts Receivable | | 1,500 |
| | | To reclassify receivables from water utility fund for sale of scrap | | |
| | 2a. | Taxes Receivable - Delinquent | 30,000 | |
| | | Taxes Receivable - Current Year | | 30,000 |
| | | To reclassify current taxes now considered delinquent | | |
| | 2b. | Revenues (estimated uncollectable taxes) | 24,000 | |
| | | Allowance for Uncollectible Taxes | | 24,000 |
| | | To establish an allowance account for taxes estimated to be uncollectible | | |
| | 3. | Expenditures ($40,000 + ($200,000 × 6%)) | 52,000 | |
| | | Bonds Payable | | 52,000 |
| | | To correct recording of retirement of general obligation bonds and payment of interest | | |
| | 4a. | Unreserved Fund Balance | 11, 200 | |
| | | Reserve for Encumbrances – Prior Year | | 11, 200 |
| | | To adjust fund balance at beginning of year for encumbrances relating to prior years' appropriation authority | | |
| | 4b. | Expenditures – Prior Year | 11, 200 | |
| | | Expenditures | | 11, 200 |
| | | To record purchase orders outstanding at June 30, 2007, and to charge expenditures relating there to prior years' appropriation authority | | |
| | 4c. | Encumbrances | 17, 500 | |
| | | Reserve for Encumbrances | | 17, 500 |
| | | To record encumbering of appropriations for purchase orders at June 30, 2008 | | |
| | 5. | Due from State Revenue Department | 34,000 | |
| | | Revenues | | 34,000 |
| | | To record town's portion of state tax due from state | | |
| | 6. | Expenditures | 90,000 | |
| | | General Property | 4,600 | |
| | | Revenues | | 4,600 |
| | | General Property | | 90,000 |
| | | To correct recording of sale and purchase of equipment | | |

**Problem 18–8 (continued)**

| | | | |
|---|---|---|---|
| 7. | Appropriations | 400,000 | |
| | Unreserved Fund Balance | 130,300 | |
| | Expenditures ($382,000 + $52,000 - $11,200 + $90,000) | | 512,800 |
| | Encumbrances | | 17,500 |
| | To close out expenditures accounts | | |
| 8. | Revenues ($360,000 - $24,000 + $34,000 + $4,600) | 374,600 | |
| | Estimated Revenues | | 320,000 |
| | Unreserved Fund Balance | | 54,600 |
| | To close out revenues accounts | | |
| 9. | Reserve for Encumbrances - Prior Year | 11,200 | |
| | Expenditures - Prior Year | | 11,200 |
| | To close out at June 30, 2008 | | |

**Part B** ________________________________

Adjusting Entries for Water Utility Enterprise Fund as of June 30, 2008

| | | | |
|---|---|---|---|
| 1. | Scrap Sales | 1,500 | |
| | Due to General Fund | | 1,500 |

**Problem 18-9**

| | Fund | Account Titles and Explanations | Debit | Credit |
|---|---|---|---|---|
| 1. | General Fund | Estimated Revenues | 400,000 | |
| | | Appropriations | | 394,000 |
| | | Unreserved Fund Balance | | 6,000 |
| | | To record budget | | |
| 2. | General Fund | Property Tax Receivable – Current | 390,000 | |
| | | Revenue | | 382,200 |
| | | Estimated Uncollectible Taxes (2%) | | 7,800 |
| | | To record tax levy | | |
| 3a. | Permanent Fund | Investments | 50,000 | |
| | | Fund Principal Balance | | 50,000 |
| | | To record value of securities donated in trust | | |
| 3b. | Permanent Fund | Cash | 5,500 | |
| | | Revenues (Fund Balance) | | 5,500 |
| | | Transfer to Special Revenue Fund | 5,500 | |
| | | Cash | | 5,500 |
| | | To record income earned and transfer to special revenue fund. | | |
| 3c. | Special Revenue Fund | Cash | 5,500 | |
| | | Transfer from Permanent Fund | | 5,500 |
| | | To record the transfer. | | |
| 4a. | General Fund | Transfer to Internal Service Fund | 5,000 | |
| | | Cash | | 5,000 |
| | | To record establishment of Internal Service Fund | | |
| 4b. | Internal Service Fund | Cash | 5,000 | |
| | | Contribution from General Fund | | 5,000 |
| 5. | Internal Service Fund | Inventory | 1,900 | |
| | | Cash or Vouchers Payable | | 1,900 |
| | | To record purchase of supplies | | |
| 6a. | General Fund | Cash | 393,000 | |
| | | Property Tax Receivable - Current | | 386,000 |
| | | Revenue | | 7,000 |
| | | To record collections | | |

**Problem 18–9 (continued)**

| | Fund | Account Titles and Explanations | Debit | Credit |
|---|---|---|---|---|
| 6b. | General Fund | Estimated Uncollectible Taxes | 3,800 | |
| | | Taxes Revenues | | 3,800 |
| | | To correct tax revenues ($386,000 - $382,200) | | |
| 7. | Capital Projects Fund | Cash | 500,000 | |
| | | Bond Issue Proceeds | | 500,000 |
| | | To record issuance of bonds | | |
| 8a. | General Fund | Reserve for Encumbrances | 150, 000 | |
| | | Encumbrances | | 150,000 |
| | | To record cancellation of encumbrances upon payment for fire truck | | |
| 8b. | General Fund | Expenditures | 150,000 | |
| | | Vouchers Payable | | 150,000 |
| | | To record purchase of fire truck | | |
| 8c. | General Fund | Vouchers Payable | 150,000 | |
| | | Cash | | 150,000 |
| | | To record payment of vouchers | | |

Part B

| | | | |
|---|---|---|---|
| 7 | Cash | 500,000 | |
| | Bond Payable | | 500,000 |
| 8. | Capital Asset (truck) | 150,000 | |
| | Cash | | 150,000 |

**Problem 18–10**

| | Fund | | Account Titles and Explanations | Debit | Credit |
|---|---|---|---|---|---|
| 1. | G | | Estimated Revenues | 695,000 | |
| | | | Appropriations | | 650,000 |
| | | | Unreserved Fund Balance | | 45,000 |
| | | | To record adoption of the budget | | |
| 2. | SR | | Taxes Receivable – Current | 160,000 | |
| | | | Estimated Uncollectible Current Taxes | | 1,600 |
| | | | Revenue | | 158,400 |
| | | | To record levy of taxes in special revenue fund | | |
| 3. | G | a) | Encumbrances | 2,390 | |
| | | | Reserve for Encumbrances | | 2,390 |
| | | | To record encumbrances for purchase Orders | | |
| | G | b) | Reserve for Encumbrances | 2,390 | |
| | | | Encumbrances | | 2,390 |
| | | | To record cancellation of encumbrances upon receipt of supplies | | |
| | G | | Expenditures | 2,500 | |
| | | | Vouchers Payable | | 2,500 |
| | | | To record actual expenditures on supplies encumbered for $2,390 | | |
| 4. | G | | Due to Utility Fund | 1,000 | |
| | | | Expenditures | 40 | |
| | | | Cash | | 1,040 |
| | | | To record disbursement to liquidate a loan from the utility fund | | |
| | E | | Cash | 1,040 | |
| | | | Revenue | | 40 |
| | | | Due from General Fund | | 1,000 |
| | | | To record receipt to liquidate a loan to the general fund | | |

**Problem 18–10 (continued)**

| | Fund | | Account Titles and Explanations | Debit | Credit |
|---|---|---|---|---|---|
| 5. | GFA | | Land | 85,000 | |
| | | | Investment in General Fixed Assets – Donations | | 85,000 |
| | | | To record land donated to city | | |
| 6. | CP | | Cash | 90,000 | |
| | | | Contributions from Property Owners | | 90,000 |
| | | | To record issuance of bond for curbing project | | |
| | CP | b) | Expenditures | 84, 000 | |
| | | | Vouchers Payable | | 84,000 |
| | | | To record encumbrances | | |
| | CP | | Contributions from Property Owners | 90,000 | |
| | | | Expenditures | | 84,000 |
| | | | Unreserved Fund Balance | | 6,000 |
| | | | To close nominal accounts | | |
| 7. | PSR | a) | Investments | 22,000 | |
| | | | Endowment Fund Principal Balance | | 22,000 |
| | | | To record the value of stock donated in trust | | |
| | PSR | b) | Cash | 1,100 | |
| | | | Revenue | | 1,100 |
| | | | To record dividend revenue in endowment revenues fund | | |

