## Chapter 1 - Business Combinations: America's Most Popular Business Activity, Bringing an End to the Controversy

## MULTIPLE CHOICE

1. An economic advantage of a business combination includes
a. Utilizing duplicative assets.
b. Creating separate management teams.
c. Coordinated marketing campaigns.
d. Horizontally combining levels within the marketing chain.

ANS: C DIF: E OBJ: 1
2. A tax advantage of business combination can occur when the existing owner of a company sells out and receives:
a. cash to defer the taxable gain as a "tax-free reorganization."
b. stock to defer the taxable gain as a "tax-free reorganization."
c. cash to create a taxable gain.
d. stock to create a taxable gain.

ANS: B
DIF: E
OBJ: 1
3. A controlling interest in a company implies that the parent company
a. owns all of the subsidiary's stock.
b. has influence over a majority of the subsidiary's assets.
c. has paid cash for a majority of the subsidiary's stock.
d. has transferred common stock for a majority of the subsidiary's outstanding bonds and debentures.

ANS: B
DIF: M
OBJ: 2
4. Which of the following is a potential abuse that may arise when a business combination is accounted for as a pooling of interests? a. Assets of the buyer may be overvalued when the price paid by the investor is allocated among specific assets.
b. Earnings of the pooled entity may be increased because of the combination only and not as a result of efficient operations.
c. Liabilities may be undervalued when the price paid by the investor is allocated to specific liabilities.
d. An undue amount of cost may be assigned to goodwill, thus potentially allowing an understatement of pooled earnings.

ANS: B DIF: M OBJ: 3, Appendix A
5. Company $B$ acquired the assets (net of liabilities) of Company $S$ in exchange for cash. The acquisition price exceeds the fair value of the net assets acquired. How should Company B determine the amounts to be reported for the plant and equipment, and for long-term debt of the acquired Company S?

|  | Plant and Equipment | Long-Term Debt |
| :--- | :--- | :--- |
| a. Fair value |  | S's carrying amount |
| b. Fair value | Fair value |  |
| c. S's carrying amount |  | Fair value |
| d. S's carrying amount |  | S's carrying amount |

ANS: B DIF: E OBJ: 4
6. Publics Company acquired the net assets of Citizen Company during 20X5. The purchase price was $\$ 800,000$. On the date of the transaction, Citizen had no long-term investments in marketable equity securities and $\$ 400,000$ in liabilities. The fair value of Citizen assets on the acquisition date was as follows:

| Current assets | \$ 800,000 |
| :---: | :---: |
| Noncurrent assets | 600, 000 |
|  | \$1,400, 000 |

How should Publics account for the $\$ 200,000$ difference between the fair value of the net assets acquired, \$1,000,000, and the cost, \$800,000?
a. Retained earnings should be reduced by $\$ 200,000$.
b. Current assets should be recorded at $\$ 685,000$ and noncurrent assets recorded at \$515,000.
c. The noncurrent assets should be recorded at $\$ 400,000$.
d. A deferred credit of $\$ 200,000$ should be set up and subsequently amortized to future net income over a period not to exceed 40 years.

ANS: C
DIF: M
OBJ: 4
7. $A B C$ Co. is acquiring $X Y Z$ Inc. $X Y Z$ has the following Intangible assets:

Patent on a product that is deemed to have no useful life $\$ 10,000$. Customer List with an observable fair value of $\$ 50,000$.
A 5-year operating lease with favorable terms with a discounted present value of \$8,000.
Identifiable R \& D of \$100,000.
ABC will record how much for acquired Intangible Assets from the Purchase of XYZ Inc?
a. \$168,000
b. $\$ 58,000$
c. \$158,000
d. \$150,000

ANS: B DIF: D OBJ: 4
8. Vibe Company purchased the net assets of Atlantic Company in a business combination accounted for as a purchase. As a result, goodwill was recorded. For tax purposes, this combination was considered to be a tax-free merger. Included in the assets is a building with an appraised value of $\$ 210,000$ on the date of the business combination. This asset had a net book value of $\$ 70,000$, based on the use of accelerated depreciation for accounting purposes. The building had an adjusted tax basis to Atlantic (and to Vibe as a result of the merger) of $\$ 120,000$. Assuming a $36 \%$ income tax rate, at what amount should Vibe record this building on its books after the purchase?
a. \$120, 000
b. \$134, 400
c. \$140,000
d. \$210, 000

ANS: D DIF: M OBJ: 4
9. Goodwill represents the excess cost of an acquisition over the a. sum of the fair values assigned to intangible assets less liabilities assumed.
b. sum of the fair values assigned to tangible and intangible assets acquired less liabilities assumed.
c. sum of the fair values assigned to intangibles acquired less liabilities assumed.
d. book value of an acquired company.

ANS: B
DIF: M
OBJ: 5
10. When purchasing a company occurs, FASB recommends disclosing all of the following EXCEPT:
a. goodwill related to each reporting segment.
b. contingent payment agreements, options, or commitments included in the purchase agreement, including accounting methods to be followed.
c. results of operations for the current period if both companies had remained separate.
d. amount of in-process R\&D purchased and written-off during the period.

ANS: C
DIF: M
OBJ: 5
11. Cozzi Company is being purchased and has the following balance sheet as of the purchase date:

| Current assets. | \$200, 000 | Liabilities.... \$ 90,000 |
| :---: | :---: | :---: |
| Fixed assets | 180, 000 | Equity........ 290,000 |
| Total | \$380, 000 | Total....... \$380,000 |

The price paid for Cozzi's net assets (the purchaser assumes the liabilities) is \$500,000. The fixed assets have a fair value of $\$ 220,000$, and the liabilities have a fair value of $\$ 110,000$. The amount of goodwill to be recorded in the purchase is $\qquad$ -.
a. \$0
b. \$50, 000
c. \$70,000
d. \$90, 000

ANS: C DIF: M OBJ: 6
12. Separately identified intangible assets are accounted for by amortizing:
a. exclusively by using impairment testing.
b. based upon a pattern that reflects the benefits conveyed by the asset.
c. over the useful economic life less residual value using only the straight-line method.
d. amortizing over a period not to exceed a maximum of 40 years.

ANS: B DIF: E OBJ: 6
13. Acme Co. is preparing a pro-forma set of financial statements after an acquisition of Coyote Co. The purchase price is less than the fair value of the assets acquired. However, the purchase price is greater than net book value of the acquired company.
a. Acme's goodwill will decrease over time.
b. Acme's amortization of intangible assets will increase over time.
c. Depreciation expense will be greater than Coyote Company's expense.
d. Coyote's loss on the sale of the assets will create a net loss carryforward.
ANS: C
DIF: D
OBJ: 6
14. While performing a goodwill impairment test, the company had the following information:
Estimated implied fair value of reporting unit
(without goodwill)
Existing net book value of reporting unit
(without goodwill) \$380,000
Book value of goodwill
\$420, 000
\$60, 000

Based upon this information the proper conclusion is:
a. The existing net book value plus goodwill is in excess of the implied fair value, therefore, no adjustment is required.
b. The existing net book value plus goodwill is less than the implied fair value plus goodwill, therefore, no adjustment is required.
c. The existing net book value plus goodwill is in excess of the implied fair value, therefore, goodwill needs to be decreased.
d. The existing net book value is less than the estimated implied fair value; therefore, goodwill needs to be decreased.

ANS: C
DIF: D
OBJ: 6
15. Balter Inc. acquired Jersey Company on January 1, 20x5. When the purchase occurred Jersey Company had the following information related to fixed assets:

| Land | $\$ 0,000$ |
| :--- | :---: |
| Building | 200,000 |
| Accumulated Depreciation | $(100,000)$ |
| Equipment | 100,000 |
| Accumulated Depreciation | $(50,000)$ |

The building has a 10-year remaining useful life and the equipment has a 5 -year remaining useful life. The fair value of the assets on that date were:
$\begin{array}{lr}\text { Land } & \$ 100,000 \\ \text { Building } & 130,000 \\ \text { Equipment } & 75,000\end{array}$
What is the $20 \times 5$ depreciation expense Balter will record related to purchasing Jersey Company?
a. \$8,000
b. \$15,000
c. \$28,000
d. \$30,000

ANS: C
DIF: M
OBJ: 6
16. In performing the $20 \times 7$ impairment test for goodwill, the company had the following $20 \times 6$ and $20 \times 7$ information is available.

20X6 20X7
Implied fair value of reporting unit $\quad$ \$350,000 $\$ 400,000$ Net book value of reporting unit (including goodwill) \$380,000 \$360,000

Based upon this information what are the $20 \times 6$ and $20 \times 7$ adjustment to goodwill, if any?
a. 20X6 \$0 20X7 \$40,000 decrease
b. 20X6 \$30,000 increase 20X7 \$40,000 decrease
c. 20X6 \$30,000 decrease 20X7 \$40,000 decrease
d. 20X6 \$30,000 decrease 20X7 \$0

ANS: D
DIF: D
OBJ: 7
17. Couples Corporation purchases Players Corporation. The fair value of the net assets of Players is $\$ 750,000$ and the fair value of priority accounts (including a deduction for depreciation) is $\$ 600,000$. Which of the following purchase prices would require using allocation procedures?
a. \$500, 000
b. \$600, 000
c. \$700, 000
d. $\$ 800,000$

ANS: B DIF: D OBJ: 7
18. ACME Co. paid $\$ 110,000$ for the net assets of Comb Corp. At the time of the acquisition the following information was available related to Comb's balance sheet:

Current Assets
Book Value
Building
\$50, 000
Equipment
Liabilities

80, 000
40, 000
30, 000
$\frac{\text { Fair Value }}{\$ 50,000}$
100, 000 50, 000 30, 000

What is the amount recorded by ACME for the Building?
a. \$40, 000
b. \$60, 000
c. \$80,000
d. \$100, 000

ANS: B DIF: D OBJ: 7
19. Which of the following business combination expenses would NOT qualify
as a direct acquisition expense for a purchase?
a. Fees for purchase audit
b. Outside legal fees
c. Stock issuance fees
d. All are direct acquisition expenses.

ANS: C DIF: E OBJ: 8
20. Polk issues common stock to acquire all the assets of the Sam Company on January 1, 20X5. There is a contingent share agreement, which states that if the income of the Sam Division exceeds a certain level during 20X5 and 20X6, additional shares will be issued on January 1, 20X7. The impact of issuing the additional shares is to
a. increase the price assigned to fixed assets.
b. have no effect on asset values, but to reassign the amounts assigned to equity accounts.
c. reduce retained earnings.
d. record additional goodwill.

ANS: D DIF: D OBJ: 8
21. In a purchase, the direct acquisition, indirect acquisition and security issuance costs are accounted for as follows:

|  | Direct Acquisition | Indirect Acquisition | Security Issuance |
| :---: | :---: | :---: | :---: |
| a. | Added to price paid | Added to price paid | Added to price paid |
|  | Added to price paid | Expensed | Deducted from value of security issued |
|  | Expensed | Expensed | Deducted from value of security issued |
|  | Expensed | Expensed | Expensed |

ANS: B DIF: E OBJ: 9
22. Orbit Inc. purchased Planet Co. in 20X3. At that time an existing patent was not recorded as a separately identified intangible asset. At the end of fiscal year 20X5, the patent is valued at $\$ 15,000$, and goodwill has a book value of $\$ 100,000$. How should intangible assets be reported at the beginning of fiscal year 20X6?
a. Goodwill \$100,000 Patent \$0
b. Goodwill \$115,000 Patent \$0
c. Goodwill \$100,000 Patent \$15,000
d. Goodwill \$85,000 Patent \$15,000

ANS: D
DIF: M
OBJ: 9
23. Which of the following income factors should not be factored into a calculation of goodwill?
a. sales for the period
b. income tax expense
c. extraordinary items
d. cost of goods sold

ANS: C DIF: M OBJ: 10, Appendix A

## PROBLEM

1. Internet Corporation is considering the acquisition of Homepage Corporation and has obtained the following audited condensed balance sheet:

Homepage Corporation Balance Sheet
December 31, 20X5

| Assets |  | Liabilities and Equity | \$ 60,000 |
| :---: | :---: | :---: | :---: |
| Current assets. | \$ 40,000 | Current Liabilities |  |
| Land | 20, 000 | Capital Stock (50,000 shares, |  |
| Buildings (net) | 80,000 | \$1 par value) | 50,000 |
| Equipment (net) | 60, 000 | Other Paid-in Capital | 20,000 |
|  |  | Retained Earnings. | 70,000 |
|  | \$200,000 |  | \$200, 000 |

Internet also acquired the following fair values for Homepage's assets and liabilities:

| Current as | \$ 55,000 |
| :---: | :---: |
| Land | 60, 000 |
| Buildings (net) | 90,000 |
| Equipment (net) | 75,000 |
| Current Liabilities | (60, 000) |
|  | \$220,000 |

Internet and Homepage agree on a price of $\$ 280,000$ for Homepage's net assets. Prepare the necessary journal entry to record the purchase given the following scenarios:
a. Internet pays cash for Homepage Corporation and incurs \$5,000 of direct acquisition costs.
b. Internet issues its $\$ 5$ par value stock as consideration. The fair value of the stock at the acquisition date is $\$ 50$ per share. Additionally, Internet incurs \$5,000 of security issuance costs.

ANS:

| a. Current assets. | \$55, 000 |  |
| :---: | :---: | :---: |
| Land | 60, 000 |  |
| Buildings | 90,000 |  |
| Equipment | 75,000 |  |
| Goodwill. | 65,000 |  |
| Current Liabilities |  | \$ 60,000 |
| Cash. |  | 285,000 |
| b. Current assets | \$55, 000 |  |
| Land. | 60,000 |  |
| Buildings | 90, 000 |  |
| Equipment | 75,000 |  |
| Goodwill | 65,000 |  |
| Current Liabilities. |  | \$ 60,000 |
| Common Stock. |  | 28, 000 |
| Other Paid-in Capital |  | 252,000 |
| Cash...... |  | 5,000 |

DIF: M
OBJ: 5
2. On January 1, 20X5, Brown Inc. acquired Larson Company's net assets in exchange for Brown's common stock with a par value of $\$ 100,000$ and a fair value of $\$ 800,000$. Brown also paid $\$ 10,000$ in direct acquisition costs and \$15,000 in stock issuance costs.

On this date, Larson's condensed account balances showed the following:

|  | Book Value |  | Fair Value |
| :--- | :---: | :---: | :---: |
| Current Assets | $\$ 280,000$ | $\$ 370,000$ |  |
| Plant and Equipment | 440,000 | 480,000 |  |
| Accumulated Depreciation | $(100,000)$ |  |  |
| Intangibles - Patents | 80,000 | 120,000 |  |
| Current Liabilities | $(140,000)$ | $(140,000)$ |  |
| Long-Term Debt | $(100,000)$ | $(110,000)$ |  |
| Common Stock | $(200,000)$ |  |  |
| Other Paid-in Capital | $(120,000)$ |  |  |
| Retained Earnings | $(140,000)$ |  |  |

## Required:

Record Brown's purchase of Larson Company's net assets on the books of Brown Inc.

ANS:

|  | Debit | Credit |
| :---: | :---: | :---: |
| Current Assets | \$370,000 |  |
| Plant and Equipment | 480, 000 |  |
| Intangibles - Patents. | 120,000 |  |
| Intangibles - Goodwill | 90,000 |  |
| Current Liabilities |  | \$140, 000 |
| Long-term Debt |  | 110, 000 |
| Common Stock. |  | 100, 000 |
| Other Paid-in Capital |  | 685, 000 |
| Cash. |  | 25,000 |

To record the acquisition of Larson's net asset.

DIF: M OBJ: 3, 11, 12, Appendix B
3. The Chan Corporation purchased the net assets (existing liabilities were assumed) of the Don Company for $\$ 900,000$ cash. The balance sheet for the Don Company on the date of acquisition showed the following:

| Assets |  |
| :---: | :---: |
| Current assets | \$ 100,000 |
| Equipment | 300, 000 |
| Accumulated depreciation | (100, 000) |
| Plant | 600, 000 |
| Accumulated depreciation | (250, 000) |
| Total | \$ 650,000 |
| Liabilities and Equity |  |
| Bonds payable, 8\%. | \$ 200,000 |
| Common stock, \$1 par | 100,000 |
| Paid-in capital in excess of par | 200,000 |
| Retained earnings | 150,000 |
| Total. | \$ 650,000 |

## Required:

The equipment has a fair value of $\$ 300,000$, and the plant assets have a fair value of $\$ 500,000$. Assume that the Chan Corporation has an effective tax rate of $40 \%$. Prepare the entry to record the purchase of the Don Company for each of the following separate cases with specific added information:
a. The sale is a nontaxable exchange to the seller that limits the buyer to depreciation and amortization on only book value for tax purposes.
b. The bonds have a current fair value of $\$ 190,000$. The transaction is a nontaxable exchange.
c. There are $\$ 100,000$ of prior-year losses that can be used to claim a tax refund. The transaction is a nontaxable exchange.
d. There are $\$ 150,000$ of past losses that can be carried forward to future years to offset taxes that will be due. The transaction is a nontaxable exchange.

ANS:


DIF: D OBJ: 8
4. On January 1, 20X5, Zebb and Nottle Companies had condensed balance sheets as shown below:

|  | Zebb <br> Company |
| :--- | :--- | | Nottle |
| ---: |
| Company |

## Required:

Record the acquisition of Nottle's net assets, the issuance of the stock and/or payment of cash, and payment of the related costs. Assume that Zebb issued 30,000 shares of new common stock with a fair value of $\$ 25$ per share and paid $\$ 500,000$ cash for all of the net assets of Nottle. Direct acquisition costs of \$50,000 and stock issuance costs of $\$ 20,000$ were paid-in cash. The combination is accounted for as a purchase. Current assets had a fair value of $\$ 650,000$, plant and equipment had a fair value of \$900,000, and long-term debt had a fair value of \$330,000.

ANS:

| Current Assets | \$650, 000 |  |
| :---: | :---: | :---: |
| Plant and Equipment | 900, 000 |  |
| Goodwill. | 180, 000 |  |
| Current Liabilities |  | \$100, 000 |
| Long-Term Debt |  | 330, 000 |
| Common Stock. |  | 300, 000 |
| Paid-in Capital in Excess of Par (1) |  | 430, 000 |
| Cash (2) |  | 570,000 |

(1) $30,000 \times(\$ 25-10)-\$ 20,000$
(2) $\$ 500,000+70,000=\$ 570,000$

DIF: M
OBJ: 5
5. On January 1, 20X1, Honey Bee Corporation purchased the net assets of Green Hornet Company for $\$ 1,500,000$. On this date, a condensed balance sheet for Green Hornet showed:

|  |  | Book Value | Fair <br> Value |
| :---: | :---: | :---: | :---: |
| Current Assets | \$ | 500,000 | \$800, 000 |
| Long-Term Investments in Securities. |  | 200, 000 | 150, 000 |
| Land |  | 100, 000 | 600, 000 |
| Buildings (net) |  | 700,000 | 900, 000 |
|  |  | 1,500,000 |  |
|  |  | ======== |  |
| Current Liabilities | \$ | 300, 000 | \$300, 000 |
| Long-Term Debt |  | 550, 000 | 600, 000 |
| Common Stock (no-par) |  | 300, 000 |  |
| Retained Earnings. |  | 350, 000 |  |
|  |  | 1,500,000 |  |

Required:
Record the entry on Honey Bee's books for the acquisition of Green Hornet's net assets. Prepare supporting schedules as necessary.

ANS:

| Current Assets | \$800, 000 |  |  |
| :---: | :---: | :---: | :---: |
| Long-Term Investments in Securities | 150,000 |  |  |
| Land. | 580,000 |  |  |
| Building. | 870, 000 |  |  |
| Current Liabilities |  | \$ | 300, 000 |
| Long-Term Debt |  |  | 600, 000 |
| Cash. |  |  | 500, 000 |

Remaining amount assignable to Land and Building:

Land
Building...
Total.....

| Fair <br> Value | Percent of Total <br> Fair Value | Total Cost <br> Assignable | Assigned <br> Value |  |
| :--- | :---: | :---: | :---: | :---: |
| $\$ 600,000$ | $40 \%$ |  | $\$ 1,450,000$ | $\$ 80,000$ |
|  | 900,000 | $60 \%$ | $1,450,000$ | 870,000 |
| $\$ 1,500,000$ |  |  | $\$ 1,450,000$ |  |

DIF: M OBJ: 7
6. Poplar Corp. acquires the net assets of Sapling Company, which has the following balance sheet:

| Accounts Receivable | $\$ 50,000$ |
| :--- | ---: |
| Inventory | 80,000 |
| Equipment, Net | 50,000 |
| Land \& Building, Net | 120,000 |
| Total Assets | $\$ 300,000$ <br> $======$ <br>  <br> Bonds Payable <br> Common Stock <br> Retained Earnings <br> Total Liabilities and <br> Stockholders' Equity |
|  | $\$ 90,000$ |
|  | \$300, |
|  | $=======$ |

Fair values on the date of acquisition:
Inventory \$100,000
Equipment 30,000
Land \& Building 180,000
Customer List 30,000
Bonds Payable 100,000
Direct acquisition costs: \$10,000
If Poplar paid $\$ 300,000$ what journal entries would be recorded by both Poplar Corp. and Sapling Company?

ANS:

## Poplar Corp:



## Sapling Company:

| Cash | $\$ 300,000$ <br> Bonds <br> Payable <br> Accounts Receivable <br> Inventory |  |
| :--- | ---: | ---: |
| $\quad$ Equipment |  | 50,000 |
|  |  | 80,000 |
| Land \& Building | 50,000 |  |
| Gain on Sale of Business | 120,000 |  |
|  | 90,000 |  |

Cash Received: \$300,000

Net Asset value sold 210,000
Gain
\$ 90,000
=======

DIF: M OBJ: 6
7. Diamond acquired Heart's net assets. At the time of the acquisition Heart's Balance sheet was as follows:

| Accounts Receivable | \$130, 000 |
| :---: | :---: |
| Inventory | 70,000 |
| Equipment, Net | 50,000 |
| Building, Net | 250, 000 |
| Land \& Building, Net | 100, 000 |
| Total Assets | \$600,000 |
| Bonds Payable | \$100, 000 |
| Common Stock | 50,000 |
| Retained Earnings | 450, 000 |
| Total Liabilities and |  |
| Stockholders' Equity | \$600, 000 |

Fair values on the date of acquisition:
Inventory
\$100, 000
Equipment
30, 000
Building
350, 000
Land 120, 000
Brand name copyright 50,000
Bonds payable 120,000
Direct acquisition costs: \$5,000

Required:
Record the entry for the purchase of the net assets of Heart by Diamond at the following Cash prices:
a. \$700, 000
b. \$300, 000
c. \$100,000

ANS:
a.

Accounts Receivable \$130,000
Inventory 100,000
Equipment 30,000
Building 350,000
Land
120, 000
Brand Name 50,000
Goodwill 45,000
Bonds Payable
\$100, 000
Premium on Bonds Payable Cash

$$
20,000
$$

705,000

```
Price paid
```

    (including direct acquisition costs)
    Fair value of current assets
less liabilities $\$ 110,000$
Fair value of recorded fixed assets 500,000
Excess attributable to Intangible Assets
Fair value of Customer List
Goodwill
b.
Accounts Receivable \$130,000
Inventory 100,000
Equipment 11,700
Building 136,500
Land 46,800
Bonds Payable \$100,000
Premium on Bonds Payable 20,000
Cash 305,000
Price paid
(including direct acquisition costs) \$305,000
Fair value of current assets
less liabilities 110,000
Attributable to long-lived assets \$195,000
c.
Accounts Receivable \$130,000
Inventory
100, 000
Extraordinary Gain
Bonds Payable
\$ 5,000
100,000
Premium on Bonds Payable
Cash 105,000
20,000
Price paid
(including direct acquisition costs) \$105,000
Fair value of current assets
less liabilities 110,000
Deferred credit on purchase
110,000
$\$(5,000)$
$\stackrel{\$}{\text { ², }}=====$
DIF: M
OBJ: 5, 7
8. Marquette Instruments Company acquired all the assets and assumed all the liabilities of the Nelson Company on July 1, 20X1. The fiscal year for both Marquette and Nelson ends on December 31. On the date of acquisition, Nelson Company had the following trial balance:


Marquette issued 10,000 of its $\$ 5$ par value shares for the outstanding shares of the Nelson Company and paid \$10,000 in direct acquisition costs. The fair value of its shares was $\$ 40$ per share. On the acquisition date, the inventory had a fair value of $\$ 80,000$ (sold by December 31), and the machinery had a fair value of $\$ 400,000$ with an estimated 8 -year remaining life. Any value associated with intangible assets arising from the business combination are associated with a patent that will be amortized over 10 years.

The following operating results were reported by the two resulting divisions:

|  | Marquette | Nelson |
| :---: | :---: | :---: |
|  | January 1-December 31 | July 1-December 31 |
| Sales | \$450, 000 | \$300, 000 |
| Cost of goods sold | 230,000 | 160, 000 |
| Operating expenses. | 120,000 | 80, 000 |
| Depreciation expens | 40, 000 | 15,000 |

The results for Nelson are based on book values and do not consider adjustments resulting from the business combination.

Required:
Prepare an income statement for the Marquette Instruments Company.

ANS:
Purchase (includes Nelson for only last 6 months)
Sales................................. \$750,000
Less:
Cost of goods sold
(Increase Nelson \$10,000)............. \$400,000
Operating expenses..................... 200,000
Depreciation expense (\$25,000 for Nelson
for half year).......................
67,500*
Patent amortization (\$10,000 $\div 10$ years
for half year)
Net income
$\qquad$ 500 668,000
\$ 82,000
=======
*\$40,000 + \$15,000 + (\$200,000 increase $\div 8 \times 1 / 2 \mathrm{yr}.)=\$ 67,500$
Allocation of purchase price:
Total price (10,000 shares x \$40 + \$10,000)...... \$410,000
Less inventory.
( 80,000 )
Plus liabilities
80, 000
Available for fixed assets
\$410, 000
Fair value of machinery
400, 000
Patent
\$ 10, 000

DIF: M OBJ: 6
9. On January 1, July 1, and December 31, 20X5, a condensed trial balance for Nelson Company showed the following debits and (credits):

|  | 01/01/X5 | 06/30/X5 | 12/31/X5 |
| :---: | :---: | :---: | :---: |
| Current Assets | \$ 200,000 | \$ 260,000 | \$ 340,000 |
| Plant and Equipment (net) | 500, 000 | 510, 000 | 510, 000 |
| Current Liabilities | (50, 000) | (70,000) | (60, 000) |
| Long-Term Debt | (100, 000 ) | (100, 000) | (100, 000) |
| Common Stock | (150, 000 ) | (150, 000) | (150, 000) |
| Other Paid-in Capital | (100, 000 ) | (100, 000) | (100, 000) |
| Retained Earnings, January 1 | (300, 000 ) | (300, 000) | (300, 000) |
| Dividends Declared |  |  | 10,000 |
| Revenues |  | (400, 000) | (900, 000) |
| Expenses. |  | 350, 000 | 750, 000 |

Nelson Company's books were NOT closed on June 30, 20X5.
For all of 20X5, Systems' revenues and expenses were \$1,500,000 and \$1,200,000, respectively.

Required:
Assume that, on July 1, 20X5, Systems Corporation purchased the net assets of Nelson Company for $\$ 750,000$ in cash. On this date, the fair values for certain net assets were:

Current Assets....................................... $\$ 280,000$
Plant and Equipment.................................. 600,000

On July 1, 20X1, the Plant and Equipment had a remaining life of 10 years.
(1) Record the entry on Systems' books for the July 1, 20X5 purchase of Nelson.
(2) Compute the amount of net income which will be reported for 20X5.

ANS:
1.

|  | Debit | Credit |
| :---: | ---: | ---: |
| Current Assets......... | \$280,000 |  |
| Plant and Equipment.... | 600,000 |  |
| Goodwill............. | 40,000 | $\$ 70,000$ |
| Current Liabilities.. |  | 100,000 |
| Long-Term Debt....... |  | 750,000 |

2. Net income for 20X5:

|  | Symantic | Norton | Total |
| :---: | :---: | :---: | :---: |
| Revenues. | \$1,500,000 + | \$500, 000 = | \$2,000,000 |
| Expenses. | 1,200,000 + | 400,000 = | 1,600,000 |
| Income before extra expenses |  |  | \$ 400,000 |
| Depreciation of Plant and |  |  |  |
| Equipment |  |  | 4,500 |
| Net Income for 20X1. |  |  | \$ 395,500 |

The extra depreciation on Plant and Equipment would be:
$\$ 90,000 \div 10$ years $\times 1 / 2=\$ 4,500$

DIF: D OBJ:
10. Mans Company is about to purchase the net assets of Eagle Incorporated, which has the following balance sheet:

## Assets

| Accounts receivable |  | \$ 60,000 |
| :---: | :---: | :---: |
| Inventory. |  | 100, 000 |
| Equipment | \$ 90,000 |  |
| Accumulated depreciation | (50, 000) | 40,000 |
| Land and buildings | \$ 300,000 |  |
| Accumulated depreciation | (100, 000 ) | 200, 000 |
| Goodwill |  | 60,000 |
| Total assets |  | \$460, 000 |
| Liabilities and Stockholders' Equity |  |  |
| Bonds payable. |  | \$ 80, 000 |
| Common stock, \$10 par |  | 200, 000 |
| Paid-in capital in excess of par |  | 100, 000 |
| Retained earnings. |  | 80,000 |
| Total liabilities and equity. |  | \$460, 000 |

Mans has secured the following fair values of Eagle's accounts:
Inventory.................................. \$130,000

Equipment
Land and buildings 260, 000
Bonds payable
60,000
Direct acquisition costs were $\$ 20,000$.

Required:
Record the entry for the purchase of the net assets of Eagle by Mans at the following cash prices:
a. $\$ 450,000$
b. $\$ 310,000$
C. $\$ 80,000$

ANS:
a. Accounts Receivable

$$
\begin{array}{r}
\$ 60,000 \\
130,000 \\
60,000 \\
260,000
\end{array}
$$

Inventory................................ . . .
Equipment. . . . . . . . . . . . . . . . . . . . . . . . . . . . .
Land and Buildings
Discount on Bonds Payable............ 20,000
Goodwill*..................................... 20,000
Bonds Payable.......................... .. . .
\$ 80,000
470, 000

* Price paid
(including direct acquisition costs)
Fair value of current assets
less liabilities
\$470, 000
Attributable to long-lived assets
Fair value of long-lived assets.
Excess attributable to goodwill.
\$340, 000
320, 000
\$ 20,000
=======
b. Accounts Receivable
Inventory
\$ 60,000
130, 000
Equipment*............................................. ..
Land and Buildings*................. 162,500
Discount on Bonds Payable........ 20,000
Bonds Payable
Cash.
80,000
330, 000
* Price paid
(including direct acquisition costs).. \$330,000
Fair value of current assets
less liabilities
Attributable to long-lived assets $\qquad$
130, 000
\$200,000
=======

| Asset | Fair Value | Percent of Fair |
| :---: | :---: | :---: |
| Equipment. | \$ 60,000 | 18.75 |
| Land and buildings | 260, 000 | 81.25 |
| Total. | \$320, 000 | 100.00 |

C.

| Accounts Receivable | \$ 60,000 |
| :---: | :---: |
| Inventory. | 130, 000 |
| Discount on Bonds Payable | 20,000 |

\$ 30, 000
Bonds Payable.......................
80, 000
Cash
100, 000

* Price paid
(including direct acquisition costs).. \$100,000
Fair value of current assets
less liabilities..................... 130,000
Extraordinary Gain
$\$(30,000)$
=======
DIF: M OBJ: 5, 7

11. The Blue Reef Company purchased the net assets of the Pink Coral Company on January 1, 20X1, and made the following entry to record the purchase:


Required:
Make the required entry on January 1, 20X3, for each of the two following independent contingency agreements:
a. An additional cash payment would be made on January 1, 20X3 equal to four times the amount by which average annual earnings of the Pink Coral Division exceed \$80,000 per year 20X1 and 20X2. Net income was $\$ 112,000$ in $20 X 1$ and $\$ 140,000$ in 20X2.
b. Additional shares would be issued on January 1, 20X3 to compensate for any fall in the value of Blue Reef common stock below $\$ 16$ per share. The settlement would be to cure the deficiency by issuing added shares based on their fair value on January 1, 20x3. The fair price of the shares on January 1, 20X3 was $\$ 10$.