**Problem 18–10 (continued)**

| | Fund | | Account Titles and Explanations | Debit | Credit |
|---|---|---|---|---|---|
| 8. | CP | a) | Cash | 308,000 | |
| | | | Bond Issue Proceeds | | 308,000 |
| | | | To record issuance of bonds to finance construction of a city Hall addition | | |
| | CP | | Transfer to Debt Service Fund | 8,000 | |
| | | | Cash | | 8,000 |
| | | | To record transfer of bond premium to debt service fund | | |
| | DS | | Cash | 8,000 | |
| | | | Transfer from Capital Projects Fund | | 8,000 |
| | | | To record transfer of bond premium from capital projects fund | | |
| | CP | b) | Expenditures | 297,000 | |
| | | | Cash | | 297,000 |
| | | | To record expenditures for construction of City Hall addition | | |
| | CP | | Bond Issue Proceeds | 308,000 | |
| | | | Unreserved Fund Balance | | 3,000 |
| | | | Expenditures | | 297,000 |
| | | | Transfer to Debt Service Fund | | 8,000 |
| | | | To close the revenues, expenditures and transfer accounts to unreserved fund balance | | |

| Fund | Account Titles and Explanations | Debit | Credit |
|---|---|---|---|
| CP | Transfer to Debt Service Fund | 3,000 | |
| | Cash | | 3,000 |
| | To record transfer of remaining cash to debt service fund | | |
| CP | Unreserved Fund Balance | 3,000 | |
| | Transfer to Debt Service Fund | | 3,000 |
| | To close out capital projects fund | | |
| DS | Cash | 3,000 | |
| | Transfer from Capital Projects Fund | | 3,000 |
| | To record transfer from capital projects fund | | |

## Problem 18–11

**Part A** Journal Entries

| | | | |
|---|---|---|---|
| 1. | No entry | | |
| 2. | Cash | 80,000 | |
| | Due to the General Fund | | 80,000 |
| | Deposit on Land Contract | 80,000 | |
| | Cash | | 80,000 |
| 3. | Cash | 918,000 | |
| | Bond Issue Proceeds ($900,000)(1.02) | | 918,000 |
| | Transfer to Debt Service Fund | 18,000 | |
| | Cash | | 18,000 |
| 4. | Encumbrances | 780,000 | |
| | Reserve for Encumbrances | | 780,000 |
| 5. | Due to General Fund | 80,000 | |
| | Cash | | 80,000 |
| | Expenditures | 120,000 | |
| | Deposit on Land Contract | | 80,000 |
| | Cash | | 40,000 |
| 6. | Expenditures | 640,000 | |
| | Vouchers Payable | | 640,000 |
| | Reserve for Encumbrances | 640,000 | |
| | Encumbrances | | 640,000 |
| 7. | Vouchers Payable | 620,000 | |
| | Cash | | 620,000 |
| 8. | Encumbrances ($880,000 - $780,000) | 100,000 | |
| | Reserve for Encumbrances | | 100,000 |
| | Cash | 101,000 | |
| | Bond Issue Proceeds | | 101,000 |
| | Transfer to Debt Service Fund | 1,000 | |
| | Cash | | 1,000 |

**Problem 18–11 (continued)**

| | | | |
|---|---|---|---|
| 9. | Expenditures | 230,000 | |
| | Vouchers Payable | | 230,000 |
| | | | |
| | Reserve for Encumbrances ($780,000 + $100,000 - $640,000) | 240,000 | |
| | Encumbrances | | 240,000 |
| | | | |
| | Vouchers Payable ($640,000 - $620,000 + $230,000) | 250,000 | |
| | Cash | | 250,000 |

### CITY OF MINDEN
### Capital Projects Fund
### Pre-Closing Trial Balance
### December 31, 2009

**Part B**

| | Debit | Credit |
|---|---|---|
| Cash | $ 10,000 | |
| Expenditures | 990,000 | |
| Transfer to Debt Service Fund | 19,000 | |
| Bond Issue Proceeds | | $1,019,000 |
| Total | $1,019,000 | $1,019,000 |

**Part C** Closing Entries

| | | |
|---|---|---|
| Bond Issue Proceeds | 1,019,000 | |
| Transfer to Debt Service Fund | | 19,000 |
| Expenditures | | 990,000 |
| Unreserved Fund Balance | | 10,000 |
| | | |
| Transfer to Debt Service Fund | 10,000 | |
| Cash | | 10,000 |
| | | |
| Unreserved Fund Balance | 10,000 | |
| Transfer to Debt Service Fund | | 10,000 |

**Problem 18–11 (continued)**

**Part D**

## CITY OF MINDEN
## Capital Projects Fund
## Statement of Revenues, Expenditures and Changes in Fund Balance
## For the Year Ended December 31, 2009

| | |
|---|---|
| Revenue | $ 0 |
| Bond Issue Proceeds | 1,019,000 |
| Total | 1,019,000 |
| Expenditures | 990,000 |
| Transfer to Debt Service Fund | 19,000 |
| Total | 1,009,000 |
| Excess to Fund Balance | 10,000 |
| Balance – January 1 | 0 |
| Less Residual Equity Transfer to Debt Service Fund | (10,000) |
| Balance – December 31 | $0 |

Pre – Closing Trial Balances of Related Funds

| | Debit | Credit |
|---|---|---|
| Debt Service Fund | | |
| Cash | $ 29,000 | |
| Transfer from Capital Projects Fund (operating) ($18,000 + $1,000) | | $ 19,000 |
| Transfer from Capital Projects Fund (residual equity) | | 10,000 |
| Total | $ 29,000 | $ 29,000 |

**Problem 18-12**

| | | Assets | % of | % of | Liabilities | | | Revenues | | | Expenditures | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | **Government fund** | | Gov. | Total | | | | | | | | | |
| 1 | General Fund | 9,408 | **18%** | **15%** | 7,753 | **46%** | **35%** | 86,022 | **88%** | **78%** | 88,717 | **73%** | **68%** |
| 2 | HUD Programs | 7,504 | **15%** | **12%** | 6,428 | **38%** | **29%** | 2,731 | 3% | 2% | 2,954 | 2% | 2% |
| 3 | Community Development | 13,616 | **26%** | **21%** | 440 | 3% | 2% | 549 | 1% | 0% | 2,664 | 2% | 2% |
| 4 | Route 7 Construction | 10,478 | **20%** | **16%** | 1,115 | 7% | 5% | 273 | 0% | 0% | 11,298 | 9% | **9%** |
| 5 | Impact Fees | 371 | 1% | 1% | 61 | 0% | 0% | 35 | 0% | 0% | 755 | 1% | 1% |
| 6 | Local Gas Tax | 2,139 | 4% | 3% | 170 | 1% | 1% | 1,436 | 1% | 1% | 2,971 | 2% | 2% |
| 7 | Historic District | 194 | 0% | 0% | 4 | 0% | 0% | 60 | 0% | 0% | 47 | 0% | 0% |
| 8 | Central City Development | 1,618 | 3% | 3% | 151 | 1% | 1% | 4,783 | 5% | 4% | 6,804 | 6% | **5%** |
| 9 | Community Redevelopment | 2,365 | 5% | 4% | - | 0% | 0% | 42 | 0% | 0% | 1,872 | 2% | 1% |
| 10 | Culvert Project | | 0% | 0% | | 0% | 0% | 1,471 | 2% | 1% | 1,974 | 2% | 2% |
| 11 | Bridge | 2,602 | 5% | 4% | 686 | 4% | 3% | 3 | 0% | 0% | 1,270 | 1% | 1% |
| 12 | Cemetery Fund | 1,405 | 3% | 2% | - | 0% | 0% | 72 | 0% | 0% | - | 0% | 0% |
| | | 51,700 | | | 16,808 | | | 97,477 | | | 121,326 | | |
| | 10% of total government funds | 5,170 | | | 1,681 | | | 9,748 | | | 12,133 | | |
| | **Proprietary funds** | | | | | | | | | | | | |
| 13 | Water and Sewer | 12,149 | **97%** | **19%** | 4,679 | **87%** | **21%** | 11,329 | **89%** | **10%** | 6,907 | **81%** | **5%** |
| 14 | Parking Facilities | 372 | 3% | 1% | 672 | 13% | 3% | 1,344 | 11% | 1% | 1,582 | 19% | 1% |
| | | 12,521 | | | 5,351 | | | 12,673 | | | 8,489 | | |
| | 10% of total Proprietary funds | 1,252 | | | 535 | | | 1,267 | | | 849 | | |
| | Total government and prop. | 64,221 | | | 22,159 | | | 110,150 | | | 129,815 | | |
| | 5% of total | 3,211 | | | 1,108 | | | 5,508 | | | 6,491 | | |

Major funds always include the general fund. Also, the following funds are considered major: HUD Programs, Community Development, Route 7 Construction, and Water and Sewer. These are major funds because they are 10% of the total for the class of fund (either governmental or proprietary) and 5% of the total of both governmental and proprietary. (Internal service funds are not included.) These funds are denoted in bold in the table.

**Problem 18-13**

Circus City
Statement of Activites -Government-Wide
For the Year Ended December 31, 2008

| | | Program Revenues | | Net (Expense) Revenue and Changes in Net Assets |
|---|---|---|---|---|
| | | | | Primary Government |
| Functions/Programs | Expenses (a) | Charges for Services | Grants and Contributions | Governmental Activities |
| **Primary Government** | | | | |
| *Governmental Activities* | | | | |
| Public Safety | $ 555,000 | | | $ (555,000) |
| General Government | 372,000 | $180,000 (b) | $1,000,000 | 808,000 |
| Highways and Streets | 155,000 | 100,000 (b) | 250,000 | 195,000 |
| Sanitation | 87,000 | | | (87,000) |
| Interest on long-term debt | 175,422 (c) | | | (175,422) |
| Total governmental activities | 1,344,422 | 280,000 | 1,250,000 | 185,578 |
| **Total primary government** | $ 1,344,422 | $ 280,000 | $ 1,250,000 | $ 185,578 |

| | |
|---|---|
| **General Revenues** | |
| Property taxes | $ 575,000 |
| Investment earnings | 75,000 |
| Special item - gain on sale of equipment | 30,000 |
| Total general revenues, special items, and transfers | $ 680,000 |
| Change in net assets | 865,578 |
| Net assets – beginning | 2,686,283 |
| Net assets - ending | $ 3,551,861 |

(a) Depreciation expense has been added to each governmental activity.
(b) Licenses and permits are charged $100,000 to highways and streets and $50,000 to general government.
(c) The debt amortization schedule is as follows (next page):

**Problem 18-13 (continued)**

| | Interest expense | Cash paid | Discount | Carrying Value |
|---|---|---|---|---|
| Beginning balance | | | | $1,754,217 |
| 12/31/04 | 175,422 | 160,000 | 15,422 | $1,769,639 |
| 12/31/05 | 176,964 | 160,000 | 16,964 | $1,786,603 |
| 12/31/06 | 178,660 | 160,000 | 18,660 | $1,805,263 |
| 12/31/07 | 180,526 | 160,000 | 20,526 | $1,825,790 |
| 12/31/08 | 182,579 | 160,000 | 22,579 | $1,848,369 |
| 12/31/09 | 184,837 | 160,000 | 24,837 | $1,873,205 |
| 12/31/10 | 187,321 | 160,000 | 27,321 | $1,900,526 |
| 12/31/11 | 190,053 | 160,000 | 30,053 | $1,930,579 |
| 12/31/12 | 193,058 | 160,000 | 33,058 | $1,963,637 |
| 12/31/13 | 196,363 | 160,000 | 36,363 | $2,000,000 |

Circus City
Statement of Net Assets - Government-Wide Basis
At December 31, 2008

| | Governmental Funds | Adjustments | Statement of Net Assets Total Government Activities |
|---|---|---|---|
| Assets | | | |
| Cash | $ 364,000 | | $ 364,000 |
| Interest Receivable | 16,000 | | 16,000 |
| Investments | 1,450,500 | | 1,450,500 |
| Receivables | 183,000 | | 183,000 |
| Capital Assets (net) | | 3,431,000 | 3,431,000 |
| Total Assets | 2,013,500 | | $ 5,444,500 |
| Liabilities and Fund Balance | | | |
| Payables | $ 123,000 | | $ 123,000 |
| Long-term Liabilities | | 1,769,639 | 1,769,639 |
| Total Liabilities | $ 123,000 | | $1,892,639 |
| Net Assets | | | |
| Invested in Capital Assets, net of related debt | | | $ 1,661,361 |
| Unrestricted | $ 1,786,500 | | 1,786,500 |
| Restricted for | | | |
| Debt Service | 104,000 | | 104,000 |
| Total Fund Balance | 1,890,500 | | 3,551,861 |
| Total | $ 2,013,500 | | $ 5,444,500 |

**Problem 18-13 (continued)**

Reconciling the Statement of Net Assets with Governmental Fund Reporting

| | |
|---|---|
| Fund balance for governmental activities | **$ 1,890,500** |
| Capital assets used in governmental activities are not financial resources and are not reported in the funds | 3,431,000 |
| Long-term liabilities are not due and payable in the current period and therefore are not reported in the funds. | (1,769,639) |
| Net Assets in governmental activities | **$ 3,551,861** |

Circus City
Reconciliation of the Statement of Revenues,
Expenditures, and Changes in Fund Balances of Governmental
Funds to the Statement of Activities
For the Year Ended December 31, 2008

| | |
|---|---|
| Net change in fund balances - total governmental funds | $ 1,389,217 |
| Governmental funds report capital outlays as expenditures while governmental activities report depreciation expense to allocate those expenditures over the life of the asset. This is the amount by which capital outlays exceeded depreciation in the current period. | 1,331,000 |
| In the statement of activities, only the gain on the sale of equipment is reported, while in the governmental funds, the proceeds from the sale increase financial resources. Thus, the change in net assets differs from the change in fund balance by the book value of the asset sold. | (85,000) |
| Bond proceeds provide current financial resources to governmental funds, but issuing debt increases long-term liabilities in the statement of net assets. | (1,754,217) |
| Interest expense recognized on the accrual basis exceeds the amounts paid by the amortization of the bond discount | (15,422) |
| Change in Net Assets of Governmental Activities | **$ 865,578** |

## Problem 18-14

### Part A

Schedule of General Long-Term Obligations
December 31, 2008 and December 31, 2007

| | Beginning Balance | Additions* | Reductions** | Ending Balance | Amounts Due Within One Year |
|---|---|---|---|---|---|
| **Governmental Activities** | | | | | |
| 10-year Bonds issued in 2000 | $ 10,367 | $ | $ 178 | $ 10,189 | $ 10,189 |
| 10-year Bonds issued in 2008 | | 8,810 | | 8,810 | - |
| Governmental Activities Long-term liabilities | $ 10,367 | $ 8,810 | $ 178 | $ 18,999 | $ 10,189 |

* includes premium amortization
** includes discount amortization

| | Interest Expense | Cash paid | Premium | Carrying Value |
|---|---|---|---|---|
| Beginning balance | | | | $11,472 |
| 12/31/00 | 688 | 800 | 112 | $11,360 |
| 12/31/01 | 682 | 800 | 118 | $11,242 |
| 12/31/02 | 675 | 800 | 125 | $11,117 |
| 12/31/03 | 667 | 800 | 133 | $10,984 |
| 12/31/04 | 659 | 800 | 141 | $10,843 |
| 12/31/05 | 651 | 800 | 149 | $10,694 |
| 12/31/06 | 642 | 800 | 158 | $10,536 |
| 12/31/07 | 632 | 800 | 168 | $10,368 |
| 12/31/08 | 622 | 800 | 178 | $10,190 |
| 12/31/09 | 610 | 800 | 190 | $10,000 |