ANS:

| a. Goodwill. | 184,000 |
| :---: | :---: |
| Cash. | 184,000 |
| $4 \times$ (average income of \$126,000-\$80,000) |  |
| b. Paid-in Capital in Excess of Par........... | 600, 000 |
| Common Stock, \$1 par. | 60,000 |
| Paid-in Capital in Excess of Par | 540,000 |
| Deficiency, \$6 x 100,000 shares. | \$600, 000 |
| Divide by \$10 fair value. | 10 |
| Added number of shares. | \$ 60,000 |

```
DIF: M
    OBJ: 8
```

12. The balance sheet information for Nickel Company is to be used in both parts (a) and (b), each of which is an independent case. On January 1, 20X1, a business combination occurred between Dime Co. and Nickel Co. On this date, a condensed balance sheet for Nickel showed:


## Required:

a. Assume the combination was an asset acquisition in which Dime purchased all of the net assets of Nickel for \$1,725,000 cash. Nickel's current assets were undervalued \$70,000; plant and equipment were undervalued \$150,000; the patent was undervalued \$80,000; and long-term debt was overvalued \$45,000.

Record the entry or entries on Dime's books to carry out the acquisition of the net assets of Nickel.
b. Assume that, in the combination, Dime acquired Nickel's net assets by issuance of new Dime common stock with a par value of $\$ 200,000$ and a fair value of $\$ 1,750,000$. In addition, Dime incurred stock issuance costs of $\$ 30,000$. For financial accounting purposes, the combination is to be accounted for as a purchase. For tax purposes, the combination is tax-free to the shareholders of Nickel Company. Assume a tax rate of $32 \%$. Current assets of Nickel are undervalued by $\$ 70,000$. The fair value of Nickel's plant and equipment was $\$ 1,050,000$. The intangible is a patent with a fair value equal to book value.

Record the entry or entries on Dime's books to carry out the acquisition of the net assets of Nickel. Provide supporting calculations.

ANS:
a. Current Assets........................... \$ 570,000
Plant and Equipment...................... 1,050,000
Intangibles - Patents
230, 000
Intangibles - Goodwill..................
Current Liabilities
Long-Term Debt
130,000*
Cash....................................
\$ 75,000
180, 000
1,725, 000
*Goodwill = \$1,725,000 price - \$1,595,000 sum of net asset
fair value.
b. Price paid........................... \$1,750,000
Current assets
\$ 570,000
Deferred tax liability............... (22,400)
32\% x (\$570,000-500,000)
Plant and equipment................... 1,050,000
Deferred tax liability................ (48,000)
32\% x (\$1,050,000 - 900,000)
Intangibles - Patents................. $\quad 150,000$
Current liabilities. . . . . . . . . .
$\begin{array}{ll}\text { Current liabilities..................... } \\ \text { Long-term debt...................... } & (75,000) \\ (225,000)\end{array}$
Current liabilities..................... $\quad(75,000)$
Long-term debt.......................
Net-of-tax value of goodwill.
Goodwill recorded as follows:
Goodwill (\$350,400 $\div 68 \%$ ).
\$515, 294
Deferred tax liability
(32\% x \$515,294)
164, 894
Net-of-tax value of goodwill
\$350,400
Current Assets
\$ 570,000
Plant and Equipment...................... 1, 050,000
Intangibles - Patents
150, 000
Intangibles - Goodwill.................. 5 515,294
Deferred Taxes Liability.............
Current Liabilities.
\$ 235, 294*
75, 000
Long-Term Debt
225, 000

Common Stock
200, 000
Paid-in Capital in Excess of Par......
Cash
1,520, 000**
30, 000
* $\$ 22,400+48,000+164,894=\$ 235,294$
** \$1,750,000 fair - \$200,000 par - \$30,000 issuance costs
DIF: D
OBJ: 8

## ESSAY

1. Goodwill is an intangible asset. There are a variety of recommendations about how intangible assets should be included in the financial statements. Discuss the recommendations for proper disclosure of goodwill. Include a comparison with disclosure of other intangible assets.

ANS:
Goodwill arises when a company is purchased and the value assigned to identifiable assets, including intangible assets, is in excess of the price paid. As such goodwill represents the value of intangible assets that could not be valued individually.

During a purchase some intangible assets such as patents, customer lists, brand names, and favorable lease agreements may exist but have not been recorded. The fair value of these intangible assets should be determined and recorded separate from the value of goodwill associated with the purchase.

Intangible assets other than goodwill will be amortized over their economic lives. The amortization method should reflect the pattern of benefits conveyed by the asset, so that a straight-line method is to be used unless another systematic method is appropriate.

Intangible assets may be reported individually, in groups, or in the aggregate on the balance sheet after fixed assets and are displayed net of cumulative amortization. Details for current and cumulative amortization, along with significant residual values, are shown in the footnotes to the balance sheet.

Goodwill is subject to impairment procedures. These concerns must be addressed related to goodwill:

1. Goodwill must be allocated to reporting units if the purchased company contains more than one reporting unit.
2. A reporting unit valuation plan must be established within one year of a purchase. This will be used as the measurement process in future periods.
3. Impairment testing is normally done on an annual basis.
4. The procedure for determining impairment must be established.
5. The procedure for determining the amount of the impairment loss, which is also the decrease in the goodwill amount recorded, must be established.

Goodwill is considered impaired when the implied fair value of reporting unit is less than the carrying value of the reporting unit's net assets. Once goodwill is written down, it cannot be adjusted to a higher amount.

Changes to goodwill must be disclosed. The disclosure would include the amount of goodwill acquired, the goodwill impairment losses, and the goodwill written off as part of a disposal of a reporting unit.

DIF: D OBJ: 4, 5, 6, 9
2. While acquisitions are often friendly, there are numerous occasions when a party does not want to be acquired. Discuss possible defensive strategies that firms can implement to fend off a hostile takeover attempt.

ANS:
GREENMAIL: A strategy is which the target company pays a premium price to purchase treasury shares. The shares purchased are owned by the hostile acquirer or shareholders who might sell to the hostile acquirer.

WHITE KNIGHT: A strategy in which the target company locates a different company to take it over, a company that is more likely to keep current management and employees in place.

SELLING THE CROWN JEWELS: A strategy in which the target company sells off vital assets in order to make the company less attractive to prospective acquirers.

POISON PILL: A strategy in which the target company issues stock rights to existing shareholders at a price far below fair value. The rights are only exercisable if an acquirer makes a bid for the target company. The resulting new shares make the acquisition more expensive.

LEVERAGED BUYOUT: A strategy in which the management of the target company attempts to purchase a controlling interest in the target company, in order to continue control of the company.

DIF: M
OBJ: 2

## Chapter 2 - Consolidated Statements: Date of Acquisition

## MULTIPLE CHOICE

1. 

| Account | Investor | Investee |
| :---: | :---: | :---: |
| Sales | \$500, 000 | \$300, 000 |
| Cost of Goods Sold | 230,000 | 170,000 |
| Gross Profit | \$270,000 | \$130, 000 |
| Selling \& Admin. |  |  |
| Expenses | 120,000 | 100,000 |
| Net Income | \$150,000 | \$ 30,000 |
| Dividends paid | 50,000 | 10,000 |

Assuming Investor owns 70\% of Investee. What is the amount that will be recorded as Net Income for the Controlling Interest?
a. \$164,000
b. \$171,000
c. \$178,000
d. \$180,000

ANS: B DIF: M OBJ: 1
2. Consolidated financial statements are designed to provide:
a. informative information to all shareholders.
b. the results of operations, cash flow, and the balance sheet in an understandable and informative manor for creditors.
c. the results of operations, cash flow, and the balance sheet as if there was a single entity.
d. subsidiary information for the subsidiary shareholders.

ANS: B
DIF: M
OBJ: 2
3. The FASB Exposure Draft assumes consolidation financial statements are appropriate even without a majority of controlling share if which of the following exists:
a. the subsidiary has the right to appoint member's of the parent company's board of directors.
b. the parent company has the right to appoint a majority of the members of the subsidiary's board of directors through a large minority voting interest.
c. the subsidiary owns a large minority voting interest in the parent company.
d. The parent company has an ability to assume the role of general partner in a limited partnership with the approval of the subsidiary's board of directors.

ANS: B DIF: M OBJ: 3
4. The SEC and FASB has recommended that a parent corporation should consolidate the financial statements of the subsidiary into its financial statements when it exercises control over the subsidiary, even without majority ownership. In which of the following situations would control NOT be evident?
a. Access to subsidiary assets is available to all shareholders.
b. Dividend policy is set by the parent.
c. The subsidiary does not determine compensation for its main employees.
d. Substantially all cash flows of the subsidiary flow to the controlling shareholders.

ANS: A DIF: E OBJ: 3
5. The goal of the consolidation process is for:
a. asset acquisitions and stock acquisitions to result in the same balance sheet.
b. goodwill to appear on the balance sheet of the consolidated entity.
c. the assets of the noncontrolling interest to be predominately displayed on the balance sheet.
d. the investment in the subsidiary to be properly valued on the consolidated balance sheet.

ANS: A DIF: E OBJ: 4
6. A subsidiary was acquired for cash in a business combination on December 31, 20X1. The purchase price exceeded the fair value of identifiable net assets. The acquired company owned equipment with a fair value in excess of the book value as of the date of the combination. A consolidated balance sheet prepared on December 31, 20X1, would
a. report the excess of the fair value over the book value of the equipment as part of goodwill.
b. report the excess of the fair value over the book value of the equipment as part of the plant and equipment account.
c. reduce retained earnings for the excess of the fair value of the equipment over its book value.
d. make no adjustment for the excess of the fair value of the equipment over book value. Instead, it is an adjustment to expense over the life of the equipment.
ANS: B
DIF: D
OBJ: 5
7. Parr Company purchased $100 \%$ of the voting common stock of Super Company for $\$ 2,000,000$. There are no liabilities. The following book and fair values are available:

|  | Book Value | Fair Value |
| :---: | :---: | :---: |
| Current assets | \$300, 000 | \$600, 000 |
| Land and building | 600, 000 | 900, 000 |
| Machinery. | 500, 000 | 600, 000 |
| Goodwill | 100, 000 | ? |

The machinery will appear on the consolidated balance sheet at $\qquad$ .
a. \$560, 000
b. \$860, 000
c. \$600, 000
d. $\$ 900,000$

ANS: A DIF: M OBJ: 5
8. Pagach Company purchased $100 \%$ of the voting common stock of Rage Company for $\$ 1,800,000$. The following book and fair values are available:

|  | Book Value | Fair Value |
| :---: | :---: | :---: |
| Current assets | \$ 150,000 | \$300, 000 |
| Land and building | 280, 000 | 280, 000 |
| Machinery. | 400, 000 | 700,000 |
| Bonds payable | (300, 000) | (250, 000) |
| Goodwill | 150, 000 | ? |

The bonds payable will appear on the consolidated balance sheet
a. at $\$ 300,000$ (with no premium or discount shown).
b. at $\$ 300,000$ less a discount of $\$ 50,000$.
c. at $\$ 0$; assets are recorded net of liabilities.
d. under a net amount of $\$ 250,000$ since it is a bargain purchase.

ANS: B DIF: M OBJ: 5
9. The investment in a subsidiary recorded as a purchase by the parent should be recorded on the parent's books at
a. underlying book value of the subsidiary's net assets.
b. the fair value of the subsidiary's net identifiable assets.
c. the fair value of the consideration given.
d. the fair value of the consideration given plus an estimated value for goodwill.

ANS: C DIF: E OBJ: 6
10. Which of the following costs of a business combination are included in the value charged to paid-in-capital in excess of par?
a. direct and indirect acquisition costs
b. direct acquisition costs
c. direct acquisition costs and stock issue costs if stock is issued as consideration
d. stock issue costs if stock is issued as consideration

ANS: D DIF: M OBJ: 6
11. When it purchased Sutton, Inc. on January 1, 20X1, Pavin Corporation issued 500,000 shares of its $\$ 5$ par voting common stock. On that date the fair value of those shares totaled $\$ 4,200,000$. Related to the acquisition, Pavin had payments to the attorneys and accountants of $\$ 200,000$, and stock issuance fees of $\$ 100,000$. Immediately prior to the purchase, the equity sections of the two firms appeared as follows:

|  | Pavin | Sutton |
| :---: | :---: | :---: |
| Common stock | \$ 4,000,000 | \$ 700,000 |
| Paid-in capital in excess of par | 7,500,000 | 900, 000 |
| Retained earnings | 5,500, 000 | 500, 000 |
| Total | \$17,000,000 | \$2,100,000 |

Immediately after the purchase, the consolidated balance sheet should report paid-in capital in excess of par of
a. \$8,900,000
b. \$9,100, 000
c. $\$ 9,200,000$
d. \$9,300,000

ANS: B DIF: M OBJ: 6
12. Judd Company issued nonvoting preferred stock with a fair value of \$1,500,000 in exchange for all the outstanding common stock of the Bath Corporation. On the date of the exchange, Bath had tangible net assets with a book value of $\$ 900,000$ and a fair value of $\$ 1,400,000$. In addition, Judd issued preferred stock valued at \$100,000 to an individual as a finder's fee for arranging the transaction. As a result of these transactions, Judd should report an increase in net assets of
a. \$900, 000
b. \$1,400,000
c. \$1,500, 000
d. \$1,600,000

ANS: D DIF: M OBJ: 6
13. In an $80 \%$ purchase accounted for as a tax-free exchange, the excess of cost over book value is $\$ 200,000$. The equipment's book value for tax purposes is \$100,000 and its fair value is \$150,000. All other identifiable assets and liabilities have fair values equal to their book values. The tax rate is $30 \%$. What is the total deferred tax liability that should be recognized on the consolidated balance sheet on the date of purchase?
a. \$12,000
b. \$60,000
c. $\$ 72,857$
d. \$85,714
ANS: D
DIF: D
OBJ: 6
14. On June 30, 20X1, Naeder Corporation purchased for cash at $\$ 10$ per share all 100, 000 shares of the outstanding common stock of the Tedd Company. The total fair value of all identifiable net assets of Tedd was $\$ 1,400,000$. The only noncurrent asset is property with a fair value of $\$ 350,000$. The consolidated balance sheet of Naeder and its wholly owned subsidiary on June 30, 20X1, should reflect
a. an extraordinary gain of \$50,000.
b. goodwill of $\$ 50,000$.
c. an extraordinary gain of $\$ 350,000$.
d. goodwill of $\$ 350,000$.

ANS: A DIF: M OBJ: 6, 7

## Pinehollow-Stonebriar Scenario

Pinehollow acquired all of the outstanding stock of Stonebriar by issuing 100,000 shares of its $\$ 1$ par value stock. The shares have a fair value of $\$ 15$ per share. Pinehollow also paid $\$ 25,000$ in direct acquisition costs. Prior to the transaction, the have companies has the following balance sheets:


The fair values of Stonebriar's inventory and plant, property and equipment are \$700,000 and \$1,000,000, respectively.
15. Refer to the Pinehollow-Stonebriar Scenario. The journal entry to record the purchase of Stonebriar would include a
a. credit to common stock for $\$ 1,500,000$.
b. credit to additional paid-in capital for $\$ 1,100,000$.
c. credit to cash for $\$ 1,525,000$.
d. debit to investment for $\$ 1,525,000$.

ANS: D DIF: M OBJ: 6, 7
16. Goodwill associated with the purchase of Stonebriar is $\qquad$ .
a. \$100,000
b. \$125,000
c. \$300, 000
d. $\$ 325,000$

ANS: B DIF: M OBJ: 6, 7
17. On April 1, 20X1, Paape Company paid $\$ 950,000$ for all the issued and outstanding stock of Simon Corporation in a transaction properly recorded as a purchase. The recorded assets and liabilities of the Prime Corporation on April 1, 20X1, follow:


On April 1, 20X1, it was determined that the inventory of Paape had a fair value of \$190,000, and the property and equipment (net) had a fair value of $\$ 560,000$. What is the amount of goodwill resulting from the business combination?
a. \$0
b. \$120, 000
c. \$300, 000
d. \$230,000

ANS: C DIF: D OBJ: 7
18. Paro Company purchased $80 \%$ of the voting common stock of Sabon Company for $\$ 900,000$. There are no liabilities. The following book and fair values are available:

|  | Book Value | Fair Value |
| :---: | :---: | :---: |
| Current assets | \$100, 000 | \$200, 000 |
| Land and building | 200, 000 | 200, 000 |
| Machinery. | 300, 000 | 600, 000 |
| Goodwill | 100,000 | ? |

Using the parent company concept, the machinery will appear on the consolidated balance sheet at $\qquad$ _.
a. \$600,000
b. \$540, 000
c. $\$ 480,000$
d. \$300, 000

ANS: B
DIF: M
OBJ: 8
19. When a company purchases another company that has existing goodwill and the transaction is accounted for as a stock acquisition, the goodwill should be treated in the following manner.
a. Goodwill on the books of an acquired company should be disregarded.
b. Goodwill is recorded prior to recording fixed assets.
c. Goodwill is not recorded until all assets are stated at full fair value.
d. Goodwill is treated consistent with other tangible assets.

ANS: C DIF: M OBJ: 9
20. The SEC requires the use of push-down accounting in some specific situations. Push-down accounting results in:
a. goodwill be recorded in the parent company separate accounts.
b. eliminating subsidiary retained earnings and paid-in capital in excess of par.
c. reflecting fair values on the subsidiary's separate accounts.
d. changing the consolidation worksheet procedure because no adjustment is necessary to eliminate the investment in subsidiary account.
ANS: C
DIF: M
OBJ: 10

## PROBLEM

1. The Income Statements of Ruger Inc. and Nina Co. are:

|  | Ruger | Nina |
| :---: | :---: | :---: |
| Sales | \$1, 000, 000 | \$400, 000 |
| Cost of Goods Sold | 500, 000 | 150, 000 |
| Gross Profit | 500,000 | 250,000 |
| Sales and Administration Expenses | 300, 000 | 170,000 |
| Net Income | \$ 200,000 | \$ 80,000 |
| Dividends Paid | \$60, 000 | \$20, 000 |

Compute Ruger's Net Income based upon the following ownership of Nina Co.
a. $10 \%$
b. $40 \%$
c. $80 \%$

ANS:

| a. | Ruger Net Income from Operations | \$200, 000 |
| :---: | :---: | :---: |
|  | Dividend Revenue (10\% x \$20,000) | 2,000 |
|  | Net Income | \$202,000 |
|  | Ruger Net Income from Operations | \$200, 000 |
|  | Income from Investment ( $40 \% \times$ \$80,000) | 32,000 |
|  | Net Income | \$232,000 |
| c. | Controlling Income Ruger + Nina | \$280, 000 |
|  | Noncontrolling Interest (20\% x \$80,000) | (16,000) |
|  | Controlling Interest | \$264,000 |

DIF: E OBJ: 1
2. Supernova Company had the following summarized balance sheet on December 31, 20X1:

| Assets |  |  |  |
| :---: | :---: | :---: | :---: |
| Accounts receivable |  | \$ | 200,000 |
| Inventory. |  |  | 450, 000 |
| Property and plant (net) |  |  | 600, 000 |
| Goodwill |  |  | 150, 000 |
| Total |  |  | 400, 000 |

## Liabilities and Equity



The fair value of the inventory and property and plant is \$600,000 and \$850,000, respectively.

Assume that Redstar Corporation exchanges 45,000 of its $\$ 3$ par value shares of common stock, when the fair price is $\$ 4 /$ share, for $100 \%$ of the common stock of Supernova Company. Redstar incurred direct acquisition costs of $\$ 5,000$ and stock issuance costs of $\$ 5,000$.

Required:
a. What journal entry will Redstar Corporation record for the investment in Supernova?
b. Prepare a supporting determination and distribution of excess schedule
c. Prepare Redstar's elimination and adjustment entry for the acquisition of Supernova.

ANS:
(100\% purchase with Extraordinary Gain)

| a. Investment in Supernova $(45,000 \times \$ 4)+\$ 5,000$ | 185,000 |  |
| :---: | ---: | ---: |
| Common Stock $\$ 3$ par value |  | 135,000 |
| Paid-in-capital excess of par | 45,000 |  |
| Cash (direct acquisition costs) | 5,000 |  |
| Paid-in capital excess of par | 5,000 |  |
| Cash (to investment company) |  | 5,000 |

b. Determination and Distribution of Excess Schedule

Price paid for investment \$ 185,000
Less book value of
interest purchased:
Common Stock \$5 par \$300,000
Paid-in capital in excess
of par
Retained Earnings 100,000
Total Equity $\quad \$ 800,000$
Ownership interest 100\%
Book value exceeds cost
Adjustments
Accounts Receivable
Inventory (\$600, 000
-
\$450, 000)
Property and Plant

| \$ 300, 000 |  |  |
| :---: | :---: | :---: |
| 400, 000 |  |  |
| 100, 000 |  |  |
| \$ 800,000 |  |  |
| 100\% | 800, 000 |  |
|  | \$ (615, 000 ) | Debit |

Goodwill
Extraordinary Gain
Total Adjustments
\$(615, 000)
=========
c. Worksheet entry.

Common Stock \$5 Par \$300,000
Paid-in capital in excess of par 400,000
Retained Earnings 100, 000
Investment
(Alternative Credits:
Investment in Supernova Excess

Investment in Supernova
615, 000
Inventory
Property and Plant Goodwill 150, 000 Extraordinary Gain

600, 000
150, 000
15, 000
(Alternative Debit:
Excess 615,000)

DIF: M OBJ: 2, 3, 4, 5, 6
3. On December 31, 20X1, Priority Company purchased $80 \%$ of the common stock of Subsidiary Company for $\$ 1,550,000$. On this date, Subsidiary had total owners' equity of $\$ 650,000$ (common stock $\$ 100,000$; other paid-in capital, \$200,000; and retained earnings, \$350,000). Any excess of cost over book value is due to the under or overvaluation of certain assets and liabilities. Assets and liabilities with differences in book and fair values are provided in the following table:

|  | Book <br> Value |
| :--- | :--- | | Fair |
| :---: |
| Value |

Remaining excess, if any, is due to goodwill.

Required:
a. Using the information above and on the separate worksheet, prepare a schedule to determine and distribute the excess of cost over book value.
b. Complete the Figure 2-1 worksheet for a consolidated balance sheet as of December 31, 20X1.

ANS:
a. Determination and Distribution of Excess of Cost over Book Value Schedule:

Price paid for investment in Subsidiary Company................. \$1,550,000
Less Book value of interest acquired: Common stock...................... \$100,000
Other paid-in capital............. 200,000
Retained earnings ................ 350,000
Total stockholders' equity........ \$650,000
Interest acquired.................. 80\%
520, 000
Excess of cost over book value (debit balance)
\$1, 030, 000
Allocable to:
Current assets (\$300,000 x .80).... \$240,000 Dr.
Accounts Receivable (\$50,000 x . 80).
Land (\$500,000 x .80)..............
Building and Equipment.. (\$200, 000 x . 80)
Current Liabilities (\$75,000 x .80).
Premium on Bonds (\$80,000 x .80)...
Goodwill
400,000 Dr.
160,000 Dr.
60,000 Cr.
64,000 Cr.
\$394,000 Dr.
b. For the worksheet solution, please refer to Answer 2-1.

Eliminations and Adjustments:
(EL) Eliminate $80 \%$ of the subsidiary's equity accounts against the investment in subsidiary account.
(D) Allocate the excess of cost over book value to net assets as required by the determination and distribution of excess schedule.

DIF: M OBJ: 4, 5, 6, 7, 8
4. On December 31, 20X1, Parent Company purchased $80 \%$ of the common stock of Subsidiary Company for $\$ 280,000$. On this date, Subsidiary had total owners' equity of $\$ 250,000$ (common stock $\$ 20,000$; other paid-in capital, $\$ 80,000$; and retained earnings, $\$ 150,000$ ). Any excess of cost over book value is due to the under or overvaluation of certain assets and liabilities. Inventory is undervalued \$5,000. Land is undervalued \$20,000. Buildings and equipment have a fair value which exceeds book value by $\$ 30,000$. Bonds payable are overvalued $\$ 5,000$. The remaining excess, if any, is due to goodwill.

## Required:

a. Using the information above and on the separate worksheet, prepare a schedule to determine and distribute the excess of cost over book value. Use the parent company concept (pro rata fair value approach) in any revaluation of net assets.
b. Complete the Figure 2-2 worksheet for a consolidated balance sheet as of December 31, 20X1.

ANS:
a. Determination and Distribution of Excess of Cost over Book Value Schedule:

Price paid for investment in Subsidiary
Company....................................... \$280,000

Less book value of interest acquired:
Common stock.................................. \$ 20,000
Other paid-in capital........................ 80, 000
Retained earnings................................. . . 150,000
Total stockholders' equity.................... \$250,000
Interest acquired................................ 80\% 200,000
Excess of cost over book value
(debit balance)
\$ 80, 000
Allocable to:
Inventory (\$5,000 x 80\%)................... \$ 4,000
Land (\$20,000 x 80\%)......................... 16,000
Building and Equipment (\$30,000 x 80\%)... 24,000
Discount on Bonds (\$5,000 x 80\%).......... 4,000
Goodwill...........................................
$\$ 32,000$
b. For the worksheet solution, please refer to Answer 2-2.

Eliminations and Adjustments:
(EL) Eliminate 80\% of the subsidiary's equity accounts against the investment in subsidiary account.
(D) Allocate the excess of cost over book value to net assets as required by the determination and distribution of excess schedule.

DIF: M OBJ: 4, 5, 6, 7, 8
5. On January 1, 20X1, Panther Company purchased $100 \%$ of the common stock of Seahawk Company for $\$ 1,410,000$. On this date, Seahawk had total owners' equity of $\$ 1,150,000$.

On December 31, 20X4, Seahawk Company had reported an operating loss before taxes of $\$ 175,000$. Assume a tax rate of $35 \%$. Since a carryback of $\$ 75,000$ was available, a tax refund receivable of $\$ 26,250$ was recorded and a net-of-tax loss of $\$ 148,750$ was reported. At the date of purchase, Panther Company has concluded that the balance of the tax benefit of the operating loss will be realized in 20X1 when a consolidated tax return is prepared.

On January 1, 20X1, the excess of cost over book value is due to the tax benefit above, to a $\$ 30,000$ undervaluation of Bonds Payable, to an undervaluation of land, building and equipment, and to goodwill. The fair value of land is $\$ 500,000$. The fair value of building and equipment is $\$ 750,000$. The book value of the land is $\$ 400,750$. The book value of the building and equipment is $\$ 613,000$.

Required:
a. Using the information above and on the separate worksheet, complete a schedule for determination and distribution of the excess of cost over book value.
b. Complete the Figure 2-3 worksheet for a consolidated balance sheet as of January 1, 20X1.

ANS:
a. Determination and Distribution of Excess of Cost Over Book Value Schedule:

Price paid for investment in Seahawk Company.................. \$1,410,000
Less book value of interest acquired: Common stock....................... \$ 200,000
Other paid-in capital............. 300,000
Retained earnings................. 650,000
Total stockholders' equity......... \$1,150,000
Interest acquired................. 100\% 1,150,000
Excess of cost over book value
(debit balance)..................... \$ 260,000

Allocable to:
Tax Benefit of Operating Loss Carryforward................... \$ 26,250
Land............................. 99,250 Dr.
Building........................... 137,000 Dr.
Premium on bonds payable ......... (30,000)Cr.
Goodwill............................
\$ 27,500 Dr.
b. For the worksheet solution, please refer to Answer 2-3.

Eliminations and Adjustments:
(EL) Eliminate $100 \%$ of the subsidiary's equity accounts against the investment in subsidiary account.
(D) Allocate the excess of cost over book value to net assets as required by the determination and distribution of excess schedule.

DIF: D OBJ: 4, 5, 6, 7
6. On January 1, 20X1, Parent Company purchased $80 \%$ of the common stock of Subsidiary Company for $\$ 248,800$. On this date, Subsidiary had total owners' equity of \$240,000.

On December 31, 20X4, Subsidiary Company had reported an operating loss before taxes of $\$ 40,000$. Assume a tax rate of $30 \%$. Since a carryback of \$20, 000 was available, a tax refund receivable of $\$ 6,000$ was recorded and a net-of-tax loss of $\$ 34,000$ was reported. At the date of purchase, Parent Company has concluded that the balance of the tax benefit of the operating loss will be realized in 20X1 when a consolidated tax return is prepared.

On January 1, 20X1, the excess of cost over book value is due to the tax benefit above, to a \$5,000 undervaluation of Bonds Payable, to an undervaluation of land, building and equipment, and to goodwill. The fair value of land is $\$ 40,000$. The fair value of building and equipment is $\$ 200,000$. The book value of the land is $\$ 30,000$. The book value of the building and equipment is \$180,000.

Required:
a. From the information above and on the separate worksheet, complete a schedule for determination and distribution of the excess of cost over book value. Use the parent company concept (pro rata fair value approach) in any revaluation of net assets.
b. Complete the Figure 2-4 worksheet for a consolidated balance sheet as of January 1, 20X1.

ANS:
a. Determination and Distribution of Excess of Cost Over Book Value Schedule:

Price paid for investment in Subsidiary Company................................... \$248,800
Less book value of interest acquired: Common stock............................. \$ 50,000 Other paid-in capital.................... 70, 000 Retained earnings......................... 120, 000 Total stockholders' equity............ \$240,000 Interest acquired......................... $\quad$ 80\% 192,000

Excess of cost over book value
(debit balance).......................... \$ 56,800

Allocable to:
Tax Benefit of Operating Loss
Carryforward (\$6,000 x 80\%)........ \$ 4,800 Dr.
Land ( $\$ 10,000 \times 80 \%$ ).....................
Building (\$20,000 x 80\%)................
Premium on Bonds Payable ( $\$ 5,000 \times 80 \%$ )
Goodwill

```
========
```

b. For the worksheet solution, please refer to Answer 2-4.

Eliminations and Adjustments:
(EL) Eliminate $80 \%$ of the subsidiary's equity accounts against the investment in subsidiary account.
(D) Allocate the excess of cost over book value to net assets as required by the determination and distribution of excess schedule.

DIF: D OBJ: 4, 5, 6, 7, 8
7. On January 1, 20X1, Parent Company purchased $100 \%$ of the common stock of Subsidiary Company for \$280,000. On this date, Subsidiary had total owners' equity of $\$ 240,000$.

On January 1, 20X1, the excess of cost over book value is due to a $\$ 15,000$ undervaluation of inventory, to a $\$ 5,000$ overvaluation of Bonds Payable, and to an undervaluation of land, building and equipment. The fair value of land is $\$ 50,000$. The fair value of building and equipment is $\$ 200,000$. The book value of the land is $\$ 30,000$. The book value of the building and equipment is $\$ 180,000$.