Adjusting entry at December 31, 2008

| | | |
|---|---|---|
| Interest expense | 439 | |
| Discount | | 39 |
| Interest Payable | | 400 |

| | Interest Expense | Cash paid | Discount | Carrying Value at 6/30 | Carrying Value at 12/31 |
|---|---|---|---|---|---|
| 6/30/08 | | | | $8,771 | $8,810 |
| 6/30/09 | 877 | 800 | 77 | $8,848 | $8,891 |
| 6/30/10 | 885 | 800 | 85 | $8,933 | $8,980 |
| 6/30/11 | 893 | 800 | 93 | $9,026 | $9,078 |
| 6/30/12 | 903 | 800 | 103 | $9,129 | $9,186 |
| 6/30/13 | 913 | 800 | 113 | $9,242 | $9,305 |
| 6/30/14 | 924 | 800 | 124 | $9,366 | $9,435 |
| 6/30/15 | 937 | 800 | 137 | $9,503 | $9,579 |
| 6/30/16 | 950 | 800 | 150 | $9,653 | $9,736 |
| 6/30/17 | 965 | 800 | 165 | $9,818 | $9,909 |
| 6/30/18 | 982 | 800 | 182 | $10,000 | |

**Problem 18-14 (continued)**

**Part B and C**

**GOVERNMENT-WIDE**

**Statement of Net Assets**

At December 31, 2008

| | |
|---|---|
| Bond Payable (issued 2000) | $ 10,190 |
| Bond Payable (issued 2008) | 8,810 |
| Interest Payable | 400 |

**Statement of Activities**

For the Year Ending 12/31/08

| | | |
|---|---|---|
| Interest expense- 2000 bond | | 622 |
| Interest expense- 2008 bond | (.5)(877) = | 439 |

**Part D and E**

**GOVERNMENT FUNDS**

**Balance Sheet**

At December 31, 2008

None reported

**Statement of Revenues, Expenditures, and Changes in Fund Balance**

For the Year Ending 12/31/08

| | |
|---|---|
| Bond proceeds | 8,771 |
| Interest paid - 2000 bond | 800 |
| Interest paid - 2008 bond | - 0 - |

# CHAPTER 19

**Note: The letter A, B, or C indicated for a question, exercise, or problem means that the question, exercise, or problem relates to a chapter appendix.**

## ANSWERS TO QUESTIONS

1. In 1979, the FASB took the responsibility for establishing financial accounting and reporting standards for NNOs. Support for existing accounting and reporting practices is also contained in Audit Guides and Statements of Position published by the AICPA.

2. NNOs use fund accounting because in many cases their resources are restricted by law, contract, donors, other external authorities, or the organization's governing board. Fund accounting facilitates compliance with such restrictions.

3. NNOs need to distinguish between restricted and unrestricted funds in order to separate resources that may be used at the discretion of the governing board and those which have restrictions. Resources not found in the unrestricted funds have contractual, external, legal, or discretionary restrictions.

4. Unlike other NNOs, hospitals combine their revenues from unrestricted resources and restricted resources in the General Fund accounts and financial statements. In addition, hospitals account for property and equipment, accumulated depreciation and depreciation expense, and long-term obligations associated with the acquisition of property and equipment in the General Fund whereas other NNOS account for these assets and liabilities in Plant Funds.

5. Unconditional pledges are recorded as revenues while conditional pledges are not recorded until they become unconditional. An example of unconditional pledges is when a donor makes a nonrevocable offer to give one million dollars to a hospital. An example of conditional pledges is when a donor offers to contribute one million dollars if the hospital receives less than ten million dollars from government funding in the next fiscal year.

6. Nonmandatory transfers are transfers by Colleges and Universities of Board Designated Funds from the resources of the Unrestricted Current Fund to Quasi-Endowment, Loan, Plant or other funds maintained by the College or University.

7. Yes, board designated funds should be accounted for in the Unrestricted Current Fund (General Fund of a hospital). The procedure for formal recognition of such designations in the Unrestricted Current Fund by NNO's other than hospitals is similar to an appropriation of retained earnings. Hospitals classify resources that have been designated by the board for a specific use in a separate section of the Statement of Financial Position of the General Fund entitled Assets Whose Use is Limited.

8. Prior to the effective date of SFAS No. 116, donated services were recorded under different circumstances for each of the NNOs.

   The necessary conditions to be met for each NNO were

   Colleges:

   When operated by a religious group, donated services rendered by members of the religious group should be recorded at their monetary values.

   Hospitals:

   (1) The organization controls the employment and duties of the persons donating the service and

   (2) The organization has a clearly measurable basis for determining the amount of revenue and expenses to be recorded.

   VHWOs:

   (1) and (2) from above and

   (3) The services performed are significant and form an integral part of the efforts of the organization and the services would be performed by salaried personnel if the donated services were not available.

   ONNOs:

   (1), (2), (3), from above and

   (4) The services of the reporting organization are not principally intended for the benefit of its members.

   Under the provisions of SFAS NO. 116, donated services are recognized by all NNOs only if the services received (a) create or enhance nonfinancial assets or (b) require professional skills, are provided by individuals possessing those skills, and typically would need to be purchased if not provided by donation. The provisions of SFAS 116 are effective for financial statements issued by larger NNOs for years *beginning* after December 15, 1994. Thus, in terms of annual financial statements, these changes will appear in financial statements distributed beginning in 1996 by larger NNOs and in 1997 by smaller NNOs.

9. Voluntary services rendered for fund raising campaigns are usually not recognized in the accounting records because of the difficulty of measuring a market value for them and because it is extremely difficult for the organization to implement effective controls over the performance of volunteer solicitors.

10. The revenue is recorded at the standard rate and any waivers or discounts are reported separately as expenditures or as reductions of gross revenue.

11. Library books owned by a university are accounted for in the Plant Fund. Depreciation expense should be recorded in the investment in plant fund. Note, prior to the issuance of SFAS No. 97 by the FASB, colleges and universities were not required to record depreciation expense.

12. Medical equipment and long-term obligations are accounted for in the General Fund of a hospital. VHWOS would use a Plant Fund to account for such equipment and the related obligation.

13. ONNOs need not record depreciation on historical treasures and works of art that have estimated useful lives that are extraordinarily long. To qualify, such assets must have cultural, historical or aesthetic value that is worth preserving perpetually and the holder must have the financial and technological ability to protect and preserve the asset.

14. (1) Pure Endowment Fund - the principal is donated and must be maintained in perpetuity.
    (2) Term Endowment Fund - the donor specifies a particular date or event after which the principal may be expended.
    (3) Quasi-Endowment Fund - board designated resources that are transferred from the Unrestricted Current Fund by a college or university. Maintenance or expenditure of the principal is at the discretion of the governing board.

15. The difference between an Annuity Fund and a Life Income Fund is that under an Annuity Fund, the beneficiary receives periodic payments of a stated amount while the beneficiary of a Life Income Fund receives periodic payments of varying amounts (depending on the fund's earnings).

**Business Ethics**

Business ethics solutions are merely suggestions of points to address. The objective is to raise the students' awareness of the topics, and to invite discussion. In most cases, there is clear room for disagreement or conflicting viewpoints.

An important aspect of the job of a president of a university is fund raising and maintaining the visibility of the university. University presidents are hired because of the skills needed to accomplish this goal. The president should be allowed some flexibility in choosing the strategies to implement in pursuing this objective. This, however, does not mean that the president has unlimited spending authority. Without proper oversight, inappropriate spending could go unchecked. Clearly, procedures need to be developed to oversee the spending of the president. This can be accomplished through the board of trusts of the university. Encourage students to discuss whether Gordon Gee was, or was not within acceptable limits in the instance cited in the article.