Required:
a. Using the information above and on the separate worksheet, complete a schedule for determination and distribution of the excess of cost over book value.
b. Complete the Figure 2-5 worksheet for a consolidated balance

```
sheet as of January 1, 20X1.
```

ANS:
a. Determination and Distribution of Excess of Cost Over Book Value Schedule:

Price paid for investment in Subsidiary

Company.............................
Less Book value of interest acquired: Common stock Other paid-in capital............. Retained earnings Total ............................ \$240,000 Less interest acquired............ 100\%
Excess of cost over book value (debit balance)
.....................
$\qquad$ 240, 000

| $\$ 50,000$ |  |
| ---: | ---: |
| 70,000 |  |
| 120,000 |  |
| $\$ 240,000$ |  |
| $100 \%$ |  |
|  | $\$ 40,000$ <br> $=======$ |

Allocable to:
Inventory........................ \$15,000 Dr.
Discount on bonds payable.........
Remainder to other long-lived assets:
Land.
Building
Goodwill
5,000 Dr.

$$
\$ 20,000
$$

$$
16,000 \mathrm{Dr} .
$$

$$
\begin{aligned}
4,000 \\
\$ \quad 0
\end{aligned}
$$

======

| Asset | $\begin{gathered} 100 \% \text { of } \\ \text { Fair } \\ \text { Value } \end{gathered}$ | Fraction of Fair Value | Total Assigned Value* | Allocated Assigned Value | Book Value | $\begin{aligned} & 100 \% \\ & \text { Increase } \\ & \text { (Decrease) } \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Land | \$ 50,000 | 1/5 | \$230,000 | \$ 46,000 | \$ 30,000 | \$16,000 |
| Building | 200, 000 | 4/5 | 230, 000 | 184, 000 | 180, 000 | 4, 000 |
|  | \$250,000 |  |  | \$230,000 | \$210,000 | \$20,000 |

* Book value of Land (\$30,000) and Building (\$180,000) plus \$20,000 remaining excess of cost over book value.
b. For the worksheet solution, please refer to Answer 2-5.

Eliminations and Adjustments:
(EL) Eliminate $100 \%$ of the subsidiary's equity accounts against the investment in subsidiary account.
(D) Allocate the excess of cost over book value to net assets as required by the determination and distribution of excess schedule.

DIF: M OBJ: 4, 5, 6, 7
8. On January 1, 20X1, Parent Company purchased $90 \%$ of the common stock of Subsidiary Company for $\$ 252,000$. On this date, Subsidiary had total owners' equity of \$240,000.

On January 1, 20X1, the excess of cost over book value is due to a $\$ 15,000$ undervaluation of inventory, to a $\$ 5,000$ overvaluation of Bonds Payable, and to an undervaluation of land, building and equipment. The fair value of land is $\$ 50,000$. The fair value of building and equipment is $\$ 200,000$. The book value of the land is $\$ 30,000$. The book value of the building and equipment is \$180,000.

Required:
a. From the information above and on the separate worksheet, complete a schedule for determination and distribution of the excess of cost over book value. Use the parent company concept (pro rata fair value approach) in any revaluation of net assets.
b. Complete the Figure 2-6 worksheet for a consolidated balance sheet as of January 1, 20X1.

ANS:
a. Determination and Distribution of Excess of Cost Over Book Value Schedule:

Price paid for investment in Subsidiary Company.................................. \$252,000
Less book value of interest acquired: Common Stock............................ \$ 50,000 Other Paid-in Capital.................. 70,000 Retained Earnings........................ 120,000 Total ................................... \$240,000 Less Interest acquired................ 90\%

216,000
Excess of cost over book value (debit balance) $\qquad$ \$ 36,000
========
Allocable to:
Inventory ( $\$ 15,000 \times 90 \%$ )............. \$13,500 Dr.
Discount on bonds payable
(\$5,000 x 90\%).............................
Remainder to other long-lived assets:

| 4,500 | Dr. |
| ---: | :--- |
| $\$ 18,000$ |  |
| 14,400 | Dr. |
| 3,600 | Dr. |
| $\$===$ |  |
| $===$ |  |


| Alternative <br> Asset | $100 \%$ of Fair Value | Fraction of Fair Value | Total Assigned Value* | Allocated Assigned Value | 100\% of Book Value |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Land..... | \$ 50,000 | 1/5 | \$230, 000 | \$ 46,000 | \$ 30,000 |
| Building | 200,000 | 4/5 | 230,000 | 184,000 | 180,000 |
|  | \$250,000 |  |  | \$230,000 | \$210,000 |

Alternative 1 continued

| Asset | 100\% | 90\% |
| :---: | :---: | :---: |
|  | Increase | Increase |
|  | (Decrease) | (Decrease) |
| Land. | \$16,000 | \$14,400 |
| Building. | 4,000 | 3,600 |
|  | \$20,000 | \$18,000 |

* If remaining allocable cost on a $90 \%$ purchase is $\$ 18,000$, it would be $\$ 20,000$ on a $100 \%$ purchase. Book value of $\$ 210,000$ must be increased by $\$ 20,000$ to get total allocable cost. Increase of decrease for $100 \%$ purchase must then be multiplied by $90 \%$ to derive correct writeup.


9. 

|  | Pepper Co. | Salt Inc. | Consolidated Financial Statements |
| :---: | :---: | :---: | :---: |
| Cash | \$ 26,000 | \$ 20,000 | \$ 46,000 |
| Accounts Receivable, net | 20, 000 | 30, 000 | 50,000 |
| Inventory | 125, 000 | 110, 000 | 270,000 |
| Land | 30,000 | 80,000 | 124,000 |
| Building and Equipment | 320, 000 | 160, 000 | 459, 000 |
| Investment in Subsidiary | 279, 000 | - | - |
| Goodwill | - | - | 41,000 |
| Total Assets | \$800, 000 | \$400, 000 | \$990, 000 |
| Accounts Payable | \$ 40, 000 | \$ 40,000 | \$ 80,000 |
| Other Liabilities | 70,000 | 60, 000 | 130, 000 |
| Common Stock | 400, 000 | 200, 000 | 400, 000 |
| Retained Earnings | 290,000 | 100,000 | 290,000 |
| Noncontrolling Interest | - | - | 90,000 |
| Total Liabilities \& |  |  |  |
| Stockholders' Equity | \$800, 000 | \$400, 000 | \$990, 000 |

Answer the following based upon the above financial statements:
a. How much did Pepper Co. pay to acquire Salt Inc.?
b. What percentage ownership did Pepper Co. acquire of Salt Inc.?
c. What was the fair value of Salt's Inventory at the time of acquisition?
d. Was the book value of Salt's Building and Equipment overvalued or undervalued relative to the Building and Equipment's fair value at the time of acquisition?

ANS:
a. Investment in Subsidiary \$279,000
b. Noncontrolling Interest Subsidiary Equity

$$
\frac{90,000}{200,000+100,000}=30 \%
$$

$100 \%-30 \%=70 \%$
c. Consolidated Inventory

Pepper Co. Inventory
\$270, 000
Salt Inc. Inventory
\$125, 000
Total Inventory Book Value
110, 000
Adjustment
Ownership \%
\$235,000
\$ 35,000
$70 \%=50,000$
d. The Building and Equipment's book value was overvalued relative to the fair value.
$\$ 320,000+\$ 160,000=\$ 480,000>\$ 459,000 .(\$ 21,000 / 70 \%=\$ 30,000)$

DIF: D OBJ: 4, 5, 6
10. On January 1, 20X1, Parent Company acquired $80 \%$ of the common stock of Subsidiary Company by issuing Parent common stock with a fair value of $\$ 250,800$. On this date, Subsidiary had total owners' equity of $\$ 240,000$.

Even though the combination must be accounted for as a purchase, it is a tax-free combination for Federal income tax purposes. The corporate tax rate is 30\%.

On January 1, 20X1, the excess of cost over book value is due to an undervaluation of land, building, and goodwill. The fair value of land is $\$ 40,000$. The fair value of building is $\$ 200,000$. The book value of the land is $\$ 30,000$. The book value of the building is $\$ 180,000$.

Required:
a. From the information above and on the separate worksheet, complete a schedule for determination and distribution of the excess of cost over book value. Use the parent company concept (prorata fair value approach) in any writeup of net assets.
b. Complete the Figure 2-7 worksheet for a consolidated balance sheet as of January 1, 20X1.

ANS:
a. Determination and Distribution of Excess of Cost Over Book Value Schedule:

Price paid for investment in Subsidiary Company................................... \$250,800
Less book value of interest acquired: Common Stock............................. \$ 50,000 Other Paid-in Capital................... 70, 000 Retained Earnings......................... 120,000 Total ...................................... \$240,000 Less Interest acquired.................. 80\% 192,000
Excess of cost over book value (debit balance)
$\$ 58,800$
$=======$

| Land (\$10,000 x 80\%) | \$ 8,000 Dr. |
| :---: | :---: |
| Deferred Tax Liability ( $\$ 8,000 \times 30 \%$ ) | $(2,400) \mathrm{Cr}$. |
| Building (\$20,000 x 80\%) | 16,000 Dr. |
| Deferred Tax Liability (\$16,000 x 30\%) | $(4,800) \mathrm{Cr}$. |
| Goodwill (Net of deferred tax liability) | \$42,000 Dr |

To be distributed
Goodwill ( $\$ 42,000 \div 70 \%$ )............. $\$ 60,000 \mathrm{Dr}$.

Deferred Tax Liability.. $30 \%$ x \$60,000) Net of tax value of Goodwill.........
b. For the worksheet solution, please refer to Answer 2-7.

Eliminations and Adjustments:
(EL) Eliminate $80 \%$ of the subsidiary's equity accounts against the investment in subsidiary account.
(D) Allocate the excess of cost over book value to net assets as required by the determination and distribution of excess schedule.

DIF: D OBJ: 4, 5, 6, 7, 8
11. Supernova Company had the following summarized balance sheet on December 31, 20X1:

| Assets |  |
| :---: | :---: |
| Accounts receivable | \$ 200, 000 |
| Inventory. | 450, 000 |
| Property and plant (net) | 600, 000 |
| Goodwill. | 150, 000 |
| Total | \$1,400,000 |
| Liabilities and Equity |  |
| Notes payable. | \$ 600,000 |
| Common stock, \$5 par | 300, 000 |
| Paid-in capital in excess of par | 400, 000 |
| Retained earnings | 100, 000 |
| Total | \$1,400, 000 |

The fair value of the inventory and property and plant is $\$ 600,000$ and \$850,000, respectively.

Required:
a. Assume that Redstar Corporation purchases $100 \%$ of the common stock of Supernova Company for $\$ 1,800,000$. What value will be assigned to the following accounts of the Supernova Company when preparing a consolidated balance sheet on December 31, 20X1?
(1) Inventory
(2) Property and plant
(3) Goodwill
(4) Noncontrolling interest
b. Prepare a supporting determination and distribution of excess schedule.

ANS:

| a. (1) Inventory | $\$ 600,000$ | $\$ 450,000 \mathrm{BV}+\$ 150,000$ |  |
| :--- | ---: | ---: | ---: |
| (2) Property and plant | $\$ 850,000$ | $\$ 600,000 \mathrm{BV}+\$ 250,000$ |  |
| (3) Goodwill | $\$ 750,000$ |  |  |
| (4) Noncontrolling interest | 0 | No NCI |  |

b. Determination and Distribution of Excess Schedule:

| Price paid |  | \$1, 800, 000 |
| :---: | :---: | :---: |
| Equity of Supernova: |  |  |
| Common stock, \$5 par | \$300, 000 |  |
| Paid-in capital in excess of par | 400, 000 |  |
| Retained earnings | 100, 000 |  |
| Total equity | \$800,000 |  |
| Interest purchased | 100\% | 800, 000 |
| Excess cost over book value |  | 1,000,000 |
| Increase inventory |  | 150, 000 |
| Available for fixed assets |  | \$ 850,000 |
| Add existing goodwill |  | 150, 000 |
| Adjusted available for fixed assets |  | \$1,000,000 |
| Increase property and plant |  | 250, 000 |
| Goodwill (total) |  | \$ 750,000 |

12. Saturn Company had the following summarized balance sheet on December 31, 20X1:

| Assets |  |
| :---: | :---: |
| Accounts receivable | \$ 180,000 |
| Inventory | 500,000 |
| Property and plant (net) | 600,000 |
| Goodwill | 120,000 |
| Total | \$1,400,000 |
| Liabilities and Equity |  |
| Notes payable. | \$ 600,000 |
| Common stock, \$5 par | 300, 000 |
| Paid-in capital in excess of par | 400, 000 |
| Retained earnings | 100, 000 |
| Total | \$1,400,000 |

The fair value of the inventory and property and plant is \$600,000 and \$850,000, respectively.

Required:
a. Assume that Return Corporation purchases $80 \%$ of the common stock of Saturn Company for $\$ 600,000$. What value will be assigned to the following accounts of the Saturn Company when preparing a consolidated balance sheet on December 31, 20X1?
(1) Inventory
(2) Property and plant
(3) Goodwill
(4) Noncontrolling interest
b. Prepare a supporting determination and distribution of excess schedule.

ANS:


DIF: M OBJ: 6, 7, 8, 9
13. Pluto purchased $100 \%$ of the common stock of the Saturn Company for \$325,000 when Saturn had the following balance sheet:

Assets



The fair value of the plant is \$250,000.
The purchase is a tax free exchange as to the seller; thus, the purchaser will be able to depreciate only the book value of the assets purchased. The applicable tax rate is 30\%.

## Required:

a. At what amount will the following accounts be listed on the consolidated balance sheet prepared on the date of purchase?
(1) Inventory
(2) Property and plant
(3) Deferred tax liability
(4) Goodwill
b. Prepare a supporting determination and distribution of excess schedule.

ANS:
a. (1) Inventory
\$ 60,000
(2) Property and plant
\$250, 000
(3) Deferred tax liability
\$( 32,143 )
(4) Goodwill
\$ 47, 143
b. Determination and Distribution of Excess Schedule:

| Price paid |  | \$325, 000 |
| :---: | :---: | :---: |
| Equity of Supernova: |  |  |
| Common stock, \$5 par | \$100, 000 |  |
| Paid-in capital in excess of par | 50,000 |  |
| Retained earnings | 100,000 |  |
| Total equity. | \$250,000 |  |
| Interest purchased | 100\% | 250,000 |
| Excess cost over book value |  | \$ 75,000 |
| Increase property and plant. | \$ 50, 000 |  |
| Deferred tax liability (.3 x \$50,000) | (15, 000) | 35,000 |
| Goodwill (net) |  | \$40,000 |

Distributed:
Goodwill (\$40,000 $\div .7$ ) \$ 57,143
Deferred $\operatorname{tax}(\$ 57,143 \times .3) \frac{(17,143)}{\$ 40,000}$
=======

DIF: D OBJ: 6, 7
14. Fortuna Company issued 51,500 shares of $\$ 1$ par stock, with a fair value of $\$ 21$ per share, for $80 \%$ of the outstanding shares of Acappella Company. The firms had the following separate balance sheets prior to the acquisition:


Book values equal fair values for the assets and liabilities of Acappella Company, except for the property, plant, and equipment, which has a fair value of $\$ 1,600,000$.

## Required:

a. Prepare a determination and distribution of excess schedule.
b. Provide all eliminations on the partial balance sheet worksheet provided in Figure 2-8 and complete the noncontrolling interest column.

ANS:
a. Determination and Distribution of Excess Schedule:

```
Price paid (51,500 shares x $21 fair value) $1,081,500
Less interest acquired:
    Common stock ($10 par)............... $ 200,000
    Paid-in capital in excess of par...... 300,000
    Retained earnings..................... 1,200,000
            Total stockholders' equity.......... $1,700,000
            Interest acquired.................. 80% 1,360,000
Excess book value over cost............ $ 278,500
Less needed previously recorded goodwill
    (80% x $240,000)..................... 192,000
Left to decrease property, plant, and
    equipment
    $ 86,500
```

b. For the worksheet solution, please refer to Answer 2-8.
Eliminations and Adjustments:
(1) Eliminate $80 \%$ of subsidiary equity against the investment account.
(2) Distribute excess according to the determination and distribution of excess schedule.

```
DIF: M OBJ: 4, 6, 7, 8, 9
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## ESSAY

1. Historically the SEC and the FASB have considered majority ownership to define control as a necessary condition prior to preparing consolidating financial statements. Now, both of these organizations are considering a change in the definition of control.

Discuss the historical perspective on consolidation and now under what situations control would be considered appropriate without majority ownership. In your response describe the function of consolidated financial statements.

ANS :
Consolidated financial statements are designed to present the results of operations, cash flow and the balance sheet of the parent and its subsidiaries as if they were a single company. Historically, ownership in excess of $50 \%$ was considered necessary for control. Prior to FAS 94 non-homogeneous subsidiaries were not consolidated. Under FAS 94 the only exceptions for consolidation relate to control being necessary, or it does not rest with the majority owner.

Currently, FASB would presume control to exist, without majority ownership, if any of the following situations exist:

* The parent company has the right to appoint the majority of members to the board of directors.
* The parent can elect the majority of members to the board of directors with a large minority (less than $50 \%$ ) voting interest.
* The parent company is the only general partner in a limited partnership and no other partner group may dissolve the partnership or remove the general partner.
The parent has the unilateral ability to assume the role of general partner in a limited partnership.

DIF: M OBJ: 2, 3
2. Discuss the conditions under which the FASB would assume a presumption of control. Additionally, under what circumstances might the FASB require consolidation even though the parent does not control the subsidiary?

ANS:
The FASB presumes that control exists if one company owns over $50 \%$ of the voting interest in another company or has an unconditional right to appoint a majority of the members of another company's controlling body. Additionally, in the absence of evidence to the contrary, one or more of the following conditions would lead to a presumption of control:

1. Ownership of a large noncontrolling interest where no other party has a significant interest.
2. Ownership of securities or unconditional rights in the company that can be converted into securities that would cause a controlling interest to exist.
3. The acquiring company has the unconditional right to dissolve the entity whose interest was acquired and assume control of the assets.
4. A relationship with another entity that assures control through provisions in a charter, bylaws, or trust agreement.
5. A legal obligation created with the controlled entity that requires substantially all cash flows and other economic benefits to flow to the controlling entity.
6. A sole general partner in a limited partnership where no other party may dissolve the partnership or remove the general partner.

DIF: M OBJ: 3
3. A parent company purchases an $80 \%$ interest in a subsidiary at a price high enough to revalue all assets and allow for goodwill on the interest purchased. If "push down accounting" were used in conjunction with the "economic entity concept," what unique procedures would be used that are not normally used for such an $80 \%$ purchase?

ANS:
All assets including goodwill would be adjusted 100\%, rather than 80\%, of the way to fair value. This would mean that the noncontrolling interest would be increased for $20 \%$ of the total write-ups through the noncontrolling interest in retained earnings. The method would also be unique in that the asset adjustments would be made directly on the books of the subsidiary rather than on the consolidated worksheet.

DIF: D
OBJ: 8, 10
[[Insert FIGURE 2-1 from Excel Spreadsheet]]
[[Insert ANSWER 2-1 from Excel spreadsheet]]
[[Insert FIGURE 2-2 from Excel spreadsheet]]
[[Insert ANSWER 2-2 from Excel spreadsheet]]
[[Insert FIGURE 2-3 from Excel spreadsheet]]
[[Insert ANSWER 2-3 from Excel spreadsheet]]
[[Insert FIGURE 2-4 from Excel spreadsheet]]
[[Insert ANSWER 2-4 from Excel spreadsheet]]
[[Insert FIGURE 2-5 from Excel spreadsheet]]
[[Insert ANSWER 2-5 from Excel spreadsheet]]
[[Insert FIGURE 2-6 from Excel spreadsheet]]
[[Insert ANSWER 2-6 from Excel spreadsheet]]
[[Insert FIGURE 2-7 from Excel spreadsheet]]
[[Insert ANSWER 2-7 from Excel spreadsheet]]
[[Insert FIGURE 2-8 from Excel spreadsheet]]
[[Insert ANSWER 2-8 from Excel spreadsheet]]

## Chapter 3 - Consolidated Statements: Subsequent to Acquisition

## MULTIPLE CHOICE

1. Pedro purchased $100 \%$ of the common stock of the Sanburn Company on January 1, 20X1, for $\$ 500,000$. On that date, the stockholders' equity of Sanburn Company was $\$ 380,000$. On the purchase date, inventory of Sanburn Company, which was sold during 20X1, was understated by $\$ 20,000$. Any remaining excess of cost over book value is attributable to patent with a 20-year life. The reported income and dividends paid by Sanburn Company were as follows:

|  | 20x1 | 20X2 |
| :---: | :---: | :---: |
| Net income | \$80,000 | \$90,000 |
| Dividends paid | 10,000 | 10,000 |

Using the simple equity method, which of the following amounts are correct?

|  | Investment <br>  <br>  <br>  <br> a. Income <br> a. |
| :--- | :---: |
| b. | $\$ 80,000$ |
| c. | $\$ 70,000$ |
| d. | $\$ 70,000$ |
|  | $\$ 80,000$ |


| Investment Account Balance <br> December 31, 20X1 |
| :---: |
| $\$ 570,000$ |
| $\$ 570,000$ |
| $\$ 550,000$ |
| $\$ 550,000$ |

ANS: A DIF: M OBJ: 1
2. Pedro purchased $100 \%$ of the common stock of the Sanburn Company on January 1, 20X1, for $\$ 500,000$. On that date, the stockholders' equity of Sanburn Company was $\$ 380,000$. On the purchase date, inventory of Sanburn Company, which was sold during 20X1, was understated by $\$ 20,000$. Any remaining excess of cost over book value is attributable to patent with a 20-year life. The reported income and dividends paid by Sanburn Company were as follows:

|  | 20X1 | 20X2 |
| :---: | :---: | :---: |
| Net income | \$80,000 | \$90, 000 |
| Dividends paid | 10,000 | 10,000 |

Using the sophisticated (full) equity method, which of the following amounts are correct?

|  | Investment |
| :--- | :---: |
|  | $20 \times 1$ |
| a. | $\$ 55,000$ |
| b. | $\$ 55,000$ |
| c. | $\$ 75,000$ |
| d. | $\$ 80,000$ |

Investment Account Balance
December 31, 20X1
\$555, 000
\$545, 000
\$565, 000
\$570, 000

ANS: B
DIF: M
OBJ: 1
3. Pedro purchased $100 \%$ of the common stock of the Sanburn Company on January 1, 20X1, for $\$ 500,000$. On that date, the stockholders' equity of Sanburn Company was $\$ 380,000$. On the purchase date, inventory of Sanburn Company, which was sold during 20X1, was understated by \$20,000. Any remaining excess of cost over book value is attributable to patent with a 20-year life. The reported income and dividends paid by Sanburn Company were as follows:


Using the cost method, which of the following amounts are correct?

|  | Investment Income <br> $20 \times 1$ | Investment Account Balance <br> December 31, 20X1 |
| :--- | :---: | :---: |
| a. | $\$ 10,000$ | $\$ 500,000$ |
| b. | $\$ 10,000$ | $\$ 570,000$ |
| c. | $\$ 0$ | $\$ 570,000$ |
| d. | $\$ 80,000$ | $\$ 500,000$ |

ANS: A
DIF: M
OBJ: 1
4. What is the effect if an unconsolidated subsidiary is accounted for by the equity method but consolidated statements are being prepared for the parent company and other subsidiaries?
a. All of the unconsolidated subsidiary's accounts will be included individually in the consolidated statements.
b. The consolidated retained earnings will not reflect the earnings of the unconsolidated subsidiary.
c. The consolidated retained earnings will be the same as if the subsidiary had been included in the consolidation.
d. Dividend revenue from the unconsolidated subsidiary will be reflected in consolidated net income.
ANS: C
DIF: M
OBJ: 1, 2, 4
5. On January 1, 20X1, Promo, Inc. purchased $70 \%$ of Set Corporation for $\$ 469,000$. On that date the book value of the net assets of set totaled $\$ 500,000$. Based on the appraisal done at the time of the purchase, all assets and liabilities had book values equal to their fair values except as follows:

|  |  | Book Value | Fair Value |
| :---: | :---: | :---: | :---: |
| Inventory |  | \$100, 000 | \$120,000 |
| Land |  | 75,000 | 85,000 |
| Equipment | (useful life 4 years) | 125,000 | 165,000 |

The $\$ 70,000$ of excess of cost over book value was allocated to a patent with a 10-year useful life.

During 20X1 Promo reported net income of $\$ 200,000$ and Set had net income of \$100,000.

What is consolidated net income if Promo includes in its net income, income from Set using the sophisticated equity method?
a. \$42,000
b. \$70,000
c. $\$ 200,000$
d. \$270, 000

ANS: C DIF: M OBJ: 1, 4, 6
6. On January 1, 20X1, Promo, Inc. purchased 70\% of Set Corporation for $\$ 469,000$. On that date the book value of the net assets of Set totaled $\$ 500,000$. Based on the appraisal done at the time of the purchase, all assets and liabilities had book values equal to their fair values except as follows:

|  |  | Book Value | Fair Value |
| :---: | :---: | :---: | :---: |
| Inventory |  | \$100, 000 | \$120, 000 |
| Land |  | 75,000 | 85,000 |
| Equipment | (useful life 4 years) | 125,000 | 165, 000 |

The $\$ 70,000$ of excess of cost over book value was allocated to a patent with a 10-year useful life.

During 20X1 Promo reported net income of $\$ 200,000$ and Set had net income of \$100,000.

What income from subsidiary did Promo include in its net income if Promo uses the simple equity method?
a. \$33,000
b. \$42,000
c. \$70,000
d. \$100, 000

ANS: C DIF: D OBJ: 1, 6
7. On January 1, 20X1, Promo, Inc. purchased $70 \%$ of Set Corporation for $\$ 469,000$. On that date the book value of the net assets of Set totaled $\$ 500,000$. Based on the appraisal done at the time of the purchase, all assets and liabilities had book values equal to their fair values except as follows:


The $\$ 70,000$ of excess of cost over book value was allocated to a patent with a 10-year useful life.

During 20X1 Promo reported net income of $\$ 200,000$ and Set had net income of \$100, 000 .

What income from subsidiary did Promo include in its net income if Promo uses the sophisticated equity method?
a. \$33, 000
b. \$42,000
c. \$70,000
d. \$100, 000

ANS: B DIF: D OBJ: 1, 6
8. On January 1, 20X1, Rabb Corp. purchased 80\% of Sunny Corp.'s \$10 par common stock for $\$ 975,000$. On this date, the carrying amount of Sunny's net assets was $\$ 1,000,000$. The fair values of Sunny's identifiable assets and liabilities were the same as their carrying amounts except for plant assets (net), which were $\$ 100,000$ in excess of the carrying amount.

In the January 1, 20X1, consolidated balance sheet, goodwill should be reported at $\qquad$ .
a. \$0
b. $\$ 75,000$
c. \$95,000
d. \$175,000

ANS: C DIF: E OBJ: 2, 3, 4
9. Which of the following statements applying to the use of the equity method versus the cost method is true?
a. The equity method is required when one firm owns $20 \%$ or more of the common stock of another firm.
b. If no dividends were paid by the subsidiary, the investment account would have the same balance under both methods.
c. The method used has no significance to consolidated statements.
d. An advantage of the equity method is that no amortization of excess adjustments needs to be made on the consolidated work sheet.

ANS: C DIF: E OBJ: 2, 3
10. In consolidated financial statements it is expected that:
a. Dividends declared equals the sum of the total parent company's declared dividends and the total subsidiary's declared dividends.
b. Retained Earnings equals the sum of the controlling interest's separate retained earnings and the noncontrolling interest's separate retained earnings.
c. Common Stock equals the sum of the parent company's outstanding shares and the subsidiary's outstanding shares.
d. Net Income equals the sum of the income distributed to the controlling interest and the income distributed to the noncontrolling interest.

ANS: D DIF: E OBJ: 2, 3, 4
11. How is the portion of consolidated earnings to be assigned to noncontrolling interest in consolidated financial statements determined?
a. The net income of the parent is subtracted from the subsidiary's net income to determine the noncontrolling interest.
b. The subsidiary's net income is extended to the noncontrolling interest.
c. The amount of the subsidiary's earnings recognized for consolidation purposes is multiplied by the noncontrolling's percentage ownership.
d. The amount of consolidated earnings determined on the consolidated working papers is multiplied by the noncontrolling interest percentage at the balance-sheet date.

ANS: C DIF: M OBJ: 2, 3, 4
12. Patti Corp. has several subsidiaries (Aeta, Beta, and Gaeta) that are included in its consolidated financial statements. In its 12/31/X1 separate balance sheet, Patti had the following intercompany balances before eliminations:


In its 12/31/X1 consolidated balance sheet, what amount should Patti report as intercompany receivables?
a. \$166,000
b. $\$ 51,000$
c. $\$ 26,000$
d. \$0
ANS: D
DIF: E
OBJ: 2, 3, 4

## Pawnee Company Scenario

Balance sheet information for Pawnee Company and its 90\% owned subsidiary, Sioux Corporation, at December 31, 20X1 is summarized as follows:


Pawnee acquired its interest in Sioux for cash at book value several years ago when Sioux's assets and liabilities were equal to their fair values.
13. Refer to the Pawnee Company Scenario. Consolidated total assets of Pawnee and Sioux at December 31, 20X1 will be $\qquad$ .
a. \$1, 785, 000
b. \$1,850,000
c. $\$ 2,343,000$
d. $\$ 2,408,000$

ANS: B DIF: E OBJ: 2, 3, 4, 7
14. Refer to the Pawnee Company Scenario. The consolidated balance sheet of Pawnee and Sioux at December 31, 20X1 will show
a. Investment in Sioux, \$558,000.
b. Capital stock, \$800,000.
c. Retained earnings, \$1,078,000.
d. Noncontrolling interest, \$65,000.

ANS: B DIF: E OBJ: 2, 3, 4, 7
15. Pahl Corporation owns a $60 \%$ interest in Sauer Corporation, acquired at book value equal to fair value at the beginning of 20X1. On December 20, 20X1 Sauer declares dividends of \$80,000, and the dividends remain unpaid at year end. Pahl has not recorded the dividends receivable at December 31. A consolidated working paper entry is necessary to
a. Enter the $\$ 80,000$ dividends receivable in the consolidated balance sheet.
b. Enter $\$ 48,000$ dividends receivable in the consolidated balance sheet.
c. Reduce the dividend payable account to $\$ 32,000$ in the consolidated balance sheet.
d. Eliminate the dividend payable account in the consolidated balance sheet.

ANS: C DIF: M OBJ: 3
16. If the investment in subsidiary account is increased or decreased by the amount determined by the following calculation:

Parent ownership percentage $x$ (current balance in the subsidiary's retained earnings minus the subsidiary's retained earnings balance on the date of acquisition) the investment account is being converted from a. cost to simple equity.
b. cost to sophisticated equity.
c. simple equity to sophisticated equity.
d. simple equity to cost.

ANS: A DIF: M OBJ: 3
17. On January 1, 20X1, Payne Corp. purchased 70\% of Shayne Corp.'s \$10 par common stock for $\$ 900,000$. On this date, the carrying amount of Shayne's net assets was \$1,000,000. The fair values of Shayne's identifiable assets and liabilities were the same as their carrying amounts except for plant assets (net), which were $\$ 200,000$ in excess of the carrying amount. For the year ended December 31, 20X1, Shayne had net income of $\$ 150,000$ and paid cash dividends totaling $\$ 90,000$. Excess attributable to plant assets is amortized over 10 years.

In the December 31, 20X1, consolidated balance sheet, noncontrolling interest should be reported at $\qquad$ .
a. \$282,500
b. $\$ 300,500$
c. $\$ 318,000$
d. \$345,000

ANS: C
DIF: M
OBJ: 5
18. Alpha purchased an $80 \%$ interest in Beta on June 30, 20X1. Both Alpha's and Beta's reporting periods end December 31. Which of the following represents the controlling interest in consolidated net income for 20X1?
a. 100\% of Alpha's July 1-December 31 income plus $80 \%$ of Beta's July 1-December 31 income
b. $100 \%$ of Alpha's July 1 -December 31 income plus $100 \%$ of Beta's July 1-December 31 income
c. $100 \%$ of Alpha's January 1-December 31 income plus $80 \%$ of Beta's July 1-December 31 income
d. $100 \%$ of Alpha's January 1-December 31 income plus $80 \%$ of Beta's January 1-December 31 income

ANS: C DIF: D OBJ: 6
19. In a mid-year purchase when the subsidiary's books are not closed until the end of the year, the purchased income account contains the parent's share of the
a. subsidiary's income earned for the entire year.
b. subsidiary's income earned from the beginning of the year to the date of acquisition.
c. subsidiary's income earned from the date of acquisition to the end of the year.
d. Consolidated Net Income.

ANS: B DIF: E OBJ: 6
20. On January 1, 20X1, Piston, Inc. acquired Spur Corp. While recording the acquisition Piston established a deferred tax liability. It is most likely that this account was created because
a. the transaction was a tax-free c. the transaction was a tax-free exchange to Piston.
b. Piston had not paid all of the income taxes due the government when acquiring Spur. exchange to Spur.
d. Spur had not paid all of the income taxes due the government prior to the acquisition by Piston.

ANS: C DIF: E OBJ: 8

## PROBLEM

1. On January 1, 20X1, Parent Company purchased $80 \%$ of the common stock of Subsidiary Company for $\$ 316,000$. On this date, Subsidiary had common stock, other paid-in capital, and retained earnings of $\$ 40,000$, $\$ 120,000$, and $\$ 190,000$, respectively. Net income and dividends for 2 years for Subsidiary Company were as follows:

|  | 20x1 | 20x2 |
| :---: | :---: | :---: |
| Net income. | \$50,000 | \$90,000 |
| Dividends. | 10,000 | 20,000 |

On January 1, 20X1, the only tangible assets of Subsidiary which were undervalued were inventory and building. Inventory, for which FIFO is used, was worth $\$ 5,000$ more than cost. The inventory was sold in 20X1. Building, which was worth $\$ 15,000$ more than book value, has a remaining life of 8 years, and straight-line depreciation is used. Patent, if any, is to be amortized over 10 years.

Required:
a. Using the information above or on the separate worksheet, prepare a determination and distribution of excess schedule. Use the parent company concept (pro-rata fair value approach) in any write-up of assets.
b. Parent Company carries the Investment in Subsidiary Company under the simple equity method. In general journal form, record the entries that would be made to apply the equity method in 20X1 and 20X2.
c. Compute the balance which should appear in Investment in Subsidiary Company and in Subsidiary Income on December 31, 20X2 (the second year). Fill in these amounts on Parent Company's trial balance for 20X2.
d. Complete the Figure 3-1 worksheet for consolidated financial statements for 20X2.

ANS :
a. Determination and Distribution of Excess Schedule:

Price paid for investment in Subsidiary Company................... \$316,000
Less book value of interest acquired: Common stock........................... \$ 40,000 Paid-in capital in excess of par.... 120,000 Retained earnings...................... 190,000

Total stockholders' equity........ \$350,000 Interest acquired....................... $\quad$ 80\% 280,000
Excess of cost over book value (debit balance)
\$ 36,000
========
Allocable to:
Inventory (\$5,000 x 80\%).............. \$ 4,000 Dr.
Building ( $\$ 15,000 \times 80 \%$ )............... 12,000 Dr.
(to Accumulated Depreciation).....
Patent................................ \$20,000 Dr

Amortization:

|  | 20x1 | 20x2 |
| :---: | :---: | :---: |
| Retained Earnings, January 1. |  | \$7,500* |
| Inventory--to Cost of Goods Sold | \$4,000 |  |
| Building--to Operating Expenses | 1,500 | 1,500 |
| Patent--to Operating Expenses. | 2,000 | 2,000 |

* Adjustment for prior years amortization
b. Entries under the equity method.

|  | 20X1 |  | 20x2 |  |
| :---: | :---: | :---: | :---: | :---: |
|  | Debit | Credit | Debit | Credit |
| Investment in Subsidiary. | \$40,000(1) | \$40, 000 | \$72,000(2) | \$72,000 |
| Cash. | 8,000(3) |  | 16,000(4) |  |
| Investment in Subsidiary |  | 8,000 |  | 16,000 |

(1) $80 \%$ of $\$ 50,000$ net income
(2) $80 \%$ of $\$ 90,000$ net income
(3) $80 \%$ of $\$ 10,000$ dividends
(4) $80 \%$ of $\$ 20,000$ dividends
c. Balance in Investment in Subsidiary Company:
$\$ 316,000+40,000-8,000+72,000-16,000=\$ 404,000$
d. For the worksheet solution, please refer to Answer 3-1.

Eliminations and Adjustments:
(CY) Eliminate the current-year entries made in the investment account and in the subsidiary income account.
(EL) Eliminate the prorata share of Subsidiary Company equity balances at the beginning of the year against the investment account.
(D) Distribute the $\$ 36,000$ excess cost as required by the determination and distribution of excess schedule. Since FIFO is used for inventory, allocate the \$4,000 write-up to the January 1, 20X2 retained earnings of Parent company.
(A) Depreciate the write-up to building over 8 years and to patent over 10 years. Charge the 20X1 depreciation and amortization against January 1, 20X1 retained earning of Parent Company. Charge the 20x2 depreciation and amortization against operating expenses.

Consolidated Net Income:
To Noncontrolling Interest: .2(90,000) = 18,000
To Controlling Interest: $100,000+.8(90,000)-1,500-2,000=168,500$

DIF: M OBJ: 1, 2, 5
2. On January 1, 20X1, Pepper Company purchased $100 \%$ of the common stock of Salt Company for $\$ 360,000$. On this date, Salt had common stock, other paid-in capital, and retained earnings of $\$ 50,000, \$ 100,000$ and $\$ 150,000$ respectively. Net income and dividends for two years for Salt Company were:

|  | 20X1 | 20X2 |
| :---: | :---: | :---: |
| Net income | \$60,000 | \$90,000 |
| Dividends | 20,000 | 30, 000 |

On January 1, 20X1, the only tangible assets of Salt which were undervalued were inventory and building. Inventory, for which FIFO is used, was worth \$10,000 more than cost. The inventory was sold in 20X1. Buildings had a fair value of $\$ 320,000$, a remaining life of 10 years and straight-line depreciation is used. The book value of the land and building are $\$ 50,000$ and $\$ 260,000$ respectively. Patent, if any, is to be amortized over 10 years.

Pepper uses the simple equity method in accounting for its Investment in Salt Company.

Required:
a. Using the information above or on the separate worksheet, prepare a determination and distribution of excess schedule.
b. Complete the Figure 3-2 worksheet for consolidated financial statements for 20X2.

ANS:
a. Determination and Distribution of Excess Schedule:

Price paid for investment in Subsidiary Company.................. \$360,000
Less book value of interest acquired:
Common stock.......................... \$ 50, 000 Paid-in capital in excess of par...... 100,000 Retained earnings.................... 150,000

Total stockholders' equity......... \$300,000 Interest acquired...................... 100\% 300,000
Excess of cost over book value (debit balance)........................ \$ 60,000
========

Allocable to:

| Inventory | \$10,000 |
| :---: | :---: |
| Land | 22,000 |
| Building | 28,000 |
| Patent | \$ 0 |


| Asset | Fair Value | Fraction of Fair Value | Total Assigned Value* | Allocated Assigned Value | Book Value | Increase (Decrease) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Land | \$ 80,000 | 1/5 | \$360, 000 | \$ 72,000 | \$ 50,000 | \$22,000 |
| Building | 320, 000 | 4/5 | \$360, 000 | 288, 000 | 260,000 | 28,000 |
|  | \$400, 000 |  |  | \$360, 000 | \$310, 000 | \$50, 000 |

* Total assigned value is book value of land (\$50,000) and building ( $\$ 260,000$ ) plus remaining excess of cost over book value of \$50,000.
b. For the worksheet solution, please refer to Answer 3-2.

Eliminations and Adjustments:
(CY) Eliminate the current-year entries made in the investment account and in the subsidiary income account.
(EL) Eliminate the prorata share of Subsidiary Company equity balances at the beginning of the year against the investment account.
(D) Distribute the $\$ 60,000$ excess cost as required by the determination and distribution of excess schedule. Since FIFO is used for inventory, allocate the $\$ 10,000$ write-up to the January 1, 20X2 retained earning of Parent Company.
(A) Cumulatively depreciate the write-up building over 10 years. Charge the 20X1 depreciation against January 1 20X1 retained earnings of Parent. Charge the 20X2 depreciation against operating expenses.

Consolidated Net Income:
To Controlling Interest: 100,000 + 100\%(90,000) - 2,800 = 187,200

DIF: M OBJ: 1, 2, 5
3. On January 1, 20X1, Parent Company acquired $100 \%$ of the common stock of Subsidiary Company for a cost of $\$ 294,000$ in a tax-free combination. On this date, Subsidiary had total owner's equity of $\$ 220,000$. The excess of cost over book value is due to the undervaluation of inventory, other long-term investments, equipment, and patent.

The inventory is worth $\$ 10,000$ more than book value and FIFO is used. The inventory was sold during 20X1. The other long-term investments of Subsidiary are worth $\$ 20,000$ more than book value and are carried under the cost method. The equipment is worth $\$ 30,000$ more than book value, has a remaining useful life of 10 years, with no salvage value, and straight-line depreciation is used. The patent is to be amortized over 20 years. The corporate tax rate is 30\%.

During 20X1, Subsidiary had net income after taxes of $\$ 42,000$ and in December, paid dividends of $\$ 20,000$. As a result, the appropriate entries were made on Parent's books under the equity method.

Required:
a. Prepare a schedule to determine and distribute the excess of cost over book value to assets and to related deferred taxes. Include computations for the write off of the asset increases and the related tax effect.
b. Complete the worksheet in Figure 3-3 for consolidated financial statements for 20X1.

ANS:
a. Determination and Distribution of Excess Schedule:

Price paid for investment in Subsidiary Company................... \$294,000
Less book value of interest acquired: Common stock........................... \$ 50,000
Other paid-in capital................. 70,000
Retained earnings.................... 100,000
Total stockholders' equity........... $\overline{\$ 220,000}$
Interest acquired..................... $100 \%$ 220,000
Excess of cost over book value (debit balance)
\$ 74, 000
=======

Allocable to:
Inventory............................. . . .
Deferred Tax Liability................
Investments
Deferred Tax Liability................
Equipment.
Deferred Tax Liability.................
Patent (net of deferred tax liability).
$\$ 10,000 \mathrm{Dr}$.
$(3,000) \mathrm{Cr}$.
$20,000 \mathrm{Dr}$.
$(6,000) \mathrm{Cr}$.
$30,000 \mathrm{Dr}$.
$(12,000) \mathrm{Cr}$.
$\begin{gathered}\$ 35,000) \\ =======\end{gathered}$

To be distributed:
Patent (\$35,000 $\div 70 \%) \ldots . . . . . . .$.
Deferred tax liability (30\% x \$50,000
Net-of-tax value of patent.
. . . . . . . . . . . $(15,000) \mathrm{Cr}$.
\$ 35,000
=======

Write-off:

| Write off: | Credit to Asset | Debit to Expenses | Debit to Deferred Tax | Credit to |
| :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Provision |
|  |  |  |  | for Income |
|  |  |  | Liability | Taxes |
| Inventory. | \$10,000 | \$10,000 | \$3,000 | \$3,000 |
| Equipment. | 3,000 | 3,000 | 900 | 900 |
| Patent. | 2,500 | 2,500 | 750 | 750 |

Since FIFO is used, allocation of the excess of cost over book value to inventory should debit Cost of Goods Sold for the \$10,000 undervaluation and credit Provision for Income Taxes for the $\$ 3,000$ tax effect. The deferred tax liability on the other long-term investments will reverse when the investments are sold. The deferred tax liability on the equipment will reverse over 10 years as the asset is used. The deferred tax liability on the patent will reverse over 20 years as the goodwill is amortized.
b. For the worksheet solution, please refer to Answer 3-3.

Eliminations and Adjustments:
(CY) Eliminate the current year entries made in the investment account and in the subsidiary income account.
(EL) Eliminate the prorata share of Subsidiary Company equity balances at the beginning of the year against the investment account.
(D) Distribute the $\$ 74,00$ excess as required by the determination and distribution of excess schedule. Since FIFO is used for inventory, the write-up to inventory is made to cost of good sold and the related tax effect is credited to the provision for income taxes.
(A1) Depreciate the write-up to building over 10 years.
(A2) Amortize part of the deferred tax liability due to the building write-up to the provision for income taxes.
(A3) Amortize the patent.
(A4) Amortize part of the deferred tax liability due to the patent to the provision for income taxes.

Consolidated Net Income:

```
To Controlling Interest: 56,000 - (10,000 - 3,000) - (3,000 - 900)
```

                                    - \((2,500-750)+100 \%(42,000)=87,150\)
    DIF: M OBJ: 1, 2, 5, 8
4. On January 1, 20X1, Port Company purchased $80 \%$ of the common stock of Star Company for $\$ 400,000$. On this date, Star had common stock, other paid-in capital, and retained earnings of $\$ 10,000, \$ 140,000$ and $\$ 200,000$ respectively. Net income and dividends for two years for Star Company were:

|  | 20X1 | 20X2 |
| :---: | :---: | :---: |
| Net income. | \$50,000 | \$90,000 |
| Dividends. | 10,000 | 30, 000 |

On January 1, 20X1, the only tangible assets of Star which were undervalued were inventory and building. Inventory, for which FIFO is used, was worth \$10,000 more than cost. The inventory was sold in 20X1. Building, which was worth $\$ 27,500$ more than book value, has a remaining life of 10 years, and straight-line depreciation is used. Patent, if any, is to be amortized over 10 years.

Required:
a. From the information above or on the separate vertical-form worksheet, prepare a determination and distribution of excess schedule. Use the parent company concept (pro rata fair value approach) in any write-up of assets.
b. Port Company carries the Investment in Star Company under the simple equity method. In general journal form, record the entries that would be made to apply the equity method in 20X1 and 20X2.
c. Complete the Figure 3-4 worksheet for consolidated financial statements for 20X2.

ANS:
a. Determination and Distribution of Excess Schedule:


Allocable to:
Inventory (\$10,000 x 80\%) ........... \$8,000 Dr.
Building ( $\$ 27,500 \times 80 \%$ )............ 22,000 Dr.
(to Accumulated Depreciation).....
Patent........................... \$90,000 Dr.
======

## Amortization:

|  | $20 \times 1$ |  | $20 \times 2$ |
| :--- | :--- | ---: | ---: | ---: |
| Retained Earnings, January 1.......... |  | $\$ 13,200$ |  |
| Inventory--to Cost of Goods Sold...... | $\$ 8,000$ |  |  |
| Building--to Operating Expenses....... | 2,200 |  | 2,200 |
| Patent--to Operating Expenses........ | 9,000 | 9,000 |  |

b. Entries under the equity method.

|  | 20X1 |  | 20X2 |  |
| :---: | :---: | :---: | :---: | :---: |
|  | Debit | Credit | Debit | Credit |
| Investment in Subsidiary | \$40,000(1) |  | \$72,000(2) |  |
| Subsidiary Income. |  | \$40, 000 |  | \$72, 000 |
| Cash. | 8,000(3) |  | 24,000(4) |  |
| Investment in Subsidiar |  | 8,000 |  | 24,000 |

(1) $80 \%$ of $\$ 50,000$ net income
(2) $80 \%$ of $\$ 90,000$ net income
(3) $80 \%$ of $\$ 10,000$ dividends
(4) $80 \%$ of $\$ 30,000$ dividends
c. For the worksheet solution, please refer to Answer 3-4.

Eliminations and Adjustments:
(CY) Eliminate the current-year entries made in the investment account and in the subsidiary income account.
(EL) Eliminate the pro rata share of Star Company equity balances at the beginning of the year against the investment account.
(D) Distribute the $\$ 120,000$ excess as required by the determination and distribution of excess schedule. Since FIFO is used for inventory, allocate the $\$ 8,000$ write-up to the January 1, 20X2 retained earnings of Port Company.
(A) Depreciate the write-up to building over 10 years and amortize the patent over 10 years. Charge the 20X1 depreciation and amortization against January 1, 20X1 retained earnings of Port Company. Charge the 20X2 depreciation and amortization against operating expenses.

Consolidated Net Income:
To Noncontrolling Interest: .2(90,000) = 18,000
To Controlling Interest: $100,000+.8(90,000)-2,200-9,000=160,800$

DIF: M OBJ: 1, 2, 7
5. The Paris Company purchased an $80 \%$ interest in Seine, Inc. for $\$ 600,000$ on July 1, 20X1, when Seine had the following balance sheet:

| Assets |  |
| :---: | :---: |
| Accounts receivable | \$ 50,000 |
| Inventory. | 120, 000 |
| Land | 80,000 |
| Building. | 270, 000 |
| Equipment | 80, 000 |
| Total | \$600,000 |
| Liabilities and Equity |  |
| Current liabilities | \$100, 000 |
| Common stock, \$5 par | 50,000 |
| Paid-in capital in excess of par | 150, 000 |
| Retained earnings - 7/1 | 300, 000 |
| Total. | \$600,000 |

The inventory is understated by $\$ 20,000$ and is sold in the third quarter of 20X1. The building has a fair value of $\$ 320,000$ and a 10 -year remaining life. The equipment has a fair value of $\$ 120,000$ and a remaining life of 5 years. Any remaining excess is attributed to patent with a 20-year life.

On December 31, 20X4, Seine has the following stockholders' equity:
Common Stock, \$5 par................................... \$ 50,000

Paid-in capital in excess of par........................... 150,000
Retained earnings............................................ 600,000
During 20X1, Seine had a net income of $\$ 100,000$ and paid $\$ 10,000$ in dividends.

Assume that Paris uses the cost method to record its investment in Seine.

Required:
a. Prepare a determination and distribution of excess schedule as of July 1, 20X1.
b. Prepare the cost to equity conversion adjustment that would be made on the December 31, 20X1, consolidated trial balance worksheet.
c. Prepare the eliminations and adjustments that would be made on the December 31, 20X1, consolidated worksheet to eliminate the investment in Seine. Distribute and amortize any excess.

ANS:
a. Determination and Distribution of Excess Schedule

Price paid............................... \$600,000
Stockholders' equity of Seine ......... \$500,000
Ownership interest.................... 80\%
400, 000
Excess of cost over book value........
Adjust inventory, . $8 \times \$ 20,000$
\$200, 000
16, 000
Excess available for fixed assets.....
\$184,000
Adjust fixed assets:
Building, . 8 x \$50,000, 10-year life..
Equipment, . $8 \times \$ 40,000,5$-year life..
Patent, 20-year life.................
$(40,000)$
$(32,000)$
\$112,000
b. Investment in Seine .................. 240,000

Retained Earnings, Paris...............
$.8 \times(\$ 600,000$ retained earnings on
12/31/X4 - \$300,000 retained earnings on 7/1/X1)

| C. Investment(or Dividend) Income. | 8,000 |  |
| :---: | :---: | :---: |
| Dividends Declared, Seine |  | 8,000 |
| Common Stock, \$5 par | 40,000 |  |
| Paid-in Capital in Excess of Par | 120, 000 |  |
| Retained Earnings... | 480, 000 |  |
| Investment in Seine |  | 640, 000 |
| Retained Earnings (for inventory) | 16,000 |  |
| Building. | 40, 000 |  |
| Equipment | 32,000 |  |
| Patent | 112,000 |  |
| Investment in Seine |  | 200, 000 |
| Depreciation Expense | 4,000 |  |
| Retained Earnings, Paris, 3.5 x \$4,000. | 14,000 |  |
| Accumulated Depreciation, Building. |  | 18,000 |
| Depreciation Expense. | 6,400 |  |
| Retained Earnings, Paris, $3.5 \times \$ 6,400$. | 22,400 |  |
| Accumulated Depreciation............. |  | 28,800 |
| Patent Amortization Expense. | 5,600 |  |
| Retained Earnings, Paris, 3.5 x \$5,600. | 19,600 |  |
| Patent... |  | 25,200 |

DIF: M OBJ: 1, 3, 5
6. On January 1, 20X1, Parent Company purchased $100 \%$ of the common stock of Subsidiary Company for $\$ 360,000$. On this date, Subsidiary had common stock, other paid-in capital, and retained earnings of $\$ 50,000, \$ 100,000$ and $\$ 150,000$ respectively. Net income and dividends for two years for Subsidiary Company were:

|  | 20X1 | 20X2 |
| :---: | :---: | :---: |
| Net income. | \$60,000 | \$90,000 |
| Dividends | 20,000 | 30,000 |

On January 1, 20X1, the only tangible assets of Subsidiary which were undervalued were inventory and building. Inventory, for which FIFO is used, was worth \$10,000 more than cost. The inventory was sold in 20X1. Land had a fair value of $\$ 80,000$. Buildings had a fair value of $\$ 320,00$, a remaining life of 10 years and straight-line depreciation is used. The book value of the land and building are \$50,000 and \$260,000 respectively. Patent, if any, is to be amortized over 10 years.

Parent uses the simple equity method in accounting for its Investment in Subsidiary Company.

Required:
a. Using the information above or on the separate worksheet, prepare a determination and distribution of excess schedule.
b. Complete the Figure 3-5 worksheet for consolidated financial statements for 20X2.

ANS:
a. Determination and Distribution of Excess Schedule:

Price paid for investment in Subsidiary Company................... \$360,000
Less book value of interest acquired:
Common stock.......................... \$ 50, 000 Paid-in capital in excess of par...... 100,000 Retained earnings..................... 150, 000

Total stockholders' equity......... \$300,000 Interest acquired...................... 100\% 300,000
Excess of cost over book value (debit balance)........................ \$ 60,000
=======

Allocable to:
Inventory (\$10,000 x 100\%)........... \$10,000 Dr.
Land. . . . . . . . . . . . . . . . . . . . . . . . . . . . .
22,000 Dr.
Building.............................. . . .
28,000 Dr.
(to Accumulated Depreciation)......
Patent.............................. . .

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| Asset | Fair Value | Fraction of Fair Value | Total Assigned Value* | Allocated Assigned Value | Book Value | Increase (Decrease) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Land | \$ 80,000 | 1/5 | \$360, 000 | \$ 72,000 | \$ 50,000 | \$22,000 |
| Building | 320, 000 | 4/5 | \$360, 000 | 288, 000 | 260, 000 | 28,000 |
|  | \$400, 000 |  |  | \$360, 000 | \$310, 000 | \$50,000 |

* Total assigned value is book value of land (\$50,000) and building (260,000) plus remaining excess of cost over book value of \$50,000.
b. For the worksheet solution, please refer to Answer 3-5.

Eliminations and Adjustments:
(CV) Convert to simple equity method as of January 1 20X2 (100\% of \$40,000 increase in retained earnings from January 1, 20X1 to January 1, 20X2).
(CY) Eliminate the current-year dividend income of Parent against dividends declared by Subsidiary.
(EL) Eliminate the prorata share of Subsidiary Company equity balances at the beginning of the year against the investment account.
(D) Distribute the $\$ 60,000$ excess cost as required by the determination and distribution of excess schedule. Since FIFO is used for inventory, allocate the \$10,000 write-up to the January 1, 20X2 retained earning of Parent Company.
(A) Cumulatively depreciate the write-up to building over 10 years. Charge the 20X1 depreciation against January 1 20X1 retained earnings of Parent. Charge the 20X2 depreciation against operating expenses.

Consolidated Net Income:
To Controlling Interest: $100,000+100 \%(90,000)-2,800=187,200$

DIF: M OBJ: 1, 3, 5
7. The Paris Company purchased an $80 \%$ interest in Seine, Inc. for $\$ 600,000$ on July 1, 20X1, when Seine had the following balance sheet:

|  | Assets |  |
| :---: | :---: | :---: |
| Accounts receivable |  | \$ 50,000 |
| Inventory |  | 120, 000 |
| Land. |  | 80, 000 |
| Building. |  | 270,000 |
| Equipment |  | 80,000 |
| Total |  | \$600, 000 |



The inventory is understated by $\$ 20,000$ and is sold in the third quarter of 20X1. The building has a fair value of $\$ 320,000$ and a 10 -year remaining life. The equipment has a fair value of $\$ 120,000$ and a remaining life of 5 years. Any remaining excess is attributed to patent with a 20-year life.

On December 31, 20X4, Seine has the following stockholders' equity:
Common stock, $\$ 5$ par..................................... \$ 50,000
Paid-in capital in excess of par....................... 150,000

Retained earnings
600, 000
During 20X1, Seine had a net income of $\$ 100,000$ and paid $\$ 10,000$ in dividends.

Assume that Paris uses the sophisticated equity method to record its investment in Seine.

## Required:

a. Prepare a determination and distribution of excess schedule as of July 1, 20X1.
b. Prepare the eliminations and adjustments that would be made on the December 31, 20X1, consolidated worksheet to eliminate the investment in Seine. Distribute and amortize any excess.

ANS:
a. Determination and Distribution of Excess Schedule:

| Price paid |  | \$600, 000 |
| :---: | :---: | :---: |
| Stockholders' equity of Seine | \$500, 000 |  |
| Ownership interest | 80\% | 400, 000 |
| Excess of cost over book value |  | \$200,000 |
| Adjust inventory, $8 \times$ \$20,000 |  | 16,000 |
| Excess available for fixed assets |  | \$184, 000 |
| Adjust fixed assets: |  |  |
| Building, . 8 x \$50,000, 10-year life |  | ( 40, 000) |
| Equipment, . $8 \times \$ 40,000,5-y e a r ~ l i f e ~$ |  | $(32,000)$ |
| Patent, 20-year life. |  | \$112,000 |

b. Investment Income........................ 64,000

Investment in Seine
56, 000
Dividends Declared
8, 000
Common Stock, \$5 par.................. 40,000
Paid-in Capital in Excess of Par....... 120,000
Retained Earnings..................... 480,000
Investment in Seine
640, 000
Building
40, 000
Equipment............................... . 32,000
Patent (\$112,000 - [3.5 x \$5,600])...... 92,400 Accumulated Depreciation--Building (3.5 x \$4,000)

14, 000
Accumulated Depreciation--Equipment (3.5 x \$6,400)

22,400
Investment in Seine..................
128, 000
Depreciation Expense.................... 4,000 Accumulated Depreciation, Building...

4, 000
Depreciation Expense
6,400
Accumulated Depreciation, Equipment..
6,400
Patent Amortization Expense
5,600

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DIF: M OBJ: 1, 4, 5
```

8. On January 1, 20X1, Parent Company purchased $80 \%$ of the common stock of Subsidiary Company for $\$ 316,000$. On this date, Subsidiary had common stock, other paid-in capital, and retained earnings of $\$ 40,000$, \$120, 000, and \$190,000, respectively. Net income and dividends for 2 years for Subsidiary Company were as follows:

|  | 20X1 | 20X2 |
| :---: | :---: | :---: |
| Net income | \$50,000 | \$90,000 |
| Dividends | 10,000 | 20,000 |

On January 1, 20X1, the only tangible assets of Subsidiary which were undervalued were inventory and building. Inventory, for which FIFO is used, was worth $\$ 5,000$ more than cost. The inventory was sold in 20X1. Building, which was worth $\$ 15,000$ more than book value, has a remaining life of 8 years, and straight-line depreciation is used. Patent, if any, is to be amortized over 10 years.

Required:
a. Using the information above or on the separate worksheet, prepare a determination and distribution of excess schedule. Use the parent company concept (prorata fair value approach) in any write-up of assets.
b. Parent Company carries the Investment in Subsidiary Company under the sophisticated equity method. In general journal form, record the entries that would be made to apply the equity method in 20X1 and 20X2.
c. Compute the balance which should appear in Investment in Subsidiary Company and in Subsidiary Income on December 31, 20X2 (the second year. Fill in these amounts on Parent Company's trial balance for 20X2.
d. Complete the Figure 3-6 worksheet for consolidated financial statements for 20X2.

ANS:
a. Determination and Distribution of Excess Schedule:

Price paid for investment in Subsidiary Company................. \$316,000
Less interest acquired: Common stock....................... \$ 40,000 Paid-in capital in excess of par.... 120,000 Retained earnings................... 190,000

Total stockholders' equity......... \$350,000 Interest acquired................... 80\% 280,000
Excess of cost over book value (debit balance)
\$ 36,000
========

Allocable to:
Inventory (\$5,000 x 80\%).............. \$ 4,000 Dr.
Building (\$15,000 x 80\%)
(to Accumulated Depreciation)..... 12,000 Dr.
Patent................................ \$20,000 Dr.
======

Amortization:

|  | $20 \times 1$ | 20X2 |
| :--- | :--- | ---: | ---: | ---: |
| Retained Earnings, January 1........... |  | $\$ 7,500$ |
| Inventory--to Cost of Goods Sold...... | $\$ 4,000$ |  |
| Building--to Operating Expenses....... | 1,500 | 1,500 |
| Patent--to Operating Expenses......... | 2,000 | 2,000 |

b. Entries under the equity method:

(1) $80 \%$ of $\$ 50,000$ net income less amortization of $\$ 7,500$
(2) $80 \%$ of $\$ 90,000$ net income less amortization of $\$ 3,500$
(3) $80 \%$ of $\$ 10,000$ dividends
(4) $80 \%$ of $\$ 20,000$ dividends
c. Balance in Investment in Subsidiary Company:
$\$ 316,000+32,500-8,000+68,500-16,000=\$ 393,000$
d. For the worksheet solution, please refer to Answer 3-6.

Eliminations and Adjustments:
(CY) Eliminate the current-year entries made in the investment account and in the subsidiary income account.
(EL) Eliminate the prorata share of Subsidiary Company equity balances at the beginning of the year against the investment account.
(D) Distribute the $\$ 28,500$ remaining excess cost over book value ( $\$ 3,600$ less $20 \times 1$ charges to cost of goods sold for inventory of $\$ 4,000$ and to operating expenses for extra depreciation of $\$ 1,500$ and amortization of patent for $\$ 2,000)$. Debit Accumulated Depreciation for $\$ 10,500$ and Patent for \$18,000.
(A) For 20X2 only, depreciate the write-up to building over 8 years and to patent over 10 years. Charge the 20X2 depreciation and amortization against operating expenses.

Consolidated Net Income:
To Noncontrolling Interest: .2(90,000) = 18,000
To Controlling Interest: $100,000+.8(90,000)-1,500-2,000=168,500$

DIF: M OBJ: 1, 4, 5
9. Puddle Corporation acquired $90 \%$ of Suds Company's common stock on January 1, 20X1 for \$32,000 cash when Sud's stockholders' equity consisted of:

Common Stock \$20,000
Retained Earnings \$ 4,000
A determination and distribution schedule was prepared for the difference between the price paid by Puddles and the underlying equity acquired in Suds with the excess of cost over book value being allocated as:

| Inventory (undervalued) | $\$ 00$ |
| :--- | ---: |
| Building \& Equipment (undervalued) | 2,000 |
| Patent | 8,000 |
| Allocated excess cost over book value | $\$ 10,400$ |
|  | $=======$ |

The inventory was sold during 20X1, and the building and equipment are being depreciated for 5 years using the straight-line method. The Patent is expected to have a 10-year useful life.

Required:
The separate December 31, 20X1 financial statements for Puddle and Suds is provided on worksheet 3-7. Based upon this information answer the following questions.
a. Which method to account for its investment in Suds is Puddle using? Provide supporting computations?
b. What advantage does Puddle have in using this method?
c. What is a disadvantage for Puddle in using this method?
d. What amount is reported for Consolidated Net Income?
e. What amount is reported for Dividends Declared on the Consolidated Statement of Retained Earnings?
f. What amount is reported on the December 31, 20X1 consolidated financial statements for Noncontrolling Interest?