## ANSWERS TO EXERCISES

### Exercise 19–1

**Part A** Current Unrestricted Fund

**Part B** Unexpended Plant Fund

### Exercise 19–2

General Fund

| | | |
|---|---|---|
| General Services Expense | 5,500 | |
| Donated Services (Nonoperating Revenue) | | 5,500 |

### Exercise 19–3

Restricted Current Fund

| | | |
|---|---|---|
| Cash | 300,000 | |
| Contribution Revenue – Poetry Collection | | 300,000 |
| | | |
| Net Assets Released from Restrictions | 100,000 | |
| Cash | | 100,000 |

Unrestricted Current Fund

| | | |
|---|---|---|
| Cash | 100,000 | |
| Net Assets Released from Restrictions | | 100,000 |
| | | |
| Expenses – Poetry Collection | 100,000 | |
| Cash | | 100,000 |

### Exercise 19–4

Loan Fund

| | | |
|---|---|---|
| (1) Cash | 100,000 | |
| Revenue – Contributions Restricted | | 100,000 |
| | | |
| (2) Loans Receivable – Students | 60,000 | |
| Loans Receivable – Faculty | 40,000 | |
| Cash | | 100,000 |
| | | |
| Bad Debt Expense | 10,000 | |
| Allowance for Uncollectible Loans – Students | | 6,000 |
| Allowance for Uncollectible Loans – Faculty | | 4,000 |
| | | |
| (3) Allowance for Uncollectible Loans – Students | 1,000 | |
| Loans Receivable – Students | | 1,000 |

**Exercise 19-4 (continued)**

| | | |
|---|---|---|
| (4) Cash | 16,300 | |
| Loans Receivable – Students | | 10,000 |
| Loans Receivable – Faculty | | 5,000 |
| Interest Income | | 1,300 |

**Exercise 19–5**

| | Proportional Interest | Interest and Dividends | Realized Gains |
|---|---|---|---|
| Restricted Fund (105/420) | 25% | $ 7,500 | $ 5,000 |
| Quasi-Endowment (147/420) | 35% | 10,500 | 7,000 |
| Life Income (168/420) | 40% | 12,000 | 8,000 |
| Total | 100% | $ 30,000 | $ 20,000 |

Loan Fund

| | | |
|---|---|---|
| Cash | 7,500 | |
| Investments | 5,000 | |
| Investment Income | | 12,500 |

Quasi-Endowment Fund

| | | |
|---|---|---|
| Cash | 10,500 | |
| Investments | 7,000 | |
| Investment Income | | 17,500 |

Life Income Fund

| | | |
|---|---|---|
| Cash | 12,000 | |
| Investments | 8,000 | |
| Investment Income | | 20,000 |

**Exercise 19–6**

**2008** Current Unrestricted Fund

| | | | |
|---|---|---|---|
| | (1) Pledges Receivable | 1,000,000 | |
| | Revenue - Contributions | | 1,000,000 |
| | (2) Expense - Provision for Uncollectible Pledges | 250,000 | |
| | Allowance for Uncollectible Pledges | | 250,000 |
| **2009** | (3) Cash | 700,000 | |
| | Pledges Receivable | | 700,000 |
| | (4) Provision for Uncollectible Pledges | 50,000 | |
| | Allowance for Uncollectible Pledges | 250,000 | |
| | Pledges Receivable | | 300,000 |

## Exercise 19–7

Endowment Fund

| | | | |
|---|---|---|---|
| (1) | Cash | 2,000,000 | |
| | Revenue Contribution - Restricted | | 2,000,000 |
| (2) | Investments | 2,000,000 | |
| | Cash | | 2,000,000 |
| (3) | Cash | 400,000 | |
| | Due to General Fund | | 300,000 |
| | Due to Specific Purpose Fund | | 100,000 |
| (4) | Due to General Fund | 300,000 | |
| | Due to Specific Purpose Fund | 100,000 | |
| | Cash | | 400,000 |
| (8) | Transfer to Plant Replacement and Expansion Fund | 2,000,000 | |
| | Cash | | 2,000,000 |

General Fund

| | | | |
|---|---|---|---|
| (3) | Due from Endowment Fund | 300,000 | |
| | Unrestricted Income from Endowment Fund | | 300,000 |
| (4) | Cash | 300,000 | |
| | Due from Endowment Fund | | 300,000 |
| (5) | Other Professional Services - Research | 80,000 | |
| | Other Operating Revenue | | 80,000 |
| (6) | Assets Whose Use is Limited | 80,000 | |
| | Cash | | 80,000 |
| (7) | Loans Receivable | 180,000 | |
| | Cash | | 180,000 |

Specific Purpose Fund

| | | | |
|---|---|---|---|
| (3) | Due from Endowment Fund | 100,000 | |
| | Fund Balance | | 100,000 |
| (4) | Cash | 100,000 | |
| | Due from Endowment Fund | | 100,000 |
| | Fund Balance | 80,000 | |
| | Cash | | 80,000 |

Plant Replacement and Expansion Fund

| | | | |
|---|---|---|---|
| (8) | Cash | 2,000,000 | |
| | Transfer from Endowment Fund - Restricted | | 2,000,000 |

Endowment Fund

| | | | |
|---|---|---|---|
| (1) | Fund Balance – Term | 2,000,000 | |
| | Cash | | 2,000,000 |

**Exercise 19–8**

Endowment Fund

| | | | |
|---|---|---|---|
| (1) | Endowment fund balance | 3,000,000 | |
| | Cash | | 3,000,000 |

Unexpended Plant Fund

| | | | |
|---|---|---|---|
| (1) | Cash | 3,000,000 | |
| | Fund Balance - Restricted | | 3,000,000 |
| (2) | Construction in Process | 1,000,000 | |
| | Cash | | 970,000 |
| | Accounts Payable | | 30,000 |
| (3) | Construction in Process | 2,100,000 | |
| | Accounts Payable | 30,000 | |
| | Cash | | 2,130,000 |
| | Building | 3,100,000 | |
| | Work in Process | | 3,100,000 |
| (4) | Fund Balance - Restricted | 3,000,000 | |
| | Fund Balance - Unrestricted | 100,000 | |
| | Building | | 3,100,000 |

Investment in Plant Fund

| | | | |
|---|---|---|---|
| (4) | Building | 3,100,000 | |
| | Net Investment in Plant | | 3,100,000 |

**Exercise 19-9**

1. b
2. a
3. c
4. d
5. C

**Exercise 19-10**

1. d
2. c
3. a
4. c
5. C

**Exercise 19-11**

1. d
2. c
3. a
4. c

**Exercise 19-12**

1. d
2. b
3. b
4. c
5. A

**Exercise 19-13**

1. b
2. b
3. c
4. c

**Exercise 19-14**

1. a
2. d
3. d
4. d

## ANSWERS TO PROBLEMS

### Problem 19–1

### Statement of Activities

| | | |
|---|---|---|
| Patient Service Revenue | | $16,000,000 |
| Allowances and Uncollectible Accounts | | (3,400,000) |
| Net Patient Service Revenue | | 12,600,000 |
| Other Operating Revenue (includes $160,000 from specific purpose funds) | | 346,000 |
| Total Operating Revenue | | 12,946,000 |
| | | |
| Operating Expenses (includes depreciation of $500,000) | | 13,370,000 |
| Loss from Operations | | (424,000) |
| Nonoperating Revenue: | | |
| Unrestricted Gifts and Requests | 410,000 | |
| Unrestricted Income from Endowment Funds | 160,000 | |
| Income from Board-Designated Funds | 82,000 | |
| Total Nonoperating Revenue | | 652,000 |
| Excess of Revenue over Expenses | | $228,000 |