You do not have to complete the worksheet but it may be helpful to answer the questions.

ANS:
a. Sophisticated Equity. The Income from Suds balance at year end $=$ $\$ 3,800=$ the parent's share of sub net income (\$6,000 x 90\% = 5,400 ) less amortization of excess of $\$ 1,600$ ( $\$ 400$ inventory excess $+\$ 400$ depreciation of the building's excess $+\$ 800$ amortization of the patent's excess.
b. The advantage to Puddle is if there is a need for separate financial statements the use of the sophisticated equity method will result in properly stated net income and retained earnings.
c. A disadvantage is that the sophisticated equity method results in more complexity than the simple equity method when completing the consolidating worksheet.
d. $\$ 29,550$ (NCI = \$600; controlling interest net income $=\$ 28,950$. The students should be able to compute this without completing the worksheet.
e. $\$ 4,000$. The students should be able to compute this without completing the worksheet.
f. \$2,680. 10\% x \$24,000 (Beginning Equity) + 10\% x \$6,000 (Current Net Income) - $10 \% \times \$ 3,200$ (Dividends).

DIF: D OBJ: 1, 4, 5, 7
10. The Paris Company purchased an $80 \%$ interest in Seine, Inc. for $\$ 550,000$ on July 1, 20X1, when Seine had the following balance sheet:

## Assets

| Accounts receivable | \$ 50,000 |
| :---: | :---: |
| Inventory | 120, 000 |
| Land | 80,000 |
| Building. | 270, 000 |
| Equipment | 80, 000 |
| Total | \$600, 000 |
| Liabilities and Equity |  |
| Current liabilities | \$100, 000 |
| Common stock, \$5 par | 50,000 |
| Paid-in capital in excess of par | 150, 000 |
| Retained earnings - 7/1 | 300, 000 |
| Total | \$600,000 |

The inventory is understated by $\$ 20,000$ and is sold in the third quarter of 20X1. The building has a fair value of $\$ 320,000$ and a 10 -year remaining life. The equipment has a fair value of $\$ 120,000$ and a remaining life of 5 years. Any remaining excess is attributed to patent with a 20-year life.

On December 31, 20X4, Seine has the following stockholders' equity:
Common stock, $\$ 5$ par....................................... $\$$ 50,000
Paid-in capital-in excess of par........................ 150,000
Retained earnings........................................ 600,000
During 20X1, Seine had a net income of $\$ 100,000$ and paid $\$ 10,000$ in dividends.

Assume that Paris uses the simple equity method to record its investment in Seine.

Required:
a. Prepare a determination and distribution of excess schedule as of July 1, 20X1.
b. Prepare the eliminations and adjustments that would be made on the December 31, 20X1, consolidated worksheet to eliminate the investment in Seine. Distribute and amortize any excess.

ANS:
a. Determination and Distribution of Excess Schedule:

| Price paid |  | \$600, 000 |
| :---: | :---: | :---: |
| Stockholders' equity of Seine | \$500, 000 |  |
| Ownership interest | 80\% | 400, 000 |
| Excess of cost over book value |  | \$200, 000 |
| Adjust inventory, . 8 x \$20,000 |  | 16,000 |
| Excess available for fixed assets |  | \$184,000 |
| Adjust fixed assets: |  |  |
| Building, . 8 x \$50,000, 10-year life. |  | $(40,000)$ |
| Equipment, . $8 \times$ \$40,000, 5-year life. |  | (32,000) |
| Patent, 20-year life |  | \$112,000 |

b. Investment Income................................ 80,000

Investment in Seine
72,000
Dividends Declared......................... 8,000
Common Stock, \$5 par................... 40,000
Paid-in Capital in Excess of Par........ 120,000
Retained Earnings....................... 480,000
Investment in Seine
Retained Earnings (for inventory)....... 16,000
Building............................ .... . 40,000
Equipment............................... . 32,000
Patent.................................. 112,000
Investment in Seine
112,000

Depreciation Expense.................... 4,000
Retained Earnings, Paris, $3.5 \times \$ 4,000 . .14,000$
Accumulated Depreciation, Building....
Depreciation Expense................... 6,400
Retained Earnings, Paris, $3.5 \times \$ 6,400 . . \quad 22,400$
Accumulated Depreciation
5,600
Retained Earnings, Paris, $3.5 \times$ \$5,600..
19,600
200, 000

Patent
640, 000
..........
28,800

DIF: M OBJ: 1, 5, 6
11. The Paris Company purchased a $70 \%$ interest in Seine, Inc. for $\$ 278,000$ on July 1, 20X1, when Seine had the following balance sheet:

## Assets

| Accounts receivable | \$ 50,000 |
| :---: | :---: |
| Inventory. | 110, 000 |
| Land | 80, 000 |
| Building and Equipment | 160, 000 |
| Total | \$400,000 |
| Liabilities and Equity |  |
| Current liabilities | \$160,000 |
| Common stock, \$5 par | 50,000 |
| Paid-in capital in excess of par | 150, 000 |
| Retained earnings - 7/1 | 100, 000 |
| Total | \$400,000 |

The inventory is understated by $\$ 50,000$ and is sold in the third quarter of 20X1. The land has a fair value of $\$ 100,000$. The equipment has a fair value of \$130,000 and a remaining life of 3 years. Any remaining excess is attributed to a patent with a 10-year life.

The following net incomes (earned evenly throughout the year) and dividends paid (on 12/1 each year) are reported by Seine:

| 20X1 | 20X2 |
| ---: | ---: |
| $\$ 150,000$ | $\$ 100,000$ |
| 10,000 | 10,000 |

Required:
a. Prepare a determination and distribution of excess schedule as of July 1, 20X1.
b. Prepare the $20 \times 1$ and $20 \times 2$ entries made by Paris to record the net income and dividends paid information on its books under the sophisticated equity method.
c. Prepare the 20X1 and 20X2 entries made by Paris to record the net income and dividends paid information on its books under the cost method.

ANS:
a. Determination and Distribution of Excess Schedule:

| Price paid |  | \$278, 000 |
| :---: | :---: | :---: |
| Stockholders' equity of Seine | \$300, 000 |  |
| Ownership interest | 70\% | 210,000 |
| Excess of cost over book value |  | \$ 68,000 |
| Adjust inventory, . 7 x \$50,000. |  | 35, 000 |
| Excess available for fixed assets |  | \$ 33,000 |
| Adjust fixed assets: |  |  |
| Land, . 7 x \$20,000 |  | $(14,000)$ |
| Building \& Equipment, . $7 \times$ \$30,000, |  |  |
| 3-year life |  | 21,000 |
| Patent, 10-year life |  | \$ 40,000 |

b. 20X1 Investment in Seine .............. 19,000

Investment Income
19,000
$\$ 52,500-\$ 35,000+(\$ 21,000 \div 3) / 2$
$-(\$ 40,000 \div 10) / 2$
Cash.................................... 7,000
Investment in Seine
20X2 Investment in Seine .............. 73,000
Investment Income.....................
$\$ 70,000+(\$ 21,000 \div 3)-(\$ 40,000 \div 10)$
Cash
Investment in Seine
7,000
7,000
c. 20X1 Cash............................... 7,000

Investment (or Dividend) Income...... 7,000
20X2 Cash............................ 7,000
Investment (or Dividend) Income...... 7,000

DIF: M OBJ: 1, 5, 6
12. The Paris Company purchased an $70 \%$ interest in Seine, Inc. for $\$ 300,000$ on July 1, 20X1, when Seine had the following balance sheet:

## Assets

| Accounts receivable | \$ 50,000 |
| :---: | :---: |
| Inventory | 110, 000 |
| Land | 80, 000 |
| Building and Equipment | 160, 000 |
| Total | \$400,000 |
| Liabilities and Equity |  |
| Current liabilities | \$160,000 |
| Common stock, \$5 par | 50,000 |
| Paid-in capital in excess of par | 150, 000 |
| Retained earnings - 7/1 | 100, 000 |
| Total | \$400,000 |

Assume that all assets and liabilities have fair values equal to their book values. Any excess cost is attributed to patent with a 10-year life.

The following net incomes (earned evenly throughout the year) and dividends paid (on 12/1 each year) are reported by Seine:

|  | 20X1 | 20X2 |
| :---: | :---: | :---: |
| Net income | \$60,000 | \$80, 000 |
| Dividends paid | 10,000 | 10,000 |

## Required:

a. Prepare the $20 \times 1$ \& $20 \times 2$ entries made by Paris to record the net income and dividends paid information on its books under the simple equity method.
b. Prepare the 20X1 \& 20X2 entries made by Paris to record the net income and dividends paid information on its books under the cost method.

ANS:
a. 20X1

| Investment in Seine | 21,000 |  |
| :---: | :---: | :---: |
| Investment Income |  | 21,000 |
| Cash. | 7,000 |  |
| Investment in Seine. |  | 7,000 |
| 20x2 |  |  |
| Investment in Seine | 56,000 |  |
| Investment Income |  | 56,000 |
| Cash. | 7,000 |  |
| Investment in Seine. |  | 7,000 |

b. 20X1

Cash.................................... 7,000
Investment(or Dividend) Income......... 7,000
20X2
Cash................................... 7,000
Investment(or Dividend) Income

DIF: M OBJ: 1, 6
13. The Paris Company purchased a $70 \%$ interest in Seine, Inc. for $\$ 300,000$ on July 1, 20X1, when Seine had the following balance sheet:

Assets

| Accounts receivable | \$ 50,000 |
| :---: | :---: |
| Inventory | 110, 000 |
| Land | 80,000 |
| Building and Equipment | 160,000 |
| Total | \$400, 000 |
| Liabilities and Equity |  |
| Current liabilities | \$160, 000 |
| Common stock, \$5 par | 50,000 |
| Paid-in capital in excess of par | 150,000 |
| Retained earnings - 7/1 | 100,000 |
| Total | \$400, 000 |

Assume that all assets and liabilities have fair values equal to their book values. Any excess cost is attributed to patent with a 10-year life.

The following net incomes (earned evenly throughout the year) and dividends paid (on 12/1 each year) are reported by Seine:

|  | 20X1 | 20X2 |
| :---: | :---: | :---: |
| Net income | \$60,000 | \$80,000 |
| Dividends paid. | 10,000 | 10,000 |

## Required:

a. Prepare a determination and distribution of excess schedule as of July 1, 20X1.
b. Prepare the $20 \times 1$ and $20 \times 2$ entries made by Paris to record the net income and dividends paid information on its books under the sophisticated equity method.

ANS:
a. Determination and Distribution of Excess Schedule:

| ice paid |  | \$300, 000 |
| :---: | :---: | :---: |
| Stockholders' equity of Seine | \$300, 000 |  |
| Ownership interest. | 70\% | 210,000 |
| Patent, amortize 10 years |  | \$ 90,000 |

b. 20X1 Investment in Seine.................. 16,500

Investment Income.
$\$ 21,000-(\$ 90,000 \div 10) \times 6 / 12$
Cash
7,000
Investment in Seine ..................... 7,000
20X2 Investment in Seine ................. 45,000
Investment Income......................... 45,000 $\$ 56,000-(\$ 90,000 \div 10)$

Cash
7,000
16,500

Investment in Seine ..................... 7,000

DIF: M OBJ: 1, 6
14. Pablo Company purchased an $80 \%$ interest in Sand Company on July 1, 20X1, for $\$ 260,000$. On July 1, 20X1, Sand Company had the following information available:

Common stock outstanding (\$10 par)......................... \$100,000
Retained earnings, January 1, 20X1............................. 120,000
Net income, January 1-June 30, 20x1......................... 10, 000
Dividends paid, June 30, 20X1................................ 2,000
Equipment is undervalued by $\$ 30,000$ and has a 6-year remaining life. Any remaining excess is attributable to patent with a 20 -year life.

Required:
a. Prepare a determination and distribution of excess schedule.
b. Complete the Figure 3-8 partial worksheet for the year ended December 31, 20X1. Subsidiary books were not closed on the purchase date. Provide keyed explanations for all worksheet entries and key each amortization of excess separately. Include income distribution schedules.

ANS:
a. Determination and Distribution of Excess Schedule:

| Price paid. |  | \$260, 000 |
| :---: | :---: | :---: |
| Less interest acquired: |  |  |
| Common stock. | \$100,000 |  |
| Retained earnings | 120,000 |  |
| Income purchased. | 10,000 |  |
| Dividends paid, June 30, 20X1 | $(2,000)$ |  |
| Total stockholders' equity. | \$228,000 |  |
| Interest acquired. | 80\% | 182,400 |
| Excess cost over book value. |  | \$ 77,600 |
| Less undervaluation of equipment |  |  |
| \$4,000 per year). |  | 24,000 |
| Patent (20-year life, \$2,680 per year) |  | \$ 53,600 |

b. For the worksheet solution, please refer to Answer 3-8.

Eliminations and Adjustments:
(CY) Eliminate equity adjustments for last 6 months.
(EL) Eliminate investment against subsidiary equity.
(D) Distribute excess cost according to determination and distribution of excess schedule.
(A1) Increase depreciation expense for 1/2 year (\$4,000 x 1/2 = \$2,000).
(A2) Amortize Patent for $1 / 2$ year ( $\$ 2,680 \times 1 / 2=\$ 1,340$ ). Subsidiary Sand Company Income Distribution


Subsidiary Sand Company Income Distribution

| Equipment depreciation.. \$2,000 | Internally generated |  |
| :---: | :---: | :---: |
| Patent amortization..... 1,340 | net income. | \$100, 000 |
| Purchased income....... 8,000 | 80\% x Sand Co. adj. income of \$20,000. | 16,000 |
|  | Controlling interest. | $\begin{aligned} & \$ 104,660 \\ & ======= \end{aligned}$ |

DIF: M
OBJ: 6
15. Puddle Corporation acquired $90 \%$ of Suds Company's common stock on January 1, 20X1 for $\$ 32,000$ cash when Sud's stockholders' equity consisted of:

$$
\begin{array}{ll}
\text { Common Stock } & \$ 20,000 \\
\text { Retained Earnings } \$ 4,000
\end{array}
$$

A determination and distribution schedule was prepared for the difference between the price paid by Puddles and the underlying equity acquired in Suds with the excess of cost over book value being allocated as:

| Inventory (undervalued) | $\$ 800$ |
| :--- | ---: |
| Building \& Equipment (undervalued) | 2,000 |
| Patent | 8,000 |
| Allocated excess cost over book value | $\$ 10,400$ |
|  | $======$ |

The inventory was sold during 20X1, and the building and equipment are being depreciated for 5 years using the straight-line method. The Patent is expected to have a 10-year useful life.

Required:
The separate December 31, 20X1 financial statements for Puddle and Suds is provided in Figure 3-7. Complete the worksheet and provide supporting calculations as needed and an explanation of the elimination and adjustment entries.

ANS:
For the worksheet solution, please refer to Answer 3-7.
Explanation of elimination and adjustment entries:
(CY) Eliminate the Income from Suds and the parent's share of dividends to bring the investment account to beginning of year balance
(EL) Eliminate investment in subsidiary against the parent's share of the subsidiary equity accounts as of the beginning of the year.
(D) Distribute the excess.
(A) Depreciate Building and Equipment excess of $\$ 2,000$ over 5 -years and amortize the Patent excess of $\$ 8,000$ over 10 years.

```
DIF: D OBJ: 1, 4, 5, 7
```

[[Insert FIGURE 3-1 from Excel spreadsheet]]
[[Insert ANSWER 3-1 from Excel spreadsheet]]
[[Insert FIGURE 3-2 from Excel spreadsheet]]
[[Insert ANSWER 3-2 from Excel spreadsheet]]
[[Insert FIGURE 3-3 from Excel spreadsheet]]
[[Insert ANSWER 3-3 from Excel spreadsheet]]
[[Insert FIGURE 3-4 from Excel spreadsheet]]
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[[Insert FIGURE 3-6 from Excel spreadsheet]]
[[Insert ANSWER 3-6 from Excel spreadsheet]]
[[Insert FIGURE 3-7 from Excel spreadsheet]]
[[Insert ANSWER 3-7 from Excel spreadsheet]]
[[Insert FIGURE 3-8 from Excel spreadsheet]]
[[Insert ANSWER 3-8 from Excel spreadsheet]]

## Chapter 4 - Intercompany Transactions: Merchandise, Plant Assets, and Notes

## MULTIPLE CHOICE

1. Schiff Company owns $100 \%$ of the outstanding common stock of the Viel Company. During 20X1, Schiff sold merchandise to Viel that Viel, in turn, sold to unrelated firms. There were no such goods in Viel's ending inventory. However, some of the intercompany purchases from Schiff had not yet been paid. Which of the following amounts will be incorrect in the consolidated statements if no adjustments are made?
a. inventory, accounts payable, net income
b. inventory, sales, cost of goods sold, accounts receivable
c. sales, cost of goods sold, accounts receivable, accounts payable.
d. accounts receivable, accounts payable

ANS: C DIF: M OBJ: 1, 2
2. The material sale of inventory items by a parent company to an affiliated company
a. enters the consolidated revenue computation only if the transfer was the result of arm's length bargaining.
b. affects consolidated net income under a periodic inventory system but not under a perpetual inventory system.
c. does not result in consolidated income until the merchandise is sold to outside entities.
d. does not require a working paper adjustment if the merchandise was transferred at cost.

ANS: C DIF: E OBJ: 1, 2
3. Williard Corporation regularly sells inventory items to its subsidiary, Petty, Inc. If unrealized profits in Petty's 20X1 year-end inventory exceed the unrealized profits in its $20 \times 2$ year-end inventory, combined a. cost of sales will be less than consolidated cost of sales in 20X2.
b. gross profit will be greater than consolidated gross profit in 20X2.
c. sales will be less than consolidated sales in 20X2.
d. cost of sales will be greater than consolidated cost of sales in 20X2.

ANS: D DIF: D OBJ: 1, 2
4. Sally Corporation, an $80 \%$-owned subsidiary of Reynolds Company, buys half of its raw materials from Reynolds. The transfer price is exactly the same price as Sally pays to buy identical raw materials from outside suppliers and the same price as Reynolds sells the materials to unrelated customers. In preparing consolidated statements for Reynolds Company and Subsidiary
a. the intercompany transactions can be ignored because the transfer price represents arm's length bargaining.
b. any unrealized profit from intercompany sales remaining in Reynolds' ending inventory must be offset against the unrealized profit in Reynolds' beginning inventory.
c. any unrealized profit on the intercompany transactions in Sally's ending inventory is eliminated in its entirety.
d. eighty percent of any unrealized profit on the intercompany transactions in Sally's ending inventory is eliminated.

ANS: C DIF: M OBJ: 1, 2
5. Cattle Company sold inventory with a cost of $\$ 40,000$ to its $90 \%$-owned subsidiary, Range Corp., for $\$ 100,000$ in $20 \times 1$. Range resold $\$ 75,000$ of this inventory for $\$ 100,000$ in 20X1. The amount of inventory reported on the consolidated financial statements at the end of 20X1 is $\qquad$ .
a. \$10,000
b. \$18,000
c. \$21,000
d. \$30,000

ANS: A DIF: M OBJ: 1, 2
6. Diller owns $80 \%$ of Lake Company common stock. During October 20X7, Lake sold merchandise to Diller for $\$ 300,000$. On December 31, 20X7, one-half of this merchandise remained in Diller's inventory. For 20x7, gross profit percentages were $30 \%$ for Diller and $40 \%$ for Lake. The amount of unrealized profit in the ending inventory on December 31, 20X7 that should be eliminated in consolidation is $\qquad$ .
a. \$80,000
b. \$60, 000
c. \$32,000
d. \$30,000

ANS: B DIF: M OBJ: 1, 2
7. Perry, Inc. owns a $90 \%$ interest in Brown Corp. During 20X6, Brown sold $\$ 100,000$ in merchandise to Perry at a $30 \%$ gross profit. Ten percent of the goods are unsold by Perry at year end. The noncontrolling interest will receive what gross profit as a result of these sales?
a. \$0
b. \$2,700
c. $\$ 3,000$
d. \$27,000

ANS: B
DIF: M
OBJ: 1, 2
8. On January 1, 20X1 Bullock, Inc. sells land to its $80 \%$-owned subsidiary, Humphrey Corporation, at a $\$ 20,000$ gain. The land is still held by Humphrey on December 31, 20X3. What is the effect of the intercompany sale of land on consolidated net income?
a. Consolidated net income will be the same as it would have been had the sale not occurred.
b. Consolidated net income will be $\$ 20,000$ less than it would have been had the sale not occurred.
c. Consolidated net income will be $\$ 16,000$ less than it would have been had the sale not occurred.
d. Consolidated net income will be $\$ 20,000$ greater than it would have been had the sale not occurred.

ANS: A DIF: E OBJ: 3
9. Emron Company owns a $100 \%$ interest in the common stock of the Dietz

Company. On January 1, 20X2, Emron sold Dietz a fixed asset that Dietz will use over a 5 -year period. The asset was sold at a $\$ 5,000$ profit. In the consolidated statements, this profit will
a. not be recorded.
b. be recognized over 5 years.
c. be recognized in the year of sale.
d. be recognized when the asset is resold to outside parties at the end of its period of use.

ANS: B DIF: M OBJ: 3
10. Pease Corporation owns $100 \%$ of Sade Corporation common stock. On January 2, 20X6, Pease sold machinery with a carrying amount of $\$ 30,000$ to Sade for $\$ 50,000$. Sade is depreciating the acquired machinery over a 5-year life using the straight-line method. The net adjustments to compute the $20 \times 6$ and $20 \times 7$ consolidated income before income tax would be an increase (decrease) of

|  | $20 \times 6$ |
| :--- | :--- |
| a. $\$(16,000)$ | $\frac{20 \times 7}{\$ 4,000}$ |
| b. $\$(16,000)$ | $\$ 0$ |
| c. $\$(20,000)$ | $\$ 4,000$ |
| d. $\$(20,000)$ | $\$ 0$ |

ANS: A DIF: D OBJ: 3
11. On January 1, 20X1, Poe Corp. sold a machine for $\$ 900,000$ to Saxe Corp., its wholly-owned subsidiary. Poe paid $\$ 1,100,000$ for this machine. On the sale date, accumulated depreciation was $\$ 250,000$. Poe estimated a $\$ 100,000$ salvage value and depreciated the machine on the straight-line method over 20 years, a policy that Saxe continued. In Poe's December 31, 20X1, consolidated balance sheet, this machine should be included in cost and accumulated depreciation as

Cost
a. $\$ 1,100,000$
b. \$1,100, 000
c. \$ 900,000
d. \$ 850,000

Accumulated Depreciation
\$300, 000
\$290, 000
\$ 40,000
\$ 42,500

ANS: A
DIF: M
OBJ: 3
12. Porch Company owns a $90 \%$ interest in the Screen Company. Porch sold Screen a milling machine on January 1, 20X1, for $\$ 50,000$ when the book value of the machine on Porch's books was $\$ 40,000$. Porch financed the sale with Screen signing a 3-year, $8 \%$ interest, note for the entire $\$ 50,000$. The machine will be used for 10 years and depreciated using the straight-line method. The following amounts related to this transaction were located on the companies trial balances:

Interest Revenue \$4,000
Interest Expense \$4,000
Depreciation Expense \$5,000
Based upon the information related to this transaction what will be the amounts eliminated in preparing the consolidated financial statements?

|  | Interest Revenue | Interest Expense | Depreciation Expense |
| :---: | :---: | :---: | :---: |
| a. | 4,000 | 4,000 | 5,000 |
| b. | 4,000 | 4,000 | 1,000 |
| c. | 3,600 | 3,600 | 900 |
| d. | 3,600 | 3,600 | 4,500 |

ANS: B DIF: M OBJ: 3
13. On $1 / 1 / \mathrm{X} 1$ Peck sells a machine with a $\$ 20,000$ book value to its subsidiary Shea for $\$ 30,000$. Shea intends to use the machine for 4 years. On 12/31/X2 Shea sells the machine to an outside party for $\$ 14,000$. What amount of gain or (loss) for the sale of assets is reported on the consolidated financial statements?
a. loss of \$6,000
b. loss of \$1,000
c. gain of $\$ 4,000$
d. gain of $\$ 14,000$

ANS: C DIF: M OBJ: 3
14. Stroud Corporation is an $80 \%$-owned subsidiary of Pennie, Inc., acquired by Pennie several years ago. On January 1, 20X2, Pennie sold land with a book value of $\$ 60,000$ to Stroud for $\$ 90,000$. Stroud resold the land to an unrelated party for $\$ 100,000$ on September 26, 20X3. The land will be included in the December 31, 20X2 consolidated balance sheet of Pennie, Inc. and Subsidiary at $\qquad$ .
a. \$48,000
b. \$60, 000
c. \$72,000
d. \$90,000

ANS: B
DIF: M
OBJ: 3
15. Stroud Corporation is an $80 \%$-owned subsidiary of Pennie, Inc., acquired by Pennie several years ago. On January 1, 20X2, Pennie sold land with a book value of $\$ 60,000$ to Stroud for $\$ 90,000$. Stroud resold the land to an unrelated party for $\$ 100,000$ on September 26, 20X3. The gain from sale of land that will appear in the consolidated income statements for 20X2 and 20X3, respectively, is $\qquad$ _.
a. \$0 and \$10,000
b. \$0 and \$40,000
c. $\$ 30,000$ and $\$ 10,000$
d. \$30, 000 and $\$ 40,000$

ANS: B
DIF: E
OBJ: 3
16. Company $P$ owns $100 \%$ of the common stock of Company $S$. Company $P$ is constructing an asset for Company $S$ that will be used in Company S's manufacturing operations over a 5 -year period. The asset was $50 \%$ complete at the end of 20X1 and was completed on December 31, 20X2. Company $P$ is recording the construction under the percentage of completion method. The asset was put into use by Company $S$ on January 1, 20X3. The profit on the asset was estimated to be $\$ 50,000$. Actual results complied to the estimate. On the consolidated statements, the profit will appear as

|  | $20 X 1$ |  | $\frac{20 X 2}{200}$ | $20 X 3$ |  | $\frac{20 X 4-20 X 7}{}$ |
| :--- | ---: | ---: | ---: | ---: | :---: | :---: |
| a. | 0 | 50,000 | 0 | 0 |  |  |
| b. 25,000 | 25,000 | 0 | 0 |  |  |  |
| c. | 0 | 0 | 10,000 | 10,000 |  |  |
| d. | 0 | 0 | 50,000 | 0 |  |  |

ANS: C DIF: D OBJ: 4
17. The following accounts were noted in reviewing the trial balance for Parent Co. and Subsidiary Corp.:

Assets under Construction
Contracts Receivable
Billings on Construction in Progress Earned Income on Long-Term Contracts Contracts Payable

Which of these accounts do you expect to eliminate when producing Parent
Co. consolidated financial statements?
a. Assets under Construction; Billings on Construction in Progress; Earned Income on Long-Term Contracts
b. Contracts Receivable; Billings on Construction in Progress; Earned Income on Long-Term Contracts
c. Assets under Construction; Contracts Receivable; Billings on Construction in Progress; Earned Income on Long-Term Contracts; Contracts Payable
d. Contracts Receivable; Billings on Construction in Progress; Earned Income on Long-Term Contracts; Contracts Payable

ANS: D
DIF: E
OBJ: 4
18. During 20X3, a parent company billed its 100\%-owned subsidiary for computer services at the rate of $\$ 1,000$ per month. At year end, one month's bill remained unpaid. As a part of the consolidation process, net income
a. should be reduced $\$ 12,000$.
b. should be reduced $\$ 1,000$.
c. needs no adjustment.
d. needs an adjustment, but the amount is not provided by this information.

ANS: C DIF: E OBJ: 5
19. On January 1, 20X1, a parent loaned $\$ 30,000$ to its $100 \%$-owned subsidiary on a 5 -year, $8 \%$ note. The note requires a principal payment at the end of each year of $\$ 6,000$ plus payment of interest accrued to date. The following accounts require adjustment in the consolidation process:

| Assets | Debt | Controlling <br> Retained Earnings |
| :---: | :---: | :---: |
| a. Yes | Yes | Yes |
| b. No | No | Yes |
| c. Yes | Yes | No |
| d. No | No | No |

ANS: C
DIF: M
OBJ: 5
20. Phelps Co. uses the sophisticated equity method to account for the $80 \%$ investment in its subsidiary Shore Corp. Based upon the following information what amount does Phelps Co. record as subsidiary income?

Phelps internally generated income:
Shore internally generated income:
Intercompany profit on Shore beginning inventory:
Intercompany profit on Shore ending inventory:
\$250, 000
\$ 50,000
\$ 10, 000
\$ 15,000
a. \$50, 000
b. $\$ 44,000$
c. \$40,000
d. $\$ 36,000$

ANS: D
DIF: M
OBJ: 6

## PROBLEM

1. Account balances are as of December $31,20 \times 3$ except where noted.

|  | Pipe | Match |
| :--- | ---: | ---: |
| Selected Income Statement Amounts: |  |  |
| Sales | $\$ 710,000$ | $\$ 530,000$ |
| Cost of Goods Sold | 490,000 | 370,000 |
| Gain on Sale of Equipment |  | 21,000 |
| Earnings from Investment in subsidiary | 61,000 |  |
| Interest Revenue | 2,880 |  |
| Interest Expense |  | 2,880 |
| Depreciation | 25,000 | 20,000 |

Selected Balance Sheet Amounts \{Debits/(Credits)\}: Cash
Notes Receivable

| $\$ 50,000$ | $\$ 15,000$ |
| ---: | ---: |
| 36,000 |  |
| 229,000 | 150,000 |
| 440,000 | 360,000 |
| $(200,000)$ | $(120,000)$ |
| 189,000 |  |
|  | $(36,000)$ |
| $(100,000)$ | $(10,000)$ |
| $(250,000)$ | $(40,000)$ |
| $(402,000)$ | $(140,000)$ |

Selected Statement of Retained Earnings Amounts:
Beginning Balance, December 31, x2
$\begin{array}{rrr}\$ 272,000 & \$ 100,000 \\ 210,000 & 70,000 \\ 80,000 & & 30,000\end{array}$
Dividends Paid

Additional Information:
On January 2, 20X3 Pipe purchased $90 \%$ of Match for $\$ 155,000$. On that date Match's shareholders' equity equaled $\$ 150,000$ and the fair values of Match's assets and liabilities equaled their carrying amounts. Excess, if any, is attributed to patents and is amortized over 10 years.

On September 4, 20X3 Match paid cash dividends of $\$ 30,000$.
On January 3, 20X3 Match sold equipment with an original cost of $\$ 30,000$ and a carrying value of $\$ 15,000$ to Pipe for $\$ 36,000$. The equipment had a remaining useful life of 3 years. Straight-line depreciation is used.

On January 4, $20 \times 3$ Match signed an $8 \%$ Note Payable. All interest payments were made as of December 31, 20X3.

During the year Match sold merchandise to Pipe for $\$ 60,000$, which included a profit of $\$ 20,000$. At year end $50 \%$ of the merchandise remained in Pipe's inventory.

Required:

1. Which method is Pipe using to account for the investment in Match? How do you know?
2. What elimination entry(ies) are associated with the elimination of intercompany profits due to the sale of merchandise?
3. What elimination entry(ies) are necessary with the sale of equipment by Match to Pipe?
4. What elimination entry(ies) are associated with the note to Match? Why are the entry(ies) made?