**Problem 19–2**

| | Trial Balance | | Adjustments | | General Fund | | Endowment Fund | | Plant Replacement Fund | |
|---|---|---|---|---|---|---|---|---|---|---|
| Account Description | Debit | Credit | Debit | Credit | Debit | Credit | Debit | Credit | Debit | Credit |
| Cash | $50,000 | | | | $50,000 | | | | | |
| Investment in U.S. Treasury Bills | 105,000 | | | | | | $105,000 | | | |
| Investment in Common Stock | 417,000 | | | | | | | | $ 417,000 | |
| Interest Receivable | 4,000 | | | | 4,000 | | | | | |
| Accounts Receivable | 40,000 | | | | 40,000 | | | | | |
| Inventory | 25,000 | | | | 25,000 | | | | | |
| Land | 407,000 | | | (2)$385,000 | 22,000 | | | | | |
| Building | 245,000 | | (3)$100,000 | | 345,000 | | | | | |
| Equipment | 283,000 | | | | 283,000 | | | | | |
| Allowance for Depreciation | | 376,000 | | (4) $62,000 | | $438,000 | | | | |
| Accounts Payable | | 70,000 | | | | 70,000 | | | | |
| Bank Loan | | 150,000 | | | | 150,000 | | | | |
| Endowment Fund Balance | | 119,500 | (1) 14,500 | | | | | $105,000 | | |
| Other Fund Balances | | 860,500 | (2) 385,000 | (1) 14,500 | | | | | | |
| | | | (4) 62,000 | (3) 100,000 | | | | | | |
| | | | (5) 528,000 | | | | | | | |
| Plant Replacement Fund Balance | | | | (5) 417,000 | | | | | | $417,000 |
| General Fund Balance | | | | (5) 111,000 | | 111,000 | | | | |
| Totals | $1,576,000 | $1,576,000 | $1,089,500 | $1,089,500 | $769,000 | $769,000 | $105,000 | $105,000 | $417,000 | $417,000 |

**Problem 19–2 (continued)**

Adjusting Entries (not required)

| | | | |
|---|---|---|---|
| (1) | Endowment Fund Balance | 14,500 | |
| | Other Fund Balances | | 14,500 |
| | To eliminate from the Endowment Fund Balance the investment income earned on U.S. Treasury Bills | | |
| (2) | Other Fund Balance | 385,000 | |
| | Land | | 385,000 |
| | To eliminate from the land account the $380,000 appraisal increase and the $5,000 cost of the old building which was demolished. | | |
| (3) | Building | 100,000 | |
| | Other Fund Balance | | 100,000 |
| | To eliminate the appraisal decrease and restate the hospital building at its actual cost. | | |
| (4) | Other Fund Balances | 62,000 | |
| | Allowance for Depreciation | | 62,000 |
| | To correct the allowance for depreciation through December 31, 2008 in accordance with the following computation: | | |

| | |
|---|---|
| Building - $300,000 at 2% times 41 years | $246,000 |
| Elevator - $45,000 at 5% times 15 years | 33,750 |
| Equipment – ascertained to be accurate | 158,250 |
| Total accumulated depreciation, as computed | 438,000 |
| Less accumulated depreciation per books | 376,000 |
| Understatement of accumulated depreciation | $62,000 |

| | | | |
|---|---|---|---|
| (5) | Other Fund Balances | 528,000 | |
| | Plant Replacement Fund | | 417,000 |
| | General Fund | | 111,000 |
| | To close out Other Fund Balances and to allocate its balance to the General Fund and the Plant Replacement Fund. | | |

**Problem 19–3**

## CENTURY UNIVERSITY
## Transactions for the Year Ended June 30, 2008

**Part A**

| | | Current Funds | | | | | |
|---|---|---|---|---|---|---|---|
| | | Unrestricted | | Restricted | | Endowment Fund | |
| | Account | Debit | Credit | Debit | Credit | Debit | Credit |
| (1) | Cash | | | 50,000 | | | |
| | Contribution Revenue | | | | 50,000 | | |
| | To record receipt of cash gift for purchase of books | | | | | | |
| | Cash | | | | | 50,000 | |
| | Contribution Revenue | | | | | | 50,000 |
| | To record receipt of cash gift to establish scholarship fund | | | | | | |
| | Investment in Savings Certificates | | | | | 50,000 | |
| | Cash | | | | | | 50,000 |
| | To record purchase of savings certificates | | | | | | |
| (2) | Cash | 1,686,000 | | | | | |
| | Deferred Revenue | 66,000 | | | | | |
| | Accounts Receivable | 148,000 | | | | | |
| | Revenue | | 1,900,000 | | | | |
| | To record tuition and fees revenue | | | | | | |
| | Cash | 158,000 | | | | | |
| | Deferred Revenue | | 158,000 | | | | |
| | To record deferred revenue at June 30, 2008 | | | | | | |
| (3) | Cash | 349,000 | | | | | |
| | Allowance for Uncollectible Accounts | 1,000 | | | | | |
| | Accounts Receivable | | 350,000 | | | | |
| (4) | Cash | 6,000 | | | | | |
| | Revenue | | 6,000 | | | | |
| | To record interest earned on late student fee payments | | | | | | |

**Problem 19–3 (continued)**

| | | Current Funds | | | | Endowment Fund | |
|---|---|---|---|---|---|---|---|
| | | Unrestricted | | Restricted | | | |
| | Account | Debit | Credit | Debit | Credit | Debit | Credit |
| (5) | Cash | 75,000 | | | | | |
| | State Appropriation Receivable | 50,000 | | | | | |
| | Revenue | | 50,000 | | | | |
| | State Appropriation Receivable | | 75,000 | | | | |
| | To record receipt of regular appropriation and to record additional appropriation | | | | | | |
| (6) | Cash | 25,000 | | | | | |
| | Revenue | | 25,000 | | | | |
| | To record receipt of unrestricted gift | | | | | | |
| (7) | Cash | | | 26,000 | | | |
| | Investment | | | | 21,000 | | |
| | Fund Balance | | | | 5,000 | | |
| | To record sale of investments | | | | | | |
| | Cash | | | 1,900 | | | |
| | Investment Income | | | | 1,900 | | |
| | To record income earned on investments | | | | | | |
| (8) | Expenses | 1,777,000 | | | | | |
| | Accounts Payable | | 59,000 | | | | |
| | Cash | | 1,718,000 | | | | |
| (9) | Expenditures | | | 13,000 | | | |
| | Cash | | | | 13,000 | | |
| | To record payment of authorized expenditures | | | | | | |
| | Fund Balance | | | 13,000 | | | |
| | Revenue | | | | 13,000 | | |
| | To record as revenue amounts expended for restricted purposes | | | | | | |

## Problem 19–3 (continued)

| | | Current Funds | | | | Endowment Fund | |
|---|---|---|---|---|---|---|---|
| | | Unrestricted | | Restricted | | | |
| | Account | Debit | Credit | Debit | Credit | Debit | Credit |
| (10) | Accounts Payable | 45,000 | | | | | |
| | Cash | | 45,000 | | | | |
| (11) | Cash | | | | | 7,000 | |
| | Due to Current Restricted Fund | | | | | | 7,000 |
| | To record receipt of interest income on savings certificates purchased by Endowment Fund | | | | | | |
| | Due from Endowment Fund | | | 7,000 | | | |
| | Fund Balance | | | | 7,000 | | |
| | To record income due from Endowment Fund for Scholarships | | | | | | |

**Part B**

### CENTURY UNIVERSITY
### Statement of Activities
### For the Year Ended June 30, 2008

| | Current Funds | | Endowment Fund |
|---|---|---|---|
| | Unrestricted | Restricted | |
| Revenue and additions: | | | |
| Unrestricted current fund revenues | $1,981,000 | | |
| Private gifts – restricted | | $50,000 | $50,000 |
| Endowment income - restricted | | 7,000 | |
| Realized gains on investments – restricted | | 5,000 | |
| Investment income – restricted | | 1,900 | 50,000 |
| Total revenue & additions | $1,981,000 | $63,900 | $0 |
| Expenditures: | | | |
| Educational & general | $1,780,000 | $13,000 | |
| Total expenditures | $1,780,000 | $13,000 | 0 |
| Net increase for the year | 201,000 | 50,900 | 50,000 |
| Fund balance at beginning of year | 515,000 | 67,000 | 0 |
| Fund balances at end of year | $716,000 | $117,900 | $50,000 |

**Problem 19–3 (continued)**

**Part C**

**CENTURY UNIVERSITY**
**Statement of Activities**
**For the Year Ended June 30, 2008**

| | Current Funds | | Total |
|---|---|---|---|
| | Unrestricted | Restricted | |
| Revenue and additions: | | | |
| Tuition and fees | $1,900,000 | | $1,900,000 |
| State appropriations | 50,000 | | 50,000 |
| Private gifts and grants | 25,000 | $13,000 | 38,000 |
| Interest on deferred tuition | 6,000 | | 6,000 |
| Total current revenue | 1,981,000 | 13,000 | 1,994,000 |
| Expenditures: | | | |
| Educational and general | 1,780,000 | 13,000 | 1,780,000 |
| Total expenditures | 1,780,000 | 13,000 | 1,780,000 |
| Excess of restricted receipts over transfers to revenue | | 50,900 | 50,900 |
| Net increase in fund balance | $201,000 | $50,900 | $264,900 |