ANS:

1. Sophisticated Equity:

| Match Net Income | $\$ 63,000$ <br> $(2,000)$ |
| :--- | :--- |
| Amortization of patent |  |
| Earnings from |  |
| Investment in subsidiary | $\$ 61,000$ |
| $======$ |  |

2. Sales 60,000 Cost of Goods Sold 60,000

Cost of Goods Sold 10,000
Inventory
(50\% x \$20,000)
3. Gain on Sale of Equipment Equipment

21,000
21, 000
Accumulated Depreciation
7,000
Depreciation Expense (\$21,000/3 years)
4. Notes Payable

36,000
Notes Receivable
Interest Revenue
Interest Expense
2,880
36, 000

2,880
The note receivable and payable, and the associated interest revenue and expense should not be included on the consolidated financial statements.

DIF: E OBJ: 1, 2, 3, 5, 6
2. On January 1, 20X1, Prange Company acquired $100 \%$ of the common stock of Seaman Company for $\$ 600,000$. On this date Seaman had total owners' equity of $\$ 400,000$. Any excess of cost over book value is attributable to a patent, which is to be amortized over 10 years.

During 20X1 and 20X2, Prange has appropriately accounted for its investment in Seaman using the simple equity method.

On January 1, 20X2, Prange held merchandise acquired from Seaman for $\$ 30,000$. During 20X2, Seaman sold merchandise to Prange for $\$ 100,000$, of which \$20,000 is held by Prange on December 31, 20X2. Seaman's gross profit on all sales is $40 \%$.

On December 31, 20X2, Prange still owes Seaman \$20,000 for merchandise acquired in December.

Required:
Complete the Figure 4-1 worksheet for consolidated financial statements for the year ended December 31, 20X2.

ANS:
For the worksheet solution, please refer to Answer 4-1.
Eliminations and Adjustments:
(CY) Eliminate the current-year entries made in the investment account and in the Seaman income account.
(EL) Eliminate the Seaman Company equity balances at the beginning of the year against the investment account.
(D) Distribute the $\$ 200,000$ excess of cost over book value to patent.
(A) Amortize the patent over 10 years, with \$20,000 for 20X1 charged to retained earnings, and \$20,000 for 20X2 to operating expenses.
(BI) Eliminate the $\$ 12,000$ of gross profit in the beginning inventory.
(IS) Eliminate the entire intercompany sales of \$100,000.
(EI) Eliminate the $\$ 8,000$ of gross profit in the ending inventory.
(IA) Eliminate the \$20,000 intercompany accounts receivable and payable.

```
Consolidated Net Income
    To Noncontrolling Interest: 0
    To Controlling Interest:
    100,000 + 100%(90,000 + 12,000 - 8,000) - 20,000 = 174,000
DIF: M OBJ: 2
```

3. On January 1, 20X1, Prange Company acquired $80 \%$ of the common stock of Seaman Company for $\$ 500,000$. On this date Seaman had total owners' equity of $\$ 400,000$. Any excess of cost over book value is attributable to patent, which is to be amortized over 20 years.

During 20X1 and 20X2, Prange has appropriately accounted for its investment in Seaman using the simple equity method.

On January 1, 20X2, Prange held merchandise acquired from Seaman for $\$ 30,000$. During 20X2, Seaman sold merchandise to Prange for $\$ 100,000$, of which $\$ 20,000$ is held by Prange on December 31, 20X2. Seaman's gross profit on all sales is $40 \%$.

On December 31, 20X2, Prange still owes Seaman \$20,000 for merchandise acquired in December.

Required:
Complete the Figure 4-2 worksheet for consolidated financial statements for the year ended December 31, 20X2.

ANS:

For the worksheet solution, please refer to Answer 4-2.
Eliminations and Adjustments:
(CY) Eliminate the current-year entries made in the investment account and in the Seaman income account.
(EL) Eliminate 80\% of the Seaman Company equity balances at the beginning of the year against the investment account.
(D) Distribute the $\$ 180,000$ excess of cost over book value to patent.
(A) Amortize the patent over 20 years, with \$9,000 for 20X1 charged to retained earnings, and \$9,000 for 20X2 to operating expenses.
(BI) Eliminate the $\$ 12,000$ of gross profit in the beginning inventory.
(IS) Eliminate the entire intercompany sales of \$100,000.
(EI) Eliminate the $\$ 8,000$ of gross profit in the ending inventory.
(IA) Eliminate the \$20,000 intercompany accounts receivable and payable.

Consolidated Net Income:
To Noncontrolling Interest: $20 \%(90,000+12,000-8,000)=18,800$
To Controlling Interest:
$100,000+80 \%(90,000+12,000-8,000)-9,000=166,200$

OBJ: 2
4. Selected information from the separate and consolidated balance sheets and income statements of Palo Alto, Inc. and its subsidiary, Stanford Co., as of December 31, 20X1, and for the year then ended is as follows:

|  | Palo Alto | Stanford | ```Consoli- dated``` |
| :---: | :---: | :---: | :---: |
| Balance sheet accounts |  |  |  |
| Accounts receivable. | \$ 26,000 | \$19, 000 | \$ 42,000 |
| Inventory. | 30,000 | 25,000 | 50,000 |
| Investment in Stanford | 67,000 | - - | -- |
| Goodwill. | -- | -- | 30,000 |
| Noncontrolling interest | -- | -- | 10,000 |
| Stockholders' equity. | 154,000 | 50,000 | 154, 000 |
| Income statement accounts |  |  |  |
| Revenues | \$200, 000 | \$140, 000 | \$300, 000 |
| Cost of goods sold. | 150, 000 | 110,000 | 225,000 |
| Gross profit | 50,000 | 30,000 | 75,000 |
| Equity in earnings of Stanford. | \$9,000 | -- | -- |
| Net income. | \$36,000 | \$20, 000 | \$36,000 |

## Additional information

During 20X1, Palo Alto sold goods to Stanford at the same markup on cost that Palo Alto uses for all sales. At December 31, 20X1, Stanford had not paid for all of these goods and still held 50\% of them in inventory.

Palo Alto acquired its interest in Stanford five years earlier (as of December 31, 20X1.)

Required:
For each of the following items, calculate the required amount.
a. The amount of intercompany sales from Palo Alto to Stanford during 20X1.
b. The amount of Stanford's payable to Palo Alto for intercompany sales as of December 31, 20X1.
c. In Palo Alto's December 31, 20X1, consolidated balance sheet, the carrying amount of the inventory that Stanford purchased from Palo Alto.
d. The percent of noncontrolling interest ownership in Stanford as of December 31, 20X1.

ANS:
a. \$40,000
b. $\$ 3,000$
c. \$15,000
d. 20\%

DIF: M OBJ: 2, 3
5. On January 1, 20X1, Pinto Company purchased an $80 \%$ interest in Sands Inc. for $\$ 1,000,000$. The equity balances of Sands at the time of the purchase were as follows:

```
Common stock ($10 par)................................ $100,000
Paid-in capital in excess of par....................... 400,000
Retained earnings....................................... 500,000
```

Any excess of cost over book value is attributable to goodwill.
No dividends were paid by either firm during 20X6. The following trial balances were prepared for Pinto Company and its subsidiary, Sands Inc., on December 31, 20X6:

|  | Pinto | Sands |
| :---: | :---: | :---: |
| Cash. | \$ 120,000 | \$ 62,000 |
| Accounts receivable | 290, 000 | 194,000 |
| Inventory | 350, 000 | 176, 000 |
| Land | 800,000 | 180, 000 |
| Buildings and equipment | 1,100, 000 | 800, 000 |
| Accumulated depreciation | (180, 000) | (120, 000) |
| Investment in Sands. | 600, 000 | - |
| Accounts payable | (110, 000) | $(50,000)$ |
| Common stock, \$10 par | (800, 000) | (100, 000) |
| Paid-in capital in excess of | (660, 000) | (400, 000) |
| Retained earnings | (1,340, 000) | (650, 000) |
| Sales. | (600, 000) | ( 300, 000) |
| Other income | (40, 000) | (12, 000) |
| Cost of goods sold | 320, 000 | 180,000 |
| Other expenses | 150,000 | 32, 000 |
| Total | 0 | 0 |

Sands sold a machine to Pinto Company for $\$ 40,000$ on January 1, 20X6. The machine cost Sands $\$ 50,000$, and $\$ 25,000$ of accumulated depreciation had been recorded as of the sale date. The machine had a 5-year remaining life and no salvage value. Pinto Company is using straightline depreciation.

Since the purchase date, Pinto has sold merchandise for resale to Sands, Inc. at a mark-up on cost of $25 \%$. Sales during $20 \times 6$ were $\$ 150,000$. The inventory of these goods held by Sands was \$15,000 on January 1, 20X6, and \$18,000 on December 31, 20X6.

## Required:

Prepare a consolidated income statement for 20X6, including income distribution schedules to support your distribution of income to the Noncontrolling and controlling interest accounts.

ANS:
Determination and Distribution of Excess Schedule

| Price paid | \$1, 000, 000 |
| :---: | :---: |
| Interest acquired, 80\% x \$1,000,000 | 800, 000 |
| Goodwill | \$ 200,000 |

## Pinto Company and Subsidiary Sands Inc.

 Consolidated Income StatementFor the Year Ended December 31, 20X6

| Sales (600,000 + 300,000-150,000) | \$750, 000 |
| :---: | :---: |
| Cost of goods sold |  |
| $(320,000+180,000-150,000-3,000+3,600)$ | 350,600 |
| Gross profit | \$399,400 |
| Other expenses (\$150,000 + \$32,000-\$3,000) | 179, 000 |
| Operating income | \$220,400 |
| Other income (\$40,000 + \$12,000 - \$15,000) | 37,000 |
| Consolidated Net Income. | \$257,400 |
| Less: noncontrolling interest | 17,600 |
| Consolidated net income | \$239,800 |

Subsidiary Sands Inc. Income Distribution


Parent Pinto Company Income Distribution

| Deferred profit in ending inventory..... \$3,600 | Internally generated net income......... Realized profit in beginning inventory $80 \%$ x Sands income of \$88,000. | $\begin{array}{r} \$ 170,000 \\ 3,000 \\ 70,400 \end{array}$ |
| :---: | :---: | :---: |
|  | Controlling interest. | \$239,800 |

DIF: M OBJ: 2, 3
6. On January 1, 20X1, Parent Company acquired $100 \%$ of the common stock of Subsidiary Company for $\$ 750,000$. On this date Subsidiary had total owners' equity of \$540,000.

Any excess of cost over book value is attributable to land, undervalued \$10,000, and to goodwill.

During 20X1 and 20X2, Parent has appropriately accounted for its investment in Subsidiary using the simple equity method.

On January 1, 20X2, Parent held merchandise acquired from Subsidiary for \$10,000. During 20X2, Subsidiary sold merchandise to Parent for $\$ 100,000$, of which $\$ 20,000$ is held by Parent on December 31, 20X2. Subsidiary's usual gross profit on affiliated sales is 40\%.

On December 31, 20X2, Parent still owes Subsidiary \$20,000 for merchandise acquired in December.

On January 1, 20X2, Parent sold to Subsidiary some equipment with a cost of $\$ 50,000$ and a book value of $\$ 20,000$. The sales price was $\$ 40,000$.
Subsidiary is depreciating the equipment over a five-year life, assuming no salvage value and using the straight-line method.

## Required:

Complete the Figure 4-3 worksheet for consolidated financial statements for the year ended December 31, 20X2.

ANS:
For the worksheet solution, please refer to Answer 4-3.
Eliminations and Adjustments:
(CY) Eliminate the current-year entries made in the investment account and in the subsidiary income account.
(EL) Eliminate the Subsidiary Company equity balances at the beginning of the year against the investment account.
(D) Distribute the $\$ 210,000$ excess of cost over book value land (\$10,000) and to goodwill.
(BI) Eliminate the $\$ 4,000$ of gross profit in the beginning inventory.
(IS) Eliminate the entire intercompany sales of $\$ 100,000$.
(EI) Eliminate the $\$ 8,000$ of gross profit in the ending inventory.
(IA) Eliminate the $\$ 20,000$ intercompany accounts receivable and payable.
(F2) Eliminate the $\$ 4,000$ of excess depreciation for $20 \times 2$ on the transferred equipment.
(F1) Eliminate the $\$ 20,000$ gain on sale of equipment.

Consolidated Net Income:
To Noncontrolling Interest: 0
To Controlling Interest: 130,000-20,000 + 4,000 + 100\%(100,000 + $4,000-8,000)=210,000$

DIF: M OBJ: 2, 3
7. On January 1, 20X1, Parent Company acquired $80 \%$ of the common stock of Subsidiary Company for $\$ 560,000$. On this date Subsidiary had total owners' equity of $\$ 540,000$, including retained earnings of $\$ 240,000$. During 20X1, Subsidiary had net income of $\$ 60,000$ and paid no dividends.

Any excess of cost over book value is attributable to land, undervalued \$10,000, and to goodwill.

During 20X1 and 20X2, Parent has appropriately accounted for its investment in Subsidiary using the cost method

On January 1, 20X2, Parent held merchandise acquired from Subsidiary for \$10,000. During 20X2, Subsidiary sold merchandise to Parent for $\$ 100,000$, of which $\$ 20,000$ is held by Parent on December 31, 20X2. Subsidiary's usual gross profit on affiliated sales is $40 \%$.

On December 31, 20X2, Parent still owes Subsidiary \$20,000 for merchandise acquired in December.

On January 1, 20X2, Parent sold to Subsidiary some equipment with a cost of $\$ 50,000$ and a book value of $\$ 20,000$. The sales price was $\$ 40,000$. Subsidiary is depreciating the equipment over a five-year life, assuming no salvage value and using the straight-line method.

Required:
Complete the Figure 4-4 worksheet for consolidated financial statements for the year ended December 31, 20X2.

ANS:

For the worksheet solution, please refer to Answer 4-4.
Eliminations and Adjustments:
(CV) Convert to the simple equity method as of January 1, $20 \times 2$. ( $80 \%$ of $\$ 60,000$ increase in retained earnings from January 1, 20X1 to January 1, 20X2.)
(CY2) Eliminate the current-year dividend income against dividends declared by Subsidiary.
(EL) Eliminate $80 \%$ of the Subsidiary Company equity balances at the beginning of the year against the investment account.
(D) Distribute the $\$ 128,000$ excess of cost over book value to land (\$8,000) and to goodwill.
(BI) Eliminate the $\$ 4,000$ of gross profit in the beginning inventory.
(IS) Eliminate the entire intercompany sales of \$100,000.
(EI) Eliminate the $\$ 8,000$ of gross profit in the ending inventory.
(IA) Eliminate the $\$ 20,000$ intercompany accounts receivable and payable.
(F2) Eliminate the $\$ 4,000$ of excess depreciation for $20 \times 2$ on the transferred equipment.
(F1) Eliminate the $\$ 20,000$ gain on sale of equipment, restore the asset to \$50,000, and restore the \$30,000 of accumulated depreciation written off upon transfer.

Consolidated Net Income:
To Noncontrolling Interest: $20 \%(100,000+4,000-8,000)=19,200$
To Controlling Interest: 130,000 - 20,000 + 4,000 + 80\%(100,000 + $4,000-8,000)=190,800$

DIF: M OBJ: 2, 3
8. On January 1, 20X1, Powers Company acquired $80 \%$ of the common stock of Sculley Company for $\$ 195,000$. On this date Sculley had total owners' equity of $\$ 200,000$ (common stock, other paid-in capital and retained earnings of \$10,000, \$90,000 and \$100,000 respectively).

Any excess of cost over book value is attributable to inventory (worth \$6,250 more than cost), to equipment (worth \$12,500 more than book value), and to patents. FIFO is used for inventories. The equipment has a remaining life of five years and straight-line depreciation is used. The excess to patents is to be amortized over 20 years. The Powers company concept (pro rata fair value approach) is to be used in any write up of assets.

Powers 7\% Bonds Payable are due in 20X8 and Sculley 12\% Bonds are due in 20X5.

On July 1, 20X2 Sculley borrowed \$100,000 from Powers with a 10\% 1-Year Note.

During 20X1 and 20X2, Powers has appropriately accounted for its investment in Sculley using the cost method.

On January 1, 20X2, Powers held merchandise acquired from Sculley for \$10,000. During 20X2, Sculley sold merchandise to Powers for \$50,000, $\$ 20,000$ of which is still held by Powers on December 31, 20X2. Sculley's usual gross profit on affiliated sales is 50\%.

On December 31, 20X1, Powers sold equipment to Sculley at a gain of \$10,000. During 20X2, the equipment was used by Sculley. Depreciation is being computed using the straight-line method, a five-year life, and no salvage value.

Required:
a. Using the information above or on the Figure 4-5 worksheet, prepare a determination and distribution of excess schedule.
b. Complete the Figure 4-5 worksheet for consolidated financial statements for the year ended December 31, $20 X 2$.

ANS:
a. Determination and Distribution of Excess Schedule:

| Price paid for investment in Sculley Co |  | \$195, 000 |
| :---: | :---: | :---: |
| Less book value of interest acquired: |  |  |
| Common stock | \$ 10,000 |  |
| Other paid-in capital | 90,000 |  |
| Retained earnings | 100,000 |  |
| Total stockholders' equity | \$200, 000 |  |
| Interest acquired | 80\% | 160,000 |
| Excess of cost over book value (debit balance).............. |  | \$ 35,000 |

Allocable to:
Inventory (\$6,250 x 80\%).............. \$ 5,000 Dr. Equipment (\$12,500 x 80\%)............. Patents.

10,000 Dr. \$20,000 Dr.
======
Amortization:

b. For the worksheet solution, please refer to Answer 4-5.

Eliminations and Adjustments:
(CV) Convert to the simple equity method as of January 1, 20X2 ((80\% of \$50,000 increase in retained earnings from January 1, 20X1 to January 1, 20X2).
(CY2) Eliminate the current-year dividend income against dividends declared by Sculley.
(EL) Eliminate $80 \%$ of the Sculley Company equity balances at the beginning of the year against the investment account.
(D) Distribute the $\$ 35,000$ excess of cost over book value to inventory, equipment, and patent.

Note: The $\$ 5,000$ ( $80 \%$ of $\$ 6,250$ ) write $u p$ to inventory is charged to Powers's retained earnings since FIFO is used.
(A1) Amortize the equipment write up over 5 years, with $\$ 2,000$ for 20X1 charged to retained earnings, and \$2,000 for 20X2 to operating expenses.
(A2) Amortize the patent over 20 years, with \$1,000 for 20X1 charged to retained earnings, and \$1,000 for 20X2 to operating expenses.
(LN2) Eliminate \$5,000 intercompany interest revenue and interest expense. (\$100,000 x $10 \% \times 6$ months)
(LN1) Eliminate $\$ 100,000$ intercompany notes receivable and notes payable.
(BI) Eliminate the $\$ 5,000$ of gross profit in the beginning inventory.
(IS) Eliminate the entire intercompany sales of \$50,000.
(EI) Eliminate the $\$ 10,000$ of gross profit in the ending inventory.
(F2) Eliminate the $\$ 2,000$ of excess depreciation for $20 \times 2$ on the transferred equipment.
(F1) Eliminate the $\$ 10,00020 \times 1$ gain on sale of equipment and restore the equipment account to cost.

Consolidated Net Income:
To Noncontrolling Interest: .2(105,000 + 5,000-10,000) $=20,000$
To Controlling Interest: 100,000 + 2,000 + .8(105,000 + 5,000 -10,000)-2,000-1,000 = 179,000

DIF: D OBJ: 2, 3, 5
9. On January 1, 20X1, Powers Company acquired $80 \%$ of the common stock of Sculley Company for $\$ 195,000$. On this date Sculley had total owners' equity of $\$ 200,000$ (common stock, other paid-in capital, and retained earnings of $\$ 10,000, \$ 90,000$, and $\$ 100,000$ respectively).

Any excess of cost over book value is attributable to inventory (worth $\$ 6,250$ more than cost), to equipment (worth $\$ 12,500$ more than book value), and to patents. FIFO is used for inventories. The equipment has a remaining life of five years and straight-line depreciation is used. The excess to the patents is to be amortized over 20 years. The Powers company concept (pro rata fair value approach) is to be used in any write up of assets.

During 20X1 and 20X2, Powers has appropriately accounted for its investment in Sculley using the simple equity method.

Powers 7\% Bonds Payable are due in 20X8 and Sculley 12\% Bonds are due in 20X5.

On July 1, 20X2 Sculley borrowed \$100,000 from Powers with a 10\% 1-Year Note.

On January 1, 20X2, Powers held merchandise acquired from Sculley for \$10,000. During 20X2, Sculley sold merchandise to Powers for \$50,000, $\$ 20,000$ of which is still held by Powers on December 31, 20X2. Sculley's usual gross profit on affiliated sales is $50 \%$.

On December 31, 20X1, Powers sold equipment to Sculley at a gain of \$10,000. During 20X2, the equipment was used by Sculley. Depreciation is being computed using the straight-line method, a five-year life, and no salvage value.

## Required:

a. Using the information above or on the Figure 4-6 worksheet, prepare a determination and distribution of excess schedule.
b. Complete the Figure 4-6 worksheet for consolidated financial statements for the year ended December 31, 20X2.

ANS:
a. Determination and Distribution of Excess Schedule:

Price paid for investment in Sculley Co. \$195,000
Less book value of interest acquired:
Common stock.......................... \$ 10,000
Other paid-in capital 90,000
Retained earnings................... 100,000
Total stockholders' equity.......... \$200,000
Interest acquired..................... 80\% 160,000
Excess of cost over book value (debit balance)

Allocable to:
Inventory (\$6,250 x 80\%)..............
Equipment (\$12,500 x 80\%).............
Patents.

Amortization:

|  |  | $20 \times 1$ |  | 20X2 |
| :--- | :--- | :--- | ---: | ---: | ---: |
| Retained Earnings, January 1............ |  |  | $\$ 8,000$ |  |
| Inventory - to Cost of Goods Sold...... | $\$ 5,000$ |  |  |  |
| Equipment to Operating Expenses........ | 2,000 | 2,000 |  |  |
| Patents - to Operating Expenses........ | 1,000 | 1,000 |  |  |

b. For the worksheet solution, please refer to Answer 4-6.

Eliminations and Adjustments:
(CY) Eliminate the current-year entries made in the investment account and in the Sculley income account.
(EL) Eliminate $80 \%$ of the Sculley Company equity balances at the beginning of the year against the investment account.
(D) Distribute the $\$ 35,000$ excess of cost over book value to inventory, equipment, and patent.

Note: The $\$ 5,000$ ( $80 \%$ of $\$ 6,250$ ) write up to inventory is charged to Powers's retained earnings since FIFO is used.
(A1) Amortize the equipment write up over 5 years, with \$2,000 for 20X1 charged to retained earnings, and \$2,000 for 20X2 to operating expenses.
(A2) Amortize the patent over 20 years, with \$1,000 for 20X1 charged to retained earnings, and \$1,000 for 20X2 to operating expenses.
(LN2) Eliminate \$5,000 intercompany interest revenue and interest expense. (\$100,000 x 10\% x 6 months)
(LN1) Eliminate \$100,000 intercompany notes receivable and notes payable.
(BI) Eliminate the $\$ 5,000$ of gross profit in the beginning inventory.
(IS) Eliminate the entire intercompany sales of $\$ 50,000$.
(EI) Eliminate the $\$ 10,000$ of gross profit in the ending inventory.
(F2) Eliminate the $\$ 2,000$ of excess depreciation for $20 \times 1$ on the transferred equipment.
(F1) Eliminate the \$10,000 20X1 gain on sale of equipment and restore the equipment account to cost.

Consolidated Net Income:
To Noncontrolling Interest: .2(105,000 + 5,000-10,000) $=20,000$
To Controlling Interest: $200,000+2,000+.8(105,000+5,000-$ 10,000) - 2,000-1,000 = 179,000

DIF: D OBJ: 2, 3, 5
10. On January 1, 20X1, Powers Company acquired $80 \%$ of the common stock of Sculley Company for $\$ 195,000$. On this date Sculley had total owners' equity of $\$ 200,000$ (common stock, other paid-in capital, and retained earning of \$10,000, \$90,000, and \$100,000 respectively).

Any excess of cost over book value is attributable to inventory (worth $\$ 6,250$ more than cost), to equipment (worth $\$ 12,500$ more than book value), and to the patents. FIFO is used for inventories. The equipment has a remaining life of five years and straight-line depreciation is used. The excess attributable to the patents is to be amortized over 20 years. The Powers company concept (pro rata fair value approach) is to be used in any write up of assets.

During 20X1 and 20X2, Powers has appropriately accounted for its investment in Sculley using the sophisticated equity method.

On January 1, 20X2, Powers held merchandise acquired from Sculley for $\$ 10,000$. During 20X2, Sculley sold merchandise to Powers for $\$ 50,000$, $\$ 20,000$ of which is still held by Powers on December 31, 20X2. Sculley's usual gross profit on affiliated sales is $50 \%$.

On December 31, 20X1, Powers sold equipment to Sculley at a gain of \$10,000. During 20X2, the equipment was used by Sculley. Depreciation is being computed using the straight-line method, a five-year life, and no salvage value.

## Required:

a. Using the information above or on the Figure 4-7 worksheet, prepare a determination and distribution of excess schedule.
b. Complete the Figure 4-7 worksheet for consolidated financial statements for the year ended December 31, $20 \times 2$.

ANS:
a. Determination and Distribution of Excess Schedule:

| Price paid for investment in Sculley Co |  | \$195, 000 |
| :---: | :---: | :---: |
| Less book value of interest acquired: |  |  |
| Common stock. | \$ 10,000 |  |
| Other paid-in capital | 90,000 |  |
| Retained earnings | 100,000 |  |
| Total stockholders' equity | \$200,000 |  |
| Interest acquired | 80\% | 160,000 |
| Excess of cost over book value (debit balance).............. |  | \$ 35,000 |

Allocable to:
Inventory (\$6,250 x 80\%).............. \$ 5,000 Dr. Equipment (\$12,500 x 80\%).............. Patents.

10,000 Dr. \$20,000 Dr. ======

Amortization:

|  | 20X1 | 20X2 |
| :---: | :---: | :---: |
| Retained Earnings, January 1 |  | \$8,000 |
| Inventory - to Cost of Goods So | \$5,000 |  |
| Equipment to Operating Expenses. | 2,000 | 2,000 |
| Patents - to Operating Expenses | 1,000 | 1,000 |

b. For the worksheet solution, please refer to Answer 4-7.

Eliminations and Adjustments:
NOTE: Eliminations for Sculley's intercompany profits are made first, to facilitate elimination of the January 1, 20X2 adjusted retained earnings of Sculley.
(BI) Eliminate the $\$ 5,000$ of gross profit in the beginning inventory.
(IS) Eliminate the entire intercompany sales of $\$ 50,000$.
(EI) Eliminate the $\$ 10,000$ of gross profit in the ending inventory.
(CY) Eliminate the current-year entries made in the investment account and in the Sculley income account.
(EL) Eliminate 80\% of the Sculley Company adjusted equity balances at the beginning of the year against the investment account.
(D) Distribute the $\$ 27,000$ remaining excess of cost over book value to inventory, equipment, and patent.
(A1) Amortize the equipment write up over 5 years, with \$2,000 for 20X2 charged to operating expenses.
(A2) Amortize the patent over 20 years, with \$1,000 for 20X1 charged to operating expenses.
(F2) Eliminate the $\$ 2,000$ of excess depreciation for $20 \times 2$ on the transferred equipment.
(F1) Eliminate the $\$ 10,00020 \times 1$ gain on sale of equipment and restore the equipment account to cost.

Consolidated Net Income:
To Noncontrolling Interest: $.2(105,000+5,000-10,000)=20,000$
To Controlling Interest: $100,000+2,000+.8(105,000+5,000-$ 10,000) - 2,000-1,000 = 179,000

DIF: M OBJ: 2, 3, 6
11. On January 1, 20X1, Powers Company acquired $80 \%$ of the common stock of Sculley Company for $\$ 195,000$. On this date Sculley had total owners' equity of $\$ 200,000$ (common stock, other paid-in capital, and retained earning of \$10,000, \$90,000, and \$100,000 respectively).

Any excess of cost over book value is attributable to inventory (worth $\$ 6,250$ more than cost), to equipment (worth $\$ 12,500$ more than book value), and to patents. FIFO is used for inventories. The equipment has a remaining life of five years and straight-line depreciation is used. The excess attributable to the patents is to be amortized over 20 years. The Powers company concept (pro rata fair value approach) is to be used in any write up of assets.

During 20X1 and 20X2, Powers has appropriately accounted for its investment in Sculley using the simple equity method.

On January 1, 20X2, Powers held merchandise acquired from Sculley for \$10,000. During 20X2, Sculley sold merchandise to Powers for \$50,000, $\$ 20,000$ of which is still held by Powers on December 31, 20x2. Sculley's usual gross profit on affiliated sales is 50\%.

On December 31, 20X1, Powers sold equipment to Sculley at a gain of \$10,000. During 20X2, the equipment was used by Sculley. Depreciation is being computed using the straight-line method, a five-year life, and no salvage value.

Required:
a. Using the information above or on the Figure 4-8 worksheet, prepare a determination and distribution of excess schedule.
b. Complete the Figure 4-8 worksheet for consolidated financial statements for the year ended December 31, $20 \times 2$.

ANS:
a. Determination and Distribution of Excess Schedule:

Price paid for investment in Sculley Co \$195,000
Less book value of interest acquired:
Common stock........................... \$ 10,000 Other paid-in capital \$ 90,000 Retained earnings.................... 100,000

Total stockholders' equity........... \$200,000 Interest acquired....................... 80\% 160,000
Excess of cost over book value (debit balance)
\$ 35, 000
=======

Allocable to:
Inventory (\$6,250 x 80\%)............... \$ 5,000 Dr. Equipment (\$12,500 x 80\%).............. Patents.

10,000 Dr. $\$ 20,000 \mathrm{Dr}$.
======
Amortization:

|  | 20X1 | 20x2 |
| :---: | :---: | :---: |
| Retained Earnings, January 1 |  | \$8,000 |
| Inventory - to Cost of Goods Sold | \$5,000 |  |
| Equipment to Operating Expenses | 2,000 | 2,000 |
| Patents - to Operating Expenses | 1,000 | 1,000 |

b. For the worksheet solution, please refer to Answer 4-8.

Eliminations and Adjustments:
(CY) Eliminate the current-year entries made in the investment account and in the Sculley income account.
(EL) Eliminate $80 \%$ of the Sculley Company equity balances at the beginning of the year against the investment account.
(D) Distribute the $\$ 35,000$ excess of cost over book value to inventory, equipment, and patent.

Note: The $\$ 5,000$ ( $80 \%$ of $\$ 6,250$ ) write $u p$ to inventory is charged to Powers's retained earnings since FIFO is used.
(A1) Amortize the equipment write up over 5 years, with \$2,000 for 20X1 charged to retained earnings and \$2,000 for 20X2 to operating expenses.
(A2) Amortize the patents over 20 years, with \$1,000 for 20X1 charged to retained earnings, and \$1,000 for 20X2 to operating expenses.
(BI) Eliminate the $\$ 5,000$ of gross profit in the beginning inventory.
(IS) Eliminate the entire intercompany sales of $\$ 50,000$.
(EI) Eliminate the $\$ 10,000$ of gross profit in the ending inventory.
(F2) Eliminate the $\$ 2,000$ of excess depreciation for $20 \times 2$ on the transferred equipment.
(F1) Eliminate the $\$ 10,00020 \times 1$ gain on sale of equipment and restore the equipment account to cost

Consolidated Net Income:
To Noncontrolling Interest: .2(105,000 + 5,000-10,000) $=20,000$
To Controlling Interest: $100,000+2,000+.8(105,000+5,000-$ $10,000)-2,000-1,000=179,000$

DIF: D OBJ: 2, 3, 7
12. On June 1, 20X3, Sprung Company, a wholly-owned subsidiary of Payles Corporation, borrowed \$100,000 from Payles and signed a one-year, 12\% note with interest payable at maturity. On August 1, 20X3, Payles discounted the note at a $15 \%$ annual interest rate at a bank. The proceeds were calculated as follows:


Required:
Prepare the eliminations that would be made on the Figure 4-9 partial worksheet dated December 31, 20X3, and extend the appropriate accounts to the consolidated statements.

ANS:
For the worksheet solution, please refer to Answer 4-9.
Eliminations and Adjustments:
(LN1) Eliminate the internal note receivable account against the note receivable discounted account.
(LN2) Eliminate intercompany interest for 2 months prior to discounting.

DIF: M OBJ: 5

## ESSAY

1. For each of the following intercompany transactions, state the principle to be used in accounting for intercompany gains on current and future consolidated income statements:
a. Gains on merchandise sales
b. Gains on the sale of land
c. Gains on the sale of depreciable fixed assets
d. Interest on intercompany notes

ANS:
a. The gain is deferred in the period of the intercompany sale and is recognized in the period that the goods are sold to outside parties. When the sale to outside parties occurs in the same period as the intercompany sale, both profits are recognized.
b. The gain is not recognized in the period of the intercompany sale. It is deferred and recognized in a later period, when the land is resold to outside parties. In many cases, this will become a permanent deferral.
c. The gain is not recognized on the date of sale. It is deferred and recognized over the depreciable life of the asset on the buyer's books. It is allocated over future periods using the depreciation method used by the buyer. However, any remaining intercompany gain still deferred at the time of a sale of the asset to an outside party is recognized at the time of the sale.
d. The interest expense in any period equals the interest revenue recorded. Thus, there is no effect on consolidated income. During each period, however, the interest expense and revenue are eliminated from the consolidated statements.

DIF: M OBJ: 1, 2, 3, 5
[[Insert FIGURE 4-1 from Excel spreadsheet]]
[[Insert ANSWER 4-1 from Excel spreadsheet]]
[[Insert FIGURE 4-2 from Excel spreadsheet]]
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## Chapter 5 - Intercompany Transactions: Bonds and Leases

## MULTIPLE CHOICE

1. The usual impetus for transactions that create a long-term debtorcreditor relationship between members of a consolidated group is due to the:
a. subsidiary's ability to borrow larger amounts of capital at more favorable terms than would be available to the parent.
b. parent's ability to borrow larger amounts of capital at more favorable terms than would be available to the subsidiary.
c. parent's desire to decentralize asset management and credit control.
d. parent's desire to eliminate long-term debt.

ANS: B DIF: E OBJ: 1
2. The motivation of a parent company to purchase the outstanding bonds of a subsidiary could be to:
a. replace the existing debt with new debt at a lower interest rate.
b. reduce the parent company's acquisition price for the subsidiary.
c. increase the parent company's ownership percentage in the subsidiary.
d. create interest revenue to offset interest expense in future income statements.

ANS: A DIF: E OBJ: 1
3. Company $S$ is a $100 \%$-owned subsidiary of Company $P$. Company $S$ has outstanding 8\%, 10-year bonds sold to yield 7\%. On January 1 of the current year, Company $P$ purchased all of the Company $S$ outstanding bonds at a price that reflected the current $9 \%$ effective interest rate. How should this event be reflected in the current year's consolidated statements?
a. The bonds remain in the balance sheet and are accounted for at a $7 \%$ effective rate.
b. The bonds remain in the balance sheet and are accounted for at a 9\% effective rate.
c. Retirement of the bonds at an extraordinary gain as of the purchase date.
d. Retirement of the bonds at an extraordinary loss as of the purchase date.

ANS: D DIF: E OBJ: 2
4. Company S is a $100 \%$-owned subsidiary of Company P. Company $S$ has outstanding 6\%, 10-year bonds sold to yield $7 \%$. On January 1 of the current year, Company $P$ purchased all of the Company $S$ outstanding bonds at a price that reflected the current 9\% effective interest rate. How should this event be reflected in the current year's consolidated statements?
a. The bonds remain in the balance sheet and are accounted for at a $7 \%$ effective rate.
b. The bonds remain in the balance sheet and are accounted for at a 9\% effective rate.
c. Retirement of the bonds at an extraordinary gain as of the purchase date.
d. Retirement of the bonds at an extraordinary loss as of the purchase date.

ANS: D DIF: E OBJ: 2
5. Company $S$ is a $100 \%$-owned subsidiary of Company $P$. Company $S$ has outstanding 6\%, 10-year bonds sold to yield 7\%. On January 1 of the current year, Company $P$ purchased all of the Company $S$ outstanding bonds at a price that reflected the current 6\% effective interest rate. How should this event be reflected in the current year's consolidated statements?
a. The bonds remain in the balance sheet and are accounted for at a $7 \%$ effective rate.
b. The bonds remain in the balance sheet and are accounted for at a 9\% effective rate.
c. Retirement of the bonds at an extraordinary gain as of the purchase date.
d. Retirement of the bonds at an extraordinary loss as of the purchase date.

ANS: C DIF: E OBJ: 2
6. Intercompany debt which must be eliminated from consolidated financial statements may results from:
a. one member of a consolidated group selling its bonds directly to another member of the group.
b. one member of a consolidated group advancing funds to another member of the group so that the member may retire bonds it had issued to outside parties.
c. one member of a consolidated group purchasing bonds from outside parties as an investment that had been issued to outside parities by another member of the group.
d. all of the above.

ANS: D DIF: E OBJ: 2
7. Elimination procedures for intercompany bonds purchased from outside parties by another member of the consolidated group are:
a. not needed except in the period of acquisition if purchased at par.
b. not needed except in the period of acquisition if purchased at a premium or discount.
c. not needed except in the period of acquisition if only a portion of the outstanding bonds are purchased.
d. needed each period as long as there are intercompany bonds.

ANS: D DIF: E OBJ: 2
8. Assuming the correct bond eliminations entry(s) are made for
intercompany bonds, intercompany bond interest expense will appear on:
a. the consolidated income statement.
b. the income statement of the bond issuer.
c. the income statement of the bond purchaser.
d. none of the above.

ANS: D DIF: E OBJ: 2
9. Assuming the correct bond eliminations entry(s) are made for
intercompany bonds, intercompany bond interest payable will appear on:
a. the consolidated balance sheet.
b. the balance sheet of the bond issuer.
c. the balance sheets of the bond issuer and the bond purchaser.
d. none of the above.

ANS: D DIF: E OBJ: 2
10. Company $S$ is a $100 \%$-owned subsidiary of Company P. On January 1, 20X9, Company $S$ has $\$ 200,000$ of $8 \%$ face rate bonds outstanding, which were issued at face value. The bonds had 5 years to maturity on January 1, 20x9. Premiums or discounts would be amortized on a straight-line basis. On that date, Company $P$ purchased the bonds for $\$ 198,000$. The amount on the consolidated balance sheet relative to the debt is:
a. bonds payable \$200,000.
b. bonds payable \$200,000, discount \$2,000.
c. bonds payable \$200,000, discount \$1,600.
d. The bonds do not appear on the balance sheet.

ANS: D DIF: M OBJ: 2
11. Company S is a $100 \%$-owned subsidiary of Company P. On January 1, 20X9, Company $S$ has $\$ 100,000$ of $8 \%$ face rate bonds outstanding. The bonds had 5 years to maturity on January 1, 20X9, and had an amortized discount of $\$ 5,000$. On that date, Company $P$ purchased the bonds for $\$ 99,000$. The net adjustment needed to consolidate retained earnings on December 31, 20X9 is
a. $\$(4,000)$
b. $\$(3,200)$
c. $\$(800)$
d. \$0

ANS: A DIF: M OBJ: 2
12. Sun Company is a 100\%-owned subsidiary of Peter Company. On January 1, 20X1, Sun Company has $\$ 500,000$ of $8 \%$ face rate bonds outstanding, with an unamortized discount of $\$ 5,000$ which is being amortized over a 5 year remaining life to maturity. On that date, Peter Company purchased the bonds for $\$ 497,000$. The adjustment to the consolidated income of the two companies needed in the consolidation process for 20X2 (the following
year) is $\qquad$ .
a. \$2,800
b. \$(400)
c. \$400
d. $\$(2,800)$

ANS: C DIF: M OBJ: 2
13. Company $S$ is a $100 \%$-owned subsidiary of Company $P$. Company $P$ purchased, at a premium, Company $S$ bonds that are outstanding and have a remaining discount. Consolidation theory takes the position that:
a. interest expense should be adjusted to reflect the market value of the bonds on the date of Company P's purchase.
b. the debt has been retired at an extraordinary loss.
c. the debt is outstanding, but should be shown at face value.
d. the gain or loss on retirement should be allocated over the remaining life of the bonds.

ANS: B DIF: E OBJ: 2
14. Company $S$ is a $100 \%$-owned subsidiary of Company $P$. Company $P$ purchased all the outstanding bonds of Company $S$ at a discount. The bonds had a remaining issuance premium at the time of Company P's purchase. The bonds have 5 years to maturity. At the end of 5 years, retained earnings:
a. is greater as a result of the purchase.
b. is less as a result of the purchase.
c. is not affected by the purchase.
d. cannot be determined from the information provided.

ANS: C DIF: E OBJ: 2
15. Company P owns $80 \%$ of Company S. On January 1, $20 X 9$ Company $S$ has outstanding $6 \%$ bonds with a face value of $\$ 200,000$ and an unamortized discount of $\$ 3,000$, which is being amortized on a straight-line basis over a remaining term of 10 years. On January 1, 20X9, Company P purchased all the bonds for $\$ 205,000$. The premium also is amortized on a straight-line basis. The net impact of the purchase on the noncontrolling interest as of December 31, 20X9, is $\qquad$ —.
a. $\$(8,000)$
b. $\$(1,600)$
c. $\$(1,440)$
d. $\$(1,200)$

ANS: C DIF: M OBJ: 2
16. The purchase of outstanding subsidiary bonds by the parent company has the same impact on consolidated statements as:
a. the subsidiary retiring its own debt with the proceeds of new debt issued to outside parties.
b. the subsidiary retiring the debt with the proceeds of a loan from the parent.
c. the subsidiary retiring the debt with the proceeds of a new stock issue.
d. allowing the bonds to continue to be held by outside interests.

ANS: B DIF: E OBJ: 2
17. A subsidiary has outstanding $\$ 100,000$ of $8 \%$ bonds that were issued at face value. The parent purchased all the bonds for $\$ 96,000$ with 5 years remaining to maturity. How will the parent's use of the effective interest amortization rather than straight-line amortization of the discount affect the consolidated statements?
a. No impact.
b. Will result in a different gain on retirement
c. Will result in more interest expense in the first year after the intercompany purchase.
d. Will result in less interest expense in the first year after the intercompany purchase.

ANS: A DIF: E OBJ: 2
18. Powell Company owns an $80 \%$ interest in Sauter, Inc. On January 1, 20X1, Sauter issued $\$ 400,000$ of 10 -year, $12 \%$ bonds at a premium of $\$ 25,000$. On December 31, 20X5, 5 years after original issuance, Powell purchased all of the outstanding bonds for $\$ 390,000$. Both firms use the straight-line method of amortization.

What is the extraordinary gain on retirement on the 20X5 consolidated income statement?
a. \$12,500
b. \$22,500
c. \$10,000
d. \$35,000

ANS: B DIF: D OBJ: 2
19. Powell Company owns an $80 \%$ interest in Sauter, Inc. On January 1, 20X1, Sauter issued \$400,000 of 10 -year, $12 \%$ bonds at a premium of $\$ 25,000$. On December 31, 20X5, 5 years after original issuance, Powell purchased all of the outstanding bonds for $\$ 390,000$. Both firms use the straight-line method of amortization.

Bond interest expense included in the $20 \times 5$ subsidiary income distribution schedule is $\qquad$ _.
a. \$48,000
b. $\$ 45,500$
c. $\$ 47,500$
d. \$0

ANS: D DIF: M OBJ: 2
20. Subsidiary Company issued $\$ 200,000$ of $8 \%, 5$-year bonds on January 1, 20X6. The discount on issuance was $\$ 12,000$. Bond interest is paid annually on December 31. On December 31, 20X8, Parent Company purchased one-half of the outstanding bonds for $\$ 96,000$. Both companies use the straight-line method of amortization. How much interest expense will appear on the December 31, 20X8, consolidated income statement?
a. \$18,400
b. \$16,000
c. $\$ 9,200$
d. \$8,000

ANS: A DIF: D OBJ: 2
21. Subsidiary Company issued $\$ 200,000$ of $8 \%, 5$-year bonds on January 1, 20X6. The discount on issuance was $\$ 12,000$. Bond interest is paid annually on December 31. On December 31, 20X8, Parent Company purchased one-half of the outstanding bonds for $\$ 96,000$. Both companies use the straight-line method of amortization. How much interest expense will appear on the December 31, 20X9, consolidated income statement?
a. \$18,400
b. \$16,000
c. $\$ 9,200$
d. \$8,000

ANS: C DIF: D OBJ: 2
22. The consolidated income statement in the year one member of a consolidated group purchases bonds from outside parties includes:
a. an extraordinary gain if purchased above book value.
b. an extraordinary gain if purchased below book value.
c. loss if purchased below book value.
d. gain if purchased above book value.

ANS: B DIF: E OBJ: 2
23. The consolidated income statement in the year one member of a consolidated group purchases bonds from outside parties includes a(n): a. extraordinary loss if purchased above book value.
b. extraordinary loss if purchased below book value.
c. loss if purchased above book value.
d. loss if purchased above book value.

ANS: A DIF: E OBJ: 2
24. On an income distribution schedule, any gain or loss resulting from intercompany bonds is absorbed by:
a. the issuer of the bonds.
b. the purchaser of the bonds.
c. allocation between the issuer and the purchaser.
d. none of the above

ANS: A DIF: E OBJ: 2
25. In years subsequent to the year one member of a consolidated group purchases bonds from outside parties, Consolidated Income Statements:
a. recognize a prorated share of any gain or loss from intercompany bonds.
b. recognize a prorated share of any gain but would not show a share of a loss from intercompany bonds.
c. recognize a prorated share of any loss but would not show a share of a gain from intercompany bonds.
d. would not recognize any gain or loss from intercompany bonds.

ANS: D DIF: E OBJ: 2
26. When one member of a consolidated group purchases only part of the
outstanding bonds of another member of the group (for example, 80\% of the bonds),
a. all bonds, and all the interest expense and interest revenue applicable to the bonds should be eliminated.
b. $20 \%$ of the bonds, and $20 \%$ the interest expense and interest revenue applicable to the bonds should be eliminated.
c. $80 \%$ of the bonds, and $80 \%$ the interest expense and interest revenue applicable to the bonds should be eliminated.
d. none of the bonds, and none of the interest expense and interest revenue applicable to the bonds should be eliminated.

ANS: C DIF: E OBJ: 2
27. Leasing subsidiaries are formed to achieve centralized asset management through leasing to affiliated firms, and when they are consolidated with the parent, they are consolidated with the parent
a. only if the parent controls at least $20 \%$ of the leasing subsidiary.
b. only if the parent controls at least $50 \%$ of the leasing subsidiary.
c. only if the parent controls at least $90 \%$ of the leasing subsidiary.
d. regardless of the ownership percentage of the parent.

ANS: D DIF: E OBJ: 3
28. The effect of an operating lease on the income distribution schedule:
a. is non-existent.
b. affects only the lessee's income.
c. affects only the lessor's income.
d. affects the amount of income or distribution of income between the noncontrolling and controlling interests.

ANS: A DIF: E OBJ: 4
29. Lease terms can be considered to be "significantly affected:"
a. when the terms are the same for affiliated firms as for independent firms.
b. when the terms could not reasonably be expected to occur between independent firms.
c. only if the lease is an operating lease to the lessee and lessor.
d. only if the lease is a direct-financing lease to the lessee and lessor.

ANS: B DIF: E OBJ: 5
30. Which of the following statements is true?
a. No adjustments are made in the income distribution schedule as a result of Operating, Direct-Financing, and Sales-Type leases.
b. No adjustments are made in the income distribution schedule as a result of Operating and Direct-Financing leases.
c. No adjustments are made in the income distribution schedule as a result of Operating and Sales-Type leases.
d. No adjustments are made in the income distribution schedule as a result of Direct-Financing and Sales-Type leases.

ANS: B DIF: E OBJ: 4, 5, 6
31. Which of the following statements is true?
a. No elimination entries are required on a worksheet as a result of Operating, Direct-Financing, and Sales-Type leases.
b. No elimination entries are required on a worksheet as a result of Direct-Financing and Sales-Type leases.
c. No elimination entries are required on a worksheet as a result of Operating leases.
d. All the preceding are false.

ANS: D DIF: E OBJ: 4, 5, 6
32. When there is an unguaranteed residual value for the lessor in a Direct-

Financing Lease, this means:
a. the total payments to be received by the lessor will come from the lessee.
b. the total payments to be received by the lessee will come from the lessor.
c. a portion of the total payments to be received by the lessor will come from parties outside the consolidated group.
d. a portion of the total payments to be received by the lessee will come from parties outside the consolidated group.

ANS: C DIF: E OBJ: 7
33. Consolidation procedures for Sale-Type Leases:
a. allow for the recognition of the profit or loss from the lease by the lessee at the inception of the lease.
b. allow for the recognition of the profit or loss from the lease by the lessor at the inception of the lease.
c. defer the profit or loss and then amortize it over the lessee's period of usage.
d. defer the profit or loss and then amortize it over the lessor's period of usage.

ANS: C DIF: E OBJ: 6
34. Which of the following statements is true?
a. When one affiliate purchases another affiliate's bonds prior to the business combination, the bonds become an intercompany debt as of the purchase date and thus are viewed as being retired on the purchase date when consolidating if the acquisition is viewed as a purchase rather than a pooling of interest.
b. When one affiliate purchases another affiliate's bonds prior to the business combination, the bonds become an intercompany debt as of the purchase date and thus are viewed as being retired on the purchase date when consolidating if the acquisition is viewed as a pooling of interest rather than a purchase.
c. When one affiliate purchases another affiliate's bonds prior to the business combination, the bonds become an intercompany debt as of the purchase date and thus are viewed as being retired on the purchase date when consolidating if the acquisition is viewed as a pooling of interest or a purchase.
d. All of the above answers are false.

ANS: A DIF: E OBJ: 2
35. The parent company leased a machine to its subsidiary using a direct financing lease that included a bargain purchase option. As a result of the intercompany lease, the following items should be eliminated in the consolidation process:

| Machine | Debt | Interest | Depreciation <br> Expense |
| :---: | :---: | :---: | :---: |
| a. Yes | Yes | Yes | Yes |
| b. Yes | Yes | Yes | No |
| c. Yes | No | No | No |
| d. No | Yes | Yes | No |

ANS: D DIF: M OBJ: 5
36. Phil Company leased a machine to its $100 \%$-owned subsidiary, Scout Company. The direct financing lease required annual lease payments in advance of $\$ 2,319$ for 5 years. The present value of the minimum lease payments at $8 \%$ interest is $\$ 10,000$. The adjustment needed to arrive at consolidated net income for the first year after the lease is
a. \$0
b. \$800
c. $\$ 2,319$
d. \$10,000

ANS: A DIF: E OBJ: 5
37. Phil Company leased a machine to its 100\%-owned subsidiary, Scout Company. The direct financing lease required annual lease payments in advance of $\$ 2,319$ for 5 years. The present value of the minimum lease payments at $8 \%$ interest is $\$ 10,000$. The adjustment of assets and liabilities needed to prepare a consolidated balance sheet is to eliminate the:
a. asset leased.
b. asset leased and the obligation under the capital lease.
c. obligation under the capital lease and the present value of the minimum lease payments.
d. obligation under the capital lease.

ANS: C DIF: E OBJ: 5
38. Park owns an $80 \%$ interest in the common stock of Stable Company. Park leased a machine to Stable under a 5-year, direct financing lease with a bargain purchase option. The lease term began January 1, 20X4. The impact of the lease on the Noncontrolling share of income for 20X4:
a. is an increase.
b. is a decrease.
c. is none.
d. cannot be determined from the information given.

ANS: C DIF: E OBJ: 5
39. Lion Company leased equipment to its wholly owned subsidiary, Tiger, Inc., on July 1, 20X8. The lease is for a 10 -year period (the useful life of the asset), expiring June 30, 20x8. The first of 10 equal annual payments of $\$ 600,000$ was made on July 1, $20 \times 8$ and established a list selling price of $\$ 3,900,000$ on the equipment. Assume that on July 1, 20X8, the present value of the rent payments over the lease term discounted at $12 \%$ was $\$ 3,797,000$. The book value of the asset is $\$ 3,100,000$.

What is the profit on the sale that Lion should recognize on the consolidated financial statements for the years ended December 31, 20X8 and 20X9?
a. \$800,000 and \$0
b. \$697, 000 and \$80,000
c. $\$ 80,000$ and $\$ 80,000$
d. $\$ 34,850$ and $\$ 69,700$

ANS: D DIF: D OBJ: 6

## PROBLEM

1. The Planes Company owns $100 \%$ of the outstanding common stock of the Sands Company. Sands issued \$100,000 of face value, $9 \%, 10-y e a r$ bonds on January 1, 20X3, for $\$ 96,000$. The discount is being amortized on a straight-line basis. On January 1, 20X8, Planes purchased all the bonds as an investment for \$95,000.

## Required:

Be specific in answering the following questions and include numerical explanations.
a. How will this bond issue be recorded and accounted for in 20X8 on the separate books of Planes and Sands?
b. How will this bond issue be accounted for on the 20x8 consolidated statements?
c. How will this bond issue be recorded and accounted for in 20X9 on the separate books of Planes and Sands?
d. How will this bond issue be accounted for on the 20X9 consolidated statements?

ANS :
a. Planes will show the bonds as an investment and will amortize the purchase discount at the rate of $\$ 1,000$ per year. Planes will record interest income of $\$ 10,000$ ( $\$ 9,000$ cash $+\$ 1,000$ discount amortization). Sands will continue to treat the bonds as outstanding and will record interest expense of $\$ 9,400$ (\$9,000 cash + \$400 discount amortization).
b. The bonds are considered as retired on January 1, 20X8, at an extraordinary gain of $\$ 3,000$ ( $\$ 98,000$ book value less $\$ 95,000$ price). No interest expense or revenue should appear in the consolidated statements.
c. In 20X9, Planes will continue to show the bonds as an investment and will record \$10,000 interest revenue. Sands will continue to treat the bonds as outstanding and will record \$9,400 interest expense.
d. The consolidated statements will not include the bonds as an investment or as a liability. No interest expense or revenue will be applicable to these bonds.

DIF: E OBJ: 2
2. Smart Corporation is a $90 \%$-owned subsidiary of Phan Inc. On January 2, 20X6, Smart agreed to lease $\$ 400,000$ of construction equipment from Phan for $\$ 3,000$ a month on an operating lease. The equipment has a $10-y e a r$ life and is being depreciated using the straight-line method.

Required:
Prepare the eliminations and adjustments required by the intercompany lease on the Figure 5-1 partial worksheet for December 31, 20X8. Key and explain all eliminations and adjustments.

ANS:
For the worksheet solution, please refer to Answer 5-1.
Eliminations and Adjustments:
(OL1a) Eliminate intercompany rent expense/revenue of $\$ 3,000$ per month.
(OL1b) Eliminate one month's accrued rent receivable and payable.
(OL2) Reclassify asset under the intercompany operating lease and related accumulated depreciation.

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DIF: E OBJ: 4
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3. Tempo Industries is an $80 \%$-owned subsidiary of Dalie Inc. On January 1, 20X8, Dalie leased an asset to Tempo and the following journal entries were made:

Tempo

| Assets Under Capital Lease | \$21, 561 |  |
| :---: | :---: | :---: |
| Cash. |  | \$ 5,000 |
| Obligations Under Capital Lease |  | 16,561 |
| Dalie |  |  |
| Minimum Lease Payments Receivable. | \$20, 000 |  |
| Cash. | 5,000 |  |
| Unearned Interest Income |  | \$ 3,439 |
| Asset (cost of asset leased) |  | 18, 000 |
| Sales Profit on Leases. |  | 3,561 |

The terms of the lease agreement require Tempo to make five payments of $\$ 5,000$ each at the beginning of each year. The implicit interest rate used by both Dalie and Tempo is 8\%.

Required:
Prepare the eliminations and adjustments required by the intercompany lease on the Figure 5-2 partial worksheet of December 31, 20X8. Key and explain all eliminations and adjustments.

ANS:
For the worksheet solution, please refer to Answer 5-2.
Eliminations and Adjustments:
(CL1) Eliminate intercompany interest expense/revenue.
(CL2) Eliminate intercompany debt and unearned income; eliminate the asset under capital lease and record the owned asset.
(CL3) Reclassify depreciation.
(CL4) Reduce cost of asset for gain on sales-type lease.
(CL5) Reduce depreciation $3,561 \div 5=712$ per year, to recognize one year's profit.

DIF: E OBJ: 5
4. On January 1, 20X8, Pope Company acquired $100 \%$ of the common stock of Siegel Company for $\$ 300,000$. On this date Siegel had total owners' equity of \$250,000.

Any excess of cost over book value is attributable to goodwill.
Also on July 1, 20X8, Siegel Company sold to outside investors \$300,000 par value of 10 -year, $10 \%$ bonds. The price received was equal to par. The bonds pay interest semi-annually on July 1 and January 1.

During 20X8 and 20X9, Pope has appropriately accounted for its investment in Siegel using the simple equity method.

During early 20x9, market interest rates on bonds similar to those issued by Siegel decreased to $8 \%$. As a result, the market value of the bonds increased. On July 1, 20X9, Pope purchased $\$ 100,000$ par value of Siegel's bonds, paying \$163,000. Pope still holds the bonds on December 31, 20X9 and has amortized the premium, using the straight-line method.

Required:
Complete the Figure 5-3 worksheet for consolidated financial statements for the year ended December 31, 20X9. Round all computations to the nearest dollar.

ANS:
For the worksheet solution, please refer to Answer 5-3.
Eliminations and Adjustments:
(CY) Eliminate the current-year entries made in the investment account and in the Siegel income account.
(EL) Eliminate the Siegel Company equity balances at the beginning of the year against the investment account.
(D) Distribute the $\$ 50,000$ excess of cost over book value to goodwill.
(B1) Eliminate $\$ 7,500$ of intercompany interest receivable and payable.
(B2) Eliminate all of the intercompany interest income and onehalf of the interest expense for the last one-half of the year. Eliminate the balance in investment in bonds against one-half of the bonds payable. The resulting loss of $\$ 13,000$ is the same as the loss on July 1, 20X9 (\$163,000 purchase price of bonds less $\$ 150,000$ carrying value).

Consolidated Net Income:
To Noncontrolling Interest: 0
To Controlling Interest: $106,778+(100 \% \times(80,000-13,000+7,500$

- 6,778)) - 2,500 = \$174,500

DIF: M OBJ: 2
5. On January 1, 20X8, Pope Company acquired $100 \%$ of the common stock of Siegel Company for $\$ 300,000$. On this date Siegel had total owners' equity of \$250,000.

Any excess of cost over book value is attributable to goodwill.
Also on July 1, 20X8, Siegel Company sold to outside investors $\$ 200,000$ par value of 10 -year, $10 \%$ bonds. The price received was equal to par. The bonds pay interest semi-annually on July 1 and January 1.

During 20X8 and 20X9, Pope has appropriately accounted for its investment in Siegel using the simple equity method.

During early 20X9, market interest rates on bonds similar to those issued by Siegel decreased to 8\%. As a result, the market value of the bonds increased. On July 1, 20X9, Pope purchased $\$ 100,000$ par value of Siegel's bonds, paying $\$ 112,695$. Pope still holds the bonds on December 31, 20X9 and has amortized the premium, using the effective-interest method.

Required:
Complete the Figure 5-4 worksheet for consolidated financial statements for the year ended December 31, 20X9. Round all computations to the nearest dollar.

ANS:
For the worksheet solution, please refer to Answer 5-4.
Eliminations and Adjustments:
(CY) Eliminate the current-year entries made in the investment account and in the Siegel income account.
(EL) Eliminate the Siegel Company equity balances at the beginning of the year against the investment account.
(D) Distribute the $\$ 50,000$ excess of cost over book value to goodwill.
(B1) Eliminate $\$ 5,000$ of intercompany interest receivable and payable.
(B2) Eliminate all of the intercompany interest income and onehalf of the interest expense for the last one-half of the year. Eliminate the balance in investment in bonds against one-half of the bonds payable. The resulting loss of $\$ 12,695$ is the same as the loss on July 1, 20X9 (\$112,695 purchase price of bonds less $\$ 100,000$ carrying value).

Consolidated Net Income:
To Noncontrolling Interest: 0
To Controlling Interest: $104,508+(100 \% \times(80,000-12,695+$ $5,000-4,508))=\$ 172,305$

DIF: M OBJ: 2
6. On January 1, 20X8, Pope Company acquired $100 \%$ of the common stock of Siegel Company for $\$ 300,000$. On this date Siegel had total owners' equity of \$250,000.

Any excess of cost over book value is attributable to goodwill.
Also on January 1, 20X8, Siegel Company sold to outside investors $\$ 300,000$ par value of 10 -year, $10 \%$ bonds. The price received was equal to par. The bonds pay interest semi-annually on July 1 and January 1.

During 20X8 and 20X9, Pope has appropriately accounted for its Investment in Siegel using the simple equity method.

During 20X8, market interest rates on bonds similar to those issued by Siegel decreased to $8 \%$. As a result, the market value of the bonds increased. On December 31, 20X8, Pope purchased $\$ 150,000$ par value of Siegel's bonds, paying \$163,000. Pope still holds the bonds on December 31, 20X9 and has amortized the premium, using the straight-line method.

Required:
Complete the Figure 5-5 worksheet for consolidated financial statements for the year ended December 31, 20X9. Round all computations to the nearest dollar.

ANS:
For the worksheet solution, please refer to Answer 5-5.
Eliminations and Adjustments:
(CY) Eliminate the current-year entries made in the investment account and in the Siegel income account.
(EL) Eliminate the Siegel Company equity balances at the beginning of the year against the investment account.
(D) Distribute the $\$ 50,000$ excess of cost over book value to goodwill.
(B1) Eliminate \$5,000 of intercompany interest receivable and payable.
(B2) Eliminate all of the intercompany interest income and onehalf of the interest expense. Eliminate the balance in investment in bonds against one-half of the bonds payable.

The resulting loss of $\$ 13,000$ is the same as the loss on July 1, 20X9 (\$113,000 purchase price of bonds less $\$ 100,000$ carrying value). Since the loss occurred in 20X8, it is debited to retained earnings.

Consolidated Net Income:
To Noncontrolling Interest: 0
To Controlling Interest: $113,556+(100 \% \times(80,000+15,000-$ 13,556) $=\$ 195,000$

DIF: M OBJ: 2
7. On January 1, 20X8, Parent Company purchased $90 \%$ of the common stock of Subsidiary Company for $\$ 350,000$. On this date, Subsidiary had common stock, other paid in capital, and retained earnings of $\$ 20,000, \$$ 130,000, and \$200,000 respectively.

Any excess of cost over book value is due to goodwill.
In both 20X8 and 20X9, Parent has accounted for the Investment in Subsidiary using the cost method.

On January 1, 20X8, Subsidiary sold \$100,000 par value of 6\%, ten-year bonds for $\$ 97,000$. The bonds pay interest semi-annually on January 1 and July 1 of each year.

On January 1, 20X9, Parent repurchased all of Subsidiary's bonds for $\$ 96,400$. The bonds are still held on December 31, 20X9.

Both companies have correctly recorded all entries relative to bonds and interest, using straight-line amortization for premium or discount.

Required:
Complete the Figure 5-6 worksheet for consolidated financial statements for the year ended of December 31, 20X9. Round all computations to the nearest dollar.

ANS:
For the worksheet solution, please refer to Answer 5-6.
Eliminations and Adjustments:
(CV) Convert to simple equity method as of January 1, 20X9 (90\% of $\$ 50,000$ increase in retained earnings from January 1, 20X8 to January 1, 20X9).
(CY) Eliminate the current-year dividend income against dividends declared by Subsidiary.
(EL) Eliminate $90 \%$ of the Subsidiary Company equity balances at the beginning of the year against the investment account.
(D) Distribute the $\$ 35,000$ excess of cost over book value to goodwill.
(B1) Eliminate $\$ 3,000$ of intercompany interest receivable and payable.
(B2) Eliminate all of the intercompany interest income and all of the interest expense year. Eliminate the balances in investment in bonds, bonds payable, and discount on bonds payable. The resulting gain of $\$ 900$ is the same as the gain on January 1, $20 \times 8$ ( $\$ 97,300$ carrying value of bonds less \$96,400 purchase price).

Consolidated Net Income:

To Noncontrolling Interest: . $1 \times(69,900+900+6,300-6,400)=\$ 7,070$
To Controlling Interest: $123,200+(.9 \times(69,900+900+6,300-$ $6,400)$ ) $=\$ 186,830$

DIF: M OBJ: 2
8. On January 1, 20X8, Parent Company purchased $90 \%$ of the common stock of Subsidiary Company for $\$ 350,000$. On this date, Subsidiary had common stock, other paid in capital, and retained earnings of $\$ 20,000, \$$ 130,000, and \$200,000, respectively.

Any excess of cost over book value is due to goodwill.
In both 20X8 and 20X9, Parent has accounted for the Investment in Subsidiary using the simple equity method.

On January 1, 20X8, Subsidiary sold \$100,000 par value of 6\%, ten-year bonds for $\$ 97,000$. The bonds pay interest semi-annually on January 1 and July 1 of each year.

On January 1, 20X9, Parent repurchased all of Subsidiary's bonds for $\$ 96,400$. The bonds are still held on December 31, 20X9.

Both companies have correctly recorded all entries relative to bonds and interest, using straight-line amortization for premium or discount.

Required:
Complete the Figure 5-7 worksheet for consolidated financial statements for the year ended of December 31, 20X9. Round all computations to the nearest dollar.

ANS:
For the worksheet solution, please refer to Answer 5-7.
Eliminations and Adjustments:
(CY) Eliminate the current-year entries made in the investment account and in the subsidiary income account.
(EL) Eliminate $90 \%$ of the Subsidiary Company equity balances at the beginning of the year against the investment account.
(D) Distribute the $\$ 35,000$ excess of cost over book value to goodwill.
(B1) Eliminate \$3,000 of intercompany interest receivable and payable.
(B2) Eliminate all of the intercompany interest income and all of the interest expense for the year. Eliminate the balances in investment in bonds, bonds payable, and discount on bonds payable. The resulting gain of $\$ 900$ is the same as the gain on January 1, $20 \times 8$ ( $\$ 97,300$ carrying value of bonds less $\$ 96,400$ purchase price).

Consolidated Net Income:
To Noncontrolling Interest: . $1 \times(69,900+900+6,300-6,400)=\$ 7,070$
To Controlling Interest: $123,200+(.9 \times(69,900+900+6,300-$
$6,400)$ ) $=\$ 186,830$

DIF: M OBJ: 2
9. On January 1, 20X8, Parent Company purchased $90 \%$ of the common stock of Subsidiary Company for $\$ 355,000$. On this date, Subsidiary had common stock, other paid in capital, and retained earnings of $\$ 20,000$, \$130,000, and \$200,000 respectively.

Any excess of cost over book value is due to goodwill.
In both 20X8 and 20X9, Parent has accounted for the Investment in Subsidiary using the simple equity method.

On July 1, 20X8, Subsidiary sold \$100,000 par value of $9 \%$, ten-year bonds for $\$ 106,755$, which resulted in an effective interest rate of $8 \%$. The bonds pay interest semi-annually on January 1 and July 1 of each year. Subsidiary uses the effective-interest method of amortizing the premium.

An amortization table for $20 \times 8$ and 20X9 is presented below:

| Carrying | Carrying | Effective | Interest | Nominal | Premium |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Value on | Value | Interest | Expense | Interest | Write-off |
| 7-1-X8 | \$106,755 | 4\% | \$4,270 | \$4,500 | - \$230 |
|  | - 230 |  |  |  |  |
| 1-1-X9 | 106,525 | 4\% | 4,261 | 4,500 | - 239 |
|  | 239 |  |  |  |  |
| 7-1-X9 | 106,286 | 4\% | 4,251 | 4,500 | - 249 |
|  | 249 |  |  |  |  |
| 12-31-X9 | \$106,037 |  |  |  |  |

On July 1, 20X9, Parent repurchased all of Par's bonds for $\$ 94,153$, which resulted in an effective interest rate of $10 \%$. The bonds are still held at year end.

Both companies have correctly recorded all entries relative to bonds and interest.

Required:
Complete the Figure 5-8 worksheet for consolidated financial statements for the year ended of December 31, 20X9. Round all computations to the nearest dollar.

ANS:

For the worksheet solution, please refer to Answer 5-8.
Eliminations and Adjustments:
(CY) Eliminate the current-year entries made in the investment account and in the subsidiary income account.
(EL) Eliminate $90 \%$ of the Subsidiary Company equity balances at the beginning of the year against the investment account.
(D) Distribute the $\$ 40,000$ excess of cost over book value to goodwill.
(B1) Eliminate $\$ 4,500$ of intercompany interest receivable and payable.
(B2) Eliminate all of the intercompany interest income and all of the interest expense for the last one-half of the year. Eliminate the balances in investment in bonds, bonds payable, and premium on bonds payable. The resulting gain of $\$ 12,133$ is the same as the gain on July 1, 20X2 ( $\$ 106,286$ carrying value of bonds less $\$ 94,153$ purchase price).

Consolidated Net Income:
To Noncontrolling Interest: . $1 \times(70,000+12,133+4,251-4,708)=$ \$8,168

To Controlling Interest: $120,000+(.9 \times(70,000+12,133+4,251-$

$$
4,708))=\$ 193,508
$$

DIF: M OBJ: 2
10. On January 1, $20 \times 7$ Parent Company acquired $90 \%$ of the common stock of Subsidiary Company for $\$ 365,000$. On this date, Subsidiary had common stock, other paid in capital, and retained earnings of $\$ 50,000$, \$100,000, and \$200,000 respectively.

In both 20X7 and 20X8, Parent has accounted for the Investment in Subsidiary using the simple equity method.

On January 1, 20X8, Parent purchased equipment for $\$ 204,120$ and immediately leased the equipment to Subsidiary on a 4 -year lease. The minimum lease payments of $\$ 60,000$ are to be made annually on January 1 , beginning immediately, for a total of 4 payments. The implicit interest rate is $12 \%$. The lease provides for an automatic transfer of title at the end of 4 years. The estimated useful life of the equipment is 6 years. The lease has been capitalized by both companies.

A lease amortization schedule, applicable to either company, is presented below:

| Carrying <br> Value on | Carrying Value | Interest Rate | Interest | Payment | Principal Reduction |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1-1-X8 | \$204,120 |  |  |  |  |
|  | - 60,000 |  |  |  |  |
| $1-1-\mathrm{x} 8$ | 144,120 | 12\% | \$17,294 | \$60, 000 | \$42,706 |
|  | - 42,706 |  |  |  |  |
| 1-1-X9 | 101,414 | 12\% | 12,170 | 60,000 | 47,830 |
|  | - 47,830 |  |  |  |  |
| 1-1-Y0 | 53,584 | 12\% | 6,416* | 60,000 | 53,584 |
|  | - 53,584 |  |  |  |  |
| 1-1-Y1 | \$ 0 | *Adjus | for roun | ng error |  |

## Required:

Complete the Figure 5-9 worksheet for consolidated financial statements for the year ended December 31, 20x8. Round all computations to the nearest dollar.

ANS:
For the worksheet solution, please refer to Answer 5-9.
Eliminations and Adjustments:
(CY) Eliminate the current-year entry made in the investment account and in the subsidiary income account.
(EL) Eliminate the Subsidiary Company equity balances at the beginning of the year against the investment account.
(D) Distribute the $\$ 50,000$ excess to goodwill.
(CL1) Eliminate the intercompany interest income and expense on the lease obligation.
(CL2) Eliminate the intercompany receivable and payable on the leased asset. The receivable balance is \$161,414 (\$180,000 minimum lease payment receivable less unearned interest of $\$ 18,586$ )

The payable is also \$161,414 (\$144,120 lease obligation payable plus $\$ 17,294$ interest payable).
(CL3) Reclassify the leased equipment as ordinary Building and Equipment.
(CL4) Reclassify the accumulated depreciation on the leased equipment.

Consolidated Net Income:
To Noncontrolling Interest: \$60,000 x 10\% = \$6,000
To Controlling Interest: $\$ 80,000+(90 \% \times \$ 60,000)=\$ 134,000$

DIF: D OBJ: 5
11. On January 1, 20X7, Parent Company acquired $90 \%$ of the common stock of Subsidiary Company for $\$ 365,000$. On this date, Subsidiary had common stock, other paid in capital, and retained earnings of $\$ 50,000$, \$100, 000, and \$200,000 respectively.

In 20X7, 20X8, and 20X9, Parent has accounted for the Investment in Subsidiary using the simple equity method.

On January 1, 20X8, Parent purchased equipment for $\$ 204,120$ and immediately leased the equipment to Subsidiary on a 4-year lease. The minimum lease payments of $\$ 60,000$ are to be made annually on January 1, beginning immediately, for a total of 4 payments. The implicit interest rate is 12\%. The lease provides for an automatic transfer of title at the end of 4 years. The estimated useful life of the equipment is 6 years. The lease has been capitalized by both companies.

A lease amortization schedule, applicable to either company, is presented below:

| Carrying | Carrying | Interest |  |  | Principal |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Value on | Value | Rate | Interest | Payment | Reduction |
| 1-1-X8 | $\begin{array}{r} \$ 204,120 \\ -\quad 60,000 \end{array}$ |  |  |  |  |
| 1-1-X8 | 144,120 | 12\% | \$17, 294 | \$60, 000 | \$42,706 |
|  | - 42,706 |  |  |  |  |
| 1-1-X9 | 101,414 | 12\% | 12,170 | 60,000 | 47,830 |
|  | - 47,830 |  |  |  |  |
| 1-1-Y0 | 53,584 | 12\% | 6,416* | 60,000 | 53,584 |
|  | - 53,584 |  |  |  |  |
| 1-1-Y1 | \$ 0 | *Adjus | for round | ng error |  |

## Required:

Complete the Figure 5-10 worksheet for consolidated financial statements for the year ended December 31, 20X9. Round all computations to the nearest dollar.

ANS:

For the worksheet solution, please refer to Answer 5-10.
Eliminations and Adjustments:
(CY) Eliminate the current-year entry made in the investment account and in the subsidiary income account.
(EL) Eliminate the Subsidiary Company equity balances at the beginning of the year against the investment account.
(D) Distribute the \$50,000 excess to goodwill.
(CL1) Eliminate the intercompany interest income and expense on the lease obligation.
(CL2) Eliminate the intercompany receivable and payable on the leased asset. The receivable balance is \$113,584 (\$120,000 minimum lease payment receivable less unearned interest of \$6,416).

The payable is also $\$ 113,584$ (\$101,414 lease obligation payable plus \$12,170 interest payable).
(CL3) Reclassify the leased equipment as ordinary Building and Equipment.
(CL4) Reclassify the accumulated depreciation on the leased equipment.

Consolidated Net Income:
To Noncontrolling Interest: $\$ 70,000 \times 10 \%=\$ 7,000$
To Controlling Interest: \$100,000 + (90\% x \$70,000) = \$163,000

DIF: M OBJ: 5
12. On January 1, 20X7, Parent Company acquired $100 \%$ of the common stock of Subsidiary Company for $\$ 365,000$. On this date, Subsidiary had common stock, other paid in capital, and retained earnings of $\$ 50,000$, \$100, 000, and \$200,000 respectively.

In 20X7, 20X8, and 20X9, Parent has accounted for the Investment in Subsidiary using the simple equity method.

On January 1, 20X8, Parent purchased equipment for $\$ 174,120$ and immediately leased the equipment to Subsidiary on a 4-year lease. The transaction was legally structured as a sales-type lease with a present value for the minimum lease payments of $\$ 204,120$. Parent recorded the following entry:


The minimum lease payments of $\$ 60,000$ are to be made annually on January 1 , beginning immediately, for a total of 4 payments. The implicit interest rate is $12 \%$. The lease provides for an automatic transfer of title at the end of 4 years. The estimated useful life of the equipment is 6 years. The lease has been capitalized by both companies.

A lease amortization schedule, applicable to either company, is presented below:

| Carrying | Carrying | Interest |  |  | Principal |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Value on | Value | Rate | Interest | Payment | Reduction |
| 1-1-X8 | $\begin{array}{r} \$ 204,120 \\ -\quad 60,000 \\ \hline \end{array}$ |  |  |  |  |
| $1-1-\mathrm{X8}$ | 144,120 | 12\% | \$17, 294 | \$60, 000 | \$42, 706 |
|  | $\begin{array}{r}142,706 \\ \hline 101,414\end{array}$ |  |  |  |  |
| 1-1-X9 | $\begin{array}{r} 101,414 \\ -\quad 47,830 \\ \hline \end{array}$ | 12\% | 12,170 | 60,000 | 47,830 |
| 1-1-Y0 | $\begin{array}{r} 53,584 \\ -\quad 53,584 \end{array}$ | 12\% | 6,416* | 60,000 | 53,584 |
| 1-1-Y1 | \$ 0 | *Adjust | for round | error. |  |

Required:
Complete the Figure 5-11 worksheet for consolidated financial statements for the year ended December 31, 20X8. Round all computations to the nearest dollar.

ANS:

For the worksheet solution, please refer to Answer 5-11.
Eliminations and Adjustments:
(CY) Eliminate the current-year entry made in the investment account and in the subsidiary income account.
(EL) Eliminate the Subsidiary Company equity balances at the beginning of the year against the investment account.
(CL1) Eliminate the intercompany interest income and expense on the lease obligation.
(CL2) Eliminate the intercompany receivable and payable on the leased asset. The receivable balance is \$161,414 (\$180,000 minimum lease payment receivable less unearned interest of $\$ 18,586$ ).

The payable is also \$161,414 (\$144,120 lease obligation payable plus $\$ 17,294$ interest payable).
(CL3) Reclassify the leased equipment as ordinary Building and Equipment.
(CL4) Reclassify the accumulated depreciation on the leased equipment.
(CL5) Eliminate the Sales Profit on Lease and adjust the leased asset back to cost.
(CL6) Adjust the related depreciation accounts for the leased asset. The credit to depreciation expense treats part of the profit as realized to the Parent through use by Subsidiary.

Consolidated Net Income:
To Noncontrolling Interest: 0
To Controlling Interest: 80,000 - 30,000 + 5,000 + (100\% x 60,000)
= \$115,000

DIF: D OBJ: 5, 6
13. On January 1, 20X7, Parent Company purchased $100 \%$ of the common stock of Subsidiary Company for $\$ 390,000$. On this date, Subsidiary had common stock, other paid in capital, and retained earnings of $\$ 50,000$, \$100,000, and \$200,000 respectively.

Any excess of cost over book value is due to goodwill.
In both 20X7, 20X8, and 20X9, Parent has accounted for the Investment in Subsidiary using the simple equity method.

On January 1, 20X8, Parent purchased equipment for $\$ 204,120$ and immediately leased the equipment to Subsidiary on a 4-year lease. The minimum lease payments of $\$ 60,000$ are to be made annually on January 1, beginning immediately, for a total of 4 payments. The implicit interest rate is 12\%. The lease provides for an automatic transfer of title at the end of 4 years. The estimated useful life of the equipment is 6 years. The lease has been capitalized by both companies.

A lease amortization schedule, applicable to either company, is presented below:

| Carrying <br> Value on | Carrying Value | Interest Rate |  |  | Principal <br> Reduction |
| :---: | :---: | :---: | :---: | :---: | :---: |
| $\frac{\text { Value on }}{1-1-\times 8}$ | Value | Rate | Interest | $\underline{\text { Payment }}$ | Reduction |
| 1-1-X8 | $\begin{array}{r} \hline \$ 204,120 \\ -\quad 60,000 \\ \hline \end{array}$ |  |  |  |  |
| 1-1-X8 | 144,120 | 12\% | \$17, 294 | \$60, 000 | \$42,706 |
|  | - 42,706 |  |  |  |  |
| 1-1-X9 | 101,414 | 12\% | 12,170 | 60,000 | 47,830 |
|  | - 47,830 |  |  |  |  |
| 1-1-Y0 | $\begin{array}{r} 53,584 \\ -\quad 53,584 \end{array}$ | 12\% | 6,416* | 60,000 | 53,584 |
| 1-1-Y1 | \$ 0 | *Adjus | for rou | ing erro |  |

On January 1, 20X9, Parent held merchandise acquired from Subsidiary for \$10,000. During 20X9, subsidiary sold merchandise to Parent for $\$ 50,000$, of which $\$ 15,000$ is held by Parent on December 31, 20X9. Subsidiary's usual gross profit on affiliated sales is 40\%.

Required:
Complete the Figure 5-12 worksheet for consolidated financial statements for the year ended December 31, 20X9. Round all computations to the nearest dollar.

ANS:

For the worksheet solution, please refer to Answer 5-12.
Eliminations and Adjustments:
(CY) Eliminate the current-year entry made in the investment account and in the subsidiary income account.
(EL) Eliminate the Subsidiary Company equity balances at the beginning of the year against the investment account.
(D) Distribute the $\$ 40,000$ excess of cost over book value to goodwill.
(CL1) Eliminate the intercompany interest income and expense on the lease obligation.
(CL2) Eliminate the intercompany receivable and payable on the leased asset. The receivable balance is \$113,584 (\$120,000 minimum lease payment receivable less unearned interest of \$6, 416).

The payable is also \$113,584 (\$101,414 lease obligation payable plus \$12,170 interest payable).
(CL3) Reclassify the leased equipment as ordinary Building and Equipment.
(CL4) Reclassify the accumulated depreciation on the leased equipment.
(BI) Eliminate the $\$ 4,000$ of gross profit in the beginning inventory.
(IS) Eliminate the entire intercompany sales of \$50,000.
(EI) Eliminate the $\$ 6,000$ of gross profit in the ending inventory.

Consolidated Net Income:
To Noncontrolling Interest: \$0
To Controlling Interest: $100,000+(100 \% \times(70,000+4,000-6,000))$ = \$168,000

DIF: D OBJ: 5
14. On January 1, 20X7, Porter Company purchased $80 \%$ of the common stock of Singer Company for $\$ 372,000$. On this date Singer had total owners' equity of \$440,000.

Any excess of cost over book value is due to goodwill.
During 20X7 and 20X8, Porter has appropriately accounted for its investment in Singer using the simple equity method.

On January 1, 20X8, Porter held merchandise acquired from Singer for \$30,000. During 20X8, Singer sold merchandise to Porter for $\$ 90,000$, of which \$20,000 is held by Porter on December 31, 20X2. Singer's usual gross profit on affiliated sales is 40\%.

On December 31, 20X8, Porter still owes Singer \$10,000 for merchandise acquired in December.

On December 31, 20X7, Porter sold \$100,000 par value of $10 \%$, 10 -year bonds for $\$ 102,000$. Porter uses the straight-line method of amortization for the premium. The bonds pay interest semiannually on June 30 and December 31.

On December 31, 20X8, Singer repurchased $\$ 50,000$ par value of the bonds, paying \$49,100. Straight-line amortization is used.

Required:
Complete the Figure 5-13 worksheet for consolidated financial statements for the year ended December 31, 20X8. Round all computations to the nearest dollar.

ANS:

For the worksheet solution, please refer to Answer 5-13.
Eliminations and Adjustments:
(CY) Eliminate the current-year entries made in the investment account and in the Singer income account.
(EL) Eliminate 80\% of the Singer Company equity balances at the beginning of the year against the investment account.
(D) Distribute the $\$ 20,000$ excess of cost over book value to goodwill.
(BI) Eliminate the $\$ 12,000$ of gross profit in the beginning inventory.
(IS) Eliminate the entire intercompany sales of $\$ 90,000$.
(EI) Eliminate the $\$ 8,000$ of gross profit in the ending inventory.
(IA) Eliminate the $\$ 10,000$ intercompany accounts receivable and payable.
(B) Eliminate one-half of Porter's bonds payable and premium against the investment in bonds account. The gain to Porter is \$1,800.

Consolidated Net Income:
To Noncontrolling Interest: $.2 \times(75,000+12,000-8,000)=\$ 15,800$
To Controlling Interest: $90,200+1,800+(.8 \times(75,000+12,000-$ $8,000)$ ) $=\$ 155,200$

DIF: D OBJ: 2
15. On January 1, 20X7, Porter Company purchased $80 \%$ of the common stock of Singer Company for $\$ 372,000$. On this date Singer had total owners' equity of \$440,000.

Any excess of cost over book value is due to goodwill.
During 20X7, 20X8, and 20X9, Porter has appropriately accounted for its investment in Singer using the simple equity method.

On January 1, 20X9, Porter held merchandise acquired from Singer for $\$ 40,000$. During 20X9, Singer sold merchandise to Porter for $\$ 120,000$, of which \$10,000 is held by Porter on December 31, 20X9. Singer's usual gross profit on affiliated sales is $40 \%$.

On December 31, 20X9, Porter still owes Singer \$5,000 for merchandise acquired in December.

On December 31, 20X7, Porter sold \$100,000 par value of $10 \%$, 10 -year bonds for $\$ 102,000$. Porter uses the straight-line method of amortization for the premium. The bonds pay interest semi-annually on June 30 and December 31.

On December 31, 20X8, Singer repurchased $\$ 50,000$ par value of the bonds, paying $\$ 49,100$. Singer uses the straight-line method of amortization for the discount. The bonds are still held on December 31, 20X9.

Required:
Complete the Figure 5-14 worksheet for consolidated financial statements for the year ended December 31, 20X9. Round all computations to the nearest dollar.

ANS:

For the worksheet solution, please refer to Answer 5-14.
Eliminations and Adjustments:
(CY) Eliminate the current-year entries made in the investment account and in the Singer income account.
(EL) Eliminate $80 \%$ of the Singer Company equity balances at the beginning of the year against the investment account.
(D) Distribute the $\$ 20,000$ excess of cost over book value to goodwill.
(BI) Eliminate the $\$ 16,000$ of gross profit in the beginning inventory.
(IS) Eliminate the entire intercompany sales of \$120,000.
(EI) Eliminate the $\$ 4,000$ of gross profit in the ending inventory.
(IA) Eliminate the $\$ 5,000$ intercompany accounts receivable and payable.
(B) Eliminate the interest income and the investment in bonds. Eliminate one-half of the bonds payable, premium on bonds, and interest expense. The gain to Porter of $\$ 1,800$ is debited to retained earnings since it occurred in 20X8.

Consolidated Net Income:
To Noncontrolling Interest: . $2 \times(100,000+16,000-4,000)=\$ 22,400$
To Controlling Interest: 110,000 + 4,900 - 5,100 + (. 8 x (100,000 + $16,000-4,000)=\$ 199,400$

DIF: D OBJ: 2
16. On January 1, 20X7, Porter Company purchased $80 \%$ of the common stock of Singer Company for $\$ 372,000$. On this date Singer had total owners' equity of \$440,000.

Any excess of cost over book value is due to goodwill.
During 20X7, 20X8, and 20X9, Porter has appropriately accounted for its investment in Singer using the simple equity method.

On January 1, 20X9, Porter held merchandise acquired from Singer for $\$ 40,000$. During 20X9, Singer sold merchandise to Porter for $\$ 120,000$, of which \$10,000 is held by Porter on December 31, 20X9. Singer's usual gross profit on affiliated sales is 40\%

On December 31, 20X9, Porter still owes Singer \$5,000 for merchandise acquired in December

On December 31, 20X7, Porter sold \$100,000 par value of $10 \%$, 10 -year bonds for $\$ 102,000$. Porter uses the straight-line method of amortization for the premium. The bonds pay interest semi-annually on June 30 and December 31.

On December 31, 20X8, Singer repurchased $\$ 50,000$ par value of the bonds, paying $\$ 49,100$. Singer uses the straight-line method of amortization for the discount. The bonds are still held on December 31, 20X9.

Required:
Complete the Figure 5-15 worksheet for consolidated financial statements for the year ended December 31, 20X9. Round all computations to the nearest dollar.

ANS:

For the worksheet solution, please refer to Answer 5-15.
Eliminations and Adjustments:
(CY) Eliminate the current-year entries made in the investment account and in the Singer income account.
(EL) Eliminate $80 \%$ of the Singer Company equity balances at the beginning of the year against the investment account.
(D) Distribute the $\$ 20,000$ excess of cost over book value to goodwill.
(BI) Eliminate the $\$ 16,000$ of gross profit in the beginning inventory.
(IS) Eliminate the entire intercompany sales of \$120,000.
(EI) Eliminate the $\$ 4,000$ of gross profit in the ending inventory.
(IA) Eliminate the $\$ 5,000$ intercompany accounts receivable and payable.
(B) Eliminate the interest income and the investment in bonds. Eliminate one-half of the bonds payable, premium on bonds, and interest expense. The gain to Porter of $\$ 1,800$ is debited to retained earnings since it occurred in 20X8.

Consolidated Net Income:
To Noncontrolling Interest: . $2 \times(100,000+16,000-4,000)=\$ 22,400$
To Controlling Interest: 110,000 + 4,900 - 5,100 + (. 8 X (100,000 + $16,000-4,000)=\$ 199,400$

DIF: D OBJ: 2
17. On January 1, 20X7, Parent Company purchased $80 \%$ of the common stock of Subsidiary Company for $\$ 402,000$. On this date Subsidiary had total owners' equity of \$440,000.

Any excess of cost over book value is due to goodwill.
During $20 \times 7$ and 20X8, Parent has appropriately accounted for its investment in Subsidiary using the simple equity method.

On January 1, 20X8, Parent held merchandise acquired from Subsidiary for \$30,000. During 20X8, Subsidiary sold merchandise to Parent for $\$ 100,000$, of which $\$ 50,000$ is held by Parent on December 31, $20 \times 8$. Subsidiary's usual gross profit on affiliated sales is $40 \%$.

On December 31, 20X8, Parent still owes Subsidiary \$10,000 for merchandise acquired in December.

On December 31, 20X7, Parent sold \$100,000 par value of 11\%, 10 -year bonds for $\$ 106,232$, which resulted in an effective interest rate of $10 \%$. The bonds pay interest semi-annually on June 30 and December 31. Parent uses the effective interest method of amortization for the premium.

An amortization table for $20 \times 2$ is presented below:

| Carrying | Carrying | Effective | Interest | Nominal | Premium |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Value on | Value | Interest | Expense | Interest |  | ce-off |
| 12-31-X7 | \$106,232 | 5\% | \$5,312 | \$5,500 | - | \$188 |
|  | - 188 |  |  |  |  |  |
| 6-30-X8 | 106,044 | 5\% | 5,302 | 5,500 | - | 198 |
|  | - 198 |  |  |  |  |  |
| 12-31-X8 | \$105,846 |  |  |  |  |  |

On December 31, 20X8, Subsidiary repurchased \$50,000 par value of the bonds, paying a price equal to par.

Required:
Complete the Figure 5-16 worksheet for consolidated financial statements for the year ended December 31, 20X8. Round all computations to the nearest dollar.

ANS:

For the worksheet solution, please refer to Answer 5-16.
Eliminations and Adjustments:
(CY) Eliminate the current-year entries made in the investment account and in the subsidiary income account
(EL) Eliminate $80 \%$ of the Subsidiary Company equity balances at the beginning of the year against the investment account.
(D) Distribute the $\$ 50,000$ excess of cost over book value to goodwill.
(BI) Eliminate the $\$ 12,000$ of gross profit in the beginning inventory.
(IS) Eliminate the entire intercompany sales of $\$ 100,000$.
(EI) Eliminate the $\$ 20,000$ of gross profit in the ending inventory.
(IA) Eliminate the $\$ 10,000$ intercompany accounts receivable and payable.
(B) Eliminate one-half of Parent's bonds payable and premium against the investment in bonds account. The gain to Parent is \$2,923.

Consolidated Net Income:
To Noncontrolling Interest: . $2 \times(75,000+12,000-20,000)=\$ 13,400$
To Controlling Interest: $89,386+2,923+(.8 \times(75,000+8,000$ - 16,000) ) $=\$ 145,909$

DIF: D OBJ: 2
18. On January 1, 20X7, Parent Company purchased $80 \%$ of the common stock of Subsidiary Company for $\$ 402,000$. On this date Subsidiary had total owners' equity of $\$ 440,000$. Any excess of cost over book value is due to goodwill.

During 20X7, 20X8, and 20X9, Parent has appropriately accounted for its investment in Subsidiary using the simple equity method.

On January 1, 20X9, Parent held merchandise acquired from Subsidiary for \$50,000. During 20X9, Subsidiary sold merchandise to Parent for $\$ 120,000$, of which Parent holds \$30,000 on December 31, $20 \times 9$. Subsidiary's gross profit on sales is 40\%. On December 31, 20x9, Parent still owes Subsidiary \$5,000 for merchandise.

On December 31, 20X9, Parent sold \$100,000 par value of $11 \%$, 10 -year bonds for $\$ 106,232$, which resulted in an effective interest rate of $10 \%$. The bonds pay interest semi-annually on June 30 and December 31. Parent uses the effective-interest method of amortization for the premium.

An amortization table for $20 \times 2$ and $20 \times 3$ is presented below:

| Carrying | Carrying | Effective | Interest | Nominal | Premium Write-off |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Value on | Value | Interest | Expense | Interest |  |  |
| 12-31-X7 | \$106,232 | 5\% | \$5,312 | \$5,500 | - | \$188 |
|  | - 188 |  |  |  |  |  |
| 6-30-X8 | 106,044 | 5\% | 5,302 | 5,500 | - | 198 |
|  | - 198 |  |  |  |  |  |
| 12-31-X8 | 105,846 | 5\% | 5,292 | 5,500 | - | 208 |
|  | 208 |  |  |  |  |  |
| 6-30-X9 | 105,638 | 5\% | 5,282 | 5,000 | - | 218 |
|  | - 218 |  |  |  |  |  |
| 12-31-X9 | \$105,420 |  |  |  |  |  |

On December 31, 20X8, Subsidiary repurchased $\$ 50,000$ par value of the bonds, paying a price equal to par. The bonds are still held on December 31, 20X9.

On December 31, 20X9, Parent sold equipment with a cost of $\$ 50,000$ and accumulated depreciation of $\$ 30,000$ to Subsidiary for $\$ 40,000$. Subsidiary will use the equipment beginning in 20X0.

Required:
Complete the Figure 5-17 worksheet for consolidated financial statements for the year ended December 31, 20X9. Round all computations to the nearest dollar.

ANS:

For the worksheet solution, please refer to Answer 5-17.
Eliminations and Adjustments:
(CY) Eliminate the current-year entries made in the investment account and in the subsidiary income account.
(EL) Eliminate $80 \%$ of the Subsidiary Company equity balances at the beginning of the year against the investment account.
(D) Distribute the $\$ 50,000$ excess of cost over book value to goodwill.
(BI) Eliminate the $\$ 20,000$ of gross profit in the beginning inventory.
(IS) Eliminate the entire intercompany sales of \$120,000.
(EI) Eliminate the $\$ 12,000$ of gross profit in the ending inventory