## Problem 19–4

| Event | Fund | Journal Entry | | |
|---|---|---|---|---|
| 1 | Endowment Fund – Brown | Cash | 10,000 | |
| | | Revenue | | 10,000 |
| 2 | Endowment Fund – Gross | Cash | 20,000 | |
| | | Revenue | | 20,000 |
| 3 | Endowment Fund – Norton | Cash | 30,000 | |
| | | Revenue | | 30,000 |
| 4 | Annuity Fund | Cash | 205,000 | |
| | | Revenue-contribution | | 123,891 |
| | | Annuity Payable | | 81,109 |
| | | ($10,000 × 8.1109) | | |
| 5 | Endowment Fund – Jackson | Investments (1,000)($150) | 150,000 | |
| | | Revenue | | 150,000 |
| 6A | Endowment Fund – Brown | Investments (1/3)($30,000) | 10,000 | |
| | | Cash | | 10,000 |
| 6B | Endowment Fund – Gross | Investments (2/3)($30,000) | 20,000 | |
| | | Cash | | 20,000 |
| 7 | Endowment Fund – Norton | Investments | 30,000 | |
| | | Cash | | 30,000 |
| 8 | Annuity Fund | Investments | 200,000 | |
| | | Cash | | 200,000 |

Interest computations ($30,000)(.12) = $3,600, 1/3 of $3,600, or $1,200 to Brown, 2/3 of $3,600, or $2,400 to Gross
($30,000)(.10)=$3,000 to Norton

**Problem 19-4 (continued)**

| Event | Fund | Journal Entry | | |
|---|---|---|---|---|
| 9A1 | Endowment Fund – Brown | Cash | 600 | |
| | | Due to Unrestricted Current Fund | | 600 |
| 9A2 | Unrestricted Current Fund | Due from Endowment Fund – Brown | 600 | |
| | | Investment Income | | 600 |
| 9B1 | Endowment Fund – Gross | Cash | 1,200 | |
| | | Due to Restricted Current Fund | | 1,200 |
| 9B2 | Restricted Current Fund | Due from Endowment Fund - Gross | 1,200 | |
| | | Investment Income | | 1,200 |
| 9C1 | Endowment Fund - Norton | Cash | 1,500 | |
| | | Due to Loan Fund | | 1,500 |
| 9C2 | Loan Fund | Due From Endowment Fund - Norton | 1,500 | |
| | | Investment Income | | 1,500 |
| 9D | Annuity Fund | Cash (8%)($200,000)/2 | 8,000 | |
| | | Annuity payable | | 8,000 |
| 9E | Endowment Fund - Jackson | Cash | 4,000 | |
| | | Investment Income (BIM dividend) | | 4,000 |
| 9F1 | Endowment Fund - Brown | Due to Unrestricted Current Fund | 600 | |
| | | Cash | | 600 |
| 9F2 | Unrestricted Current Fund | Cash | 600 | |
| | | Due from Endowment Fund - Brown | | 600 |
| 9G1 | Endowment Fund - Gross | Due to Restricted Current Fund | 1,200 | |
| | | Cash | | 1,200 |
| 9G2 | Restricted Current Fund | Cash | 1,200 | |
| | | Due from Endowment Fund - Gross | | 1,200 |

**Problem 19–4 (continued)**

| Event | Fund | Journal Entry | | |
|---|---|---|---|---|
| 9H1 | Endowment Fund - Norton | Due to Loan Fund | 1,500 | |
| | | Cash | | 1,500 |
| 9H2 | Loan Fund | Cash | 1,500 | |
| | | Due from Endowment Fund – Norton | | 1,500 |
| 10 | Annuity Fund | Annuity Payable | 10,000 | |
| | | Cash | | 10,000 |
| 11 | Endowment Fund - Brown | Cash | 6,800 | |
| | | Investments | | 6,667 |
| | | Fund Balance | | 133 |
| | Endowment Fund - Gross | Cash | 13,600 | |
| | | Investments | | 13,333 |
| | | Fund Balance | | 267 |
| 12 | Loan Fund | Loan Receivable | 300 | |
| | | Cash | | 300 |
| 13 | Annuity Fund | Annuity Payable | 79,109 | |
| | | Revenue | 123,891 | |
| | | Due to Unexpended Plant Fund | | 203,000 |
| | Unexpended Plant Fund | Due from Annuity Fund | 203,000 | |
| | | Fund Balance – Restricted | | 203,000 |
| 14 | Restricted Current Fund | (1) Expenses – Scholarship | 200 | |
| | | Cash | | 200 |

**Problem 19–4 (continued)**

| Event | Fund | Journal Entry | | |
|---|---|---|---|---|
| 15 | Annuity Fund | Cash | 206,000 | |
| | | Investment income | | 6,000 |
| | | Investments | | 200,000 |
| | | | | |
| | Annuity Fund | Investment income) | 6,000 | |
| | | Due to unexpended plant fund | | 6,000 |
| | Unexpended Plant Fund | Due from annuity fund | 6,000 | |
| | | Fund balance restricted | | 6,000 |
| 16 | Endowment Fund – Norton | (1A) Cash | 1,500 | |
| | | Due to Loan Fund | | 1,500 |
| | | (1B) Due to Loan Fund | 1,500 | |
| | | Cash | | 1,500 |
| | Loan Fund | (2A) Due from Endowment Fund - Norton | 1,500 | |
| | | Investment income | | 1,500 |
| | | | | |
| | | (2B) Cash | 1,500 | |
| | | Due from Endowment Fund – Norton | | 1,500 |
| | Endowment Fund-Brown | Cash | 200 | |
| | | Due to unrestricted current fund | | 200 |
| | Unrestricted current fund | Due from endowment fund - Brown | 200 | |
| | | Endowment income | | 200 |
| | Endowment Fund-Gross | Cash | 400 | |
| | | Due to restricted current fund | | 400 |
| | Restricted Current Fund - Gross | Due from Endowment Fund - Gross | 400 | |
| | | Investment Income | | 400 |

** Note: These entries assume the cash due on January 1 was received on December 31.

| Event | Fund | Journal Entry | | |
|---|---|---|---|---|
| 17 | Loan Fund | Cash | 105 | |
| | | Loan Receivable | | 100 |
| | | Interest income | | 5 |
| | | | | |
| 18 | Annuity Fund | (1) Due to Unexpended Plant Fund | 209,000 | |
| | | Cash | | 209,000 |

**Problem 19–4 (continued)**

| | | | |
|---|---|---|---|
| Unexpended Plant Fund | (2) Cash | 250,000 | |
| | Due from Annuity Fund | | 209,000 |
| | Mortgage Payable | | 41,000 |
| | | | |
| | (3) Building | 250,000 | |
| | Cash | | 250,000 |
| | | | |
| | (4) Fund Balance – Restricted | 209,000 | |
| | Mortgage Payable | 41,000 | |
| | Building | | 250,000 |
| | | | |
| Investment in Plant | (5) Building | 250,000 | |
| | Mortgage Payable | | 41,000 |
| | Net Investment in Plant | | 209,000 |

**Problem 19–5**

| | | | | |
|---|---|---|---|---|
| **Part A** | 1. | Cash | 151,000 | |
| | | Revenue - Service Fees | | 30,000 |
| | | Revenue - Book Rentals & Fines | | 121,000 |
| | 2. | Cash | 40,000 | |
| | | Grant Receivable | | 40,000 |
| | | Grant Receivable | 20,000 | |
| | | Support – Grants | | 20,000 |
| | 3. | Cash (Unrestricted) | 215,000 | |
| | | Cash – Temporarily Restricted | 108,000 | |
| | | Contributions – Gifts | | 215,000 |
| | | Contributions – Restricted Support | | 108,000 |
| | 4. | Cash | 75,000 | |
| | | Investment Income | | 75,000 |
| | 5. | Expenses - Circulating Library | 189,000 | |
| | | Expenses - Research Library | 74,000 | |
| | | Expenses - Exhibits | 15,000 | |
| | | Expenses - Community Services | 12,000 | |
| | | Expenses - General & Administrative | 166,000 | |
| | | Expenses - Fund Raising | 103,000 | |
| | | Accounts Payable | | 559,000 |
| | 6. | Accounts Payable | 500,000 | |
| | | Cash | | 500,000 |
| | 7. | Expenses - Research Library | 5,000 | |
| | | Expenses - General & Administrative | 3,000 | |
| | | Accrued Expenses | | 8,000 |
| | 8. | Net Assets Released from Restrictions | 68,000 | |
| | | Cash – Temporarily Restricted | | 68,000 |
| | | Cash – Unrestricted | 68,000 | |
| | | Net Assets Released from Restrictions | | 68,000 |
| | 9. | Investments | 15,000 | |
| | | Investment Income | | 15,000 |
| | 10. | Expenses - Circulating Library | 3,500 | |
| | | Expenses - Research Library | 2,900 | |
| | | Expenses - General & Administrative | 2,600 | |
| | | Accumulated Depreciation | | 9,000 |

**Problem 19–5 (continued)**

| | | | |
|---|---|---|---|
| 11. | Expenses - Exhibits | 3,700 | |
| | Expenses - General & Administrative | 1,300 | |
| | Prepaid Expenses | | 5,000 |

**Part B**

## PRESTON LIBRARY
## Statement of Financial Position, February 28, 2008

| Assets | Unrestricted | Temporarily Restricted |
|---|---|---|
| Current Assets | | |
| Cash | $334,000 | $120,000 |
| Grants Receivable | 60,000 | |
| Prepaid Expenses | 60,000 | |
| Total | 454,000 | |
| Investments (at market) | 1,035,000 | |
| Land, Buildings, and Equipment | | |
| Less accumulated depreciation of $59,000 | 521,000 | |
| Total Assets | $2,010,000 | $120,000 |
| | | |
| Liabilities and Fund Balances | | |
| Current Liabilities | | |
| Accounts Payable & Accrued Expenses | $ 217,000 | |
| Total | 217,000 | |
| Long-term Debt | 200,000 | |
| Fund Balances | 1,593,000 | 120,000 |
| Total Liabilities and Fund Balances | $2,010,000 | $ 120,000 |

**Problem 19–5 (continued)**

## PRESTON LIBRARY
## Statement of Activities
## For Year Ended February 28, 2008

| | Unrestricted | Temporarily Restricted |
|---|---|---|
| Support & Revenue | | |
| Support | | |
| Grants | $20,000 | |
| Gifts | 215,000 | 108,000 |
| Total | 235,000 | 108,000 |
| Revenue | | |
| Service Fees | 30,000 | |
| Book Rental & Fines | 121,000 | |
| Investment Income | 90,000 | |
| Total | 241,000 | (68,000) |
| Net Assets Released from Restrictions | 68,000 | 40,000 |
| Total Revenue, Gains and Other Support | $544,000 | |
| Expenses | | |
| Program Services | | |
| Circulating Library | $192,500 | |
| Research Library | 81,900 | |
| Exhibits | 18,700 | |
| Community Services | 12,000 | |
| Total | 305,100 | |
| Support Services | | |
| General & Administrative | 172,900 | |
| Fund Raising | 103,000 | |
| Total | 275,900 | |
| Total | $ 581,000 | |
| | | 40,000 |
| Increase (decrease) in Net Assets | ($37,000) | 80,000 |
| Fund Balances – Beginning of Year | 1,630,000 | $ 120,000 |
| Fund Balances – End of Year | $1,593,000 | |

**Problem 19–6**

## BLOOD DONORS OF AMERICA FOUNDATION
## Statement of Financial Position, December 31, 2008

| | Current | | | | |
|---|---|---|---|---|---|
| | Unrestricted | Restricted | Plant | Endowment | Total |
| ASSETS | | | | | |
| Cash | $230,000 | $155,000 | $15,000 | $70,000 | $470,000 |
| Accounts Receivable | 160,000 | | | | 160,000 |
| Allowance for Doubtful Accounts | (30,000) | | | | (30,000) |
| Pledges Receivable | | 930,000 | | | 930,000 |
| Allowance for Doubtful Pledges | | (130,000) | | | (130,000) |
| Inventories | 400,000 | | | | 400,000 |
| Investments | 8,205,000 | 6,380,000 | 935,000 | 3,780,000 | 19,300,000 |
| Land | | | 1,300,000 | | 1,300,000 |
| Buildings and Improvements | | | 46,500,000 | | 46,500,000 |
| Equipment | | | 2,700,000 | | 2,700,000 |
| Accumulated Depreciation | | | (13,500,000) | | (13,500,000) |
| Other Assets | 200,000 | | | | 200,000 |
| Total Assets | $9,165,000 | $7,335,000 | $37,950,000 | $3,850,000 | $58,300,000 |
| | | | | | |
| LIABILITIES AND FUND BALANCES | | | | | |
| Accounts Payable | $665,000 | $35,000 | | | $700,000 |
| Accrued Expenses | 130,000 | | | | 130,000 |
| Deferred Revenue Unrestricted | 100,000 | | | | 100,000 |
| Deferred Capital Additions | | | 1,600,000 | | 1,600,000 |
| Long–Term Debt | | | 7,350,000 | | 7,350,000 |
| Total Liabilities | 895,000 | 35,000 | 8,950,000 | | 9,880,000 |
| Fund Balances | | | | | |
| Plant Fund | | | 29,000,000 | | 29,000,000 |
| Endowment Fund | | | | 3,850,000 | 3,850,000 |
| Restricted Fund | | 7,300,000 | | | 7,300,000 |
| Unrestricted Fund | 8,270,000 | | | | 8,270,000 |
| Total Fund Balances | 8,270,000 | 7,300,000 | 29,000,000 | 3,850,000 | 48,420,000 |
| Total Liabilities and Fund Balance | $9,165,000 | $7,335,000 | $37,950,000 | $3,850,000 | $58,300,000 |

**Problem 19–7**

**Part A** **January 1, 2009**

| | |
|---|---|
| Restricted Fund ($70,000/$500,000) | 14% |
| Lambert Endowment Fund ($210,000/$500,000) | 42% |
| Plant Fund ($220,000/$500,000) | 44% |

**January 3, 2010**

Current market value = $540,000 - 0.44 × $540,000 + $117,600 = $420,000

| | |
|---|---|
| Restricted Fund ((0.14 × $540,000)/$420,000) | 18% |
| Lambert Endowment Fund ((0.42 × $540,000)/$420,000) | 54% |
| Fargot Annuity Fund ($117,600/$420,000) | 28% |

**Part B**

| **Date** | **Fund** | **Journal Entry** | **Debit** | **Credit** |
|---|---|---|---|---|
| 12/31/2009 | Restricted | Cash (($15,000 + $10,000) × 0.14) | 3,500 | |
| | | Investments ($20,000 × 0.14) | 2,800 | |
| | | Deferred Support | | 6,300 |
| | Lambert Endowment | Cash (($15,000 + $10,000) × 0.42) | 10,500 | |
| | | Investments ($20,000 × 0.42) | 8,400 | |
| | | Investment Income | | 18,900 |
| | Plant | Cash (($15,000 + $10,000) × 0.44) | 11,000 | |
| | | Investments ($20,000 × 0.44) | 8,800 | |
| | | Deferred Support | | 19,800 |
| 12/31/2010 | Restricted | Cash (($25,000 + $15,000) × 0.18) | 7,200 | |
| | | Investments ($30,000 × 0.18) | 5,400 | |
| | | Deferred Support | | 12,600 |
| | Lambert Endowment | Cash (($25,000 + $15,000) × 0.54) | 21,600 | |
| | | Investments ($30,000 × 0.54) | 16,200 | |
| | | Investment Income | | 37,800 |
| | Fargot Annuity | Cash (($25,000 + $15,000) × 0.28)) | 11,200 | |
| | | Investments ($30,000 × 0.28) | 8,400 | |
| | | Investment Income | | 19,600 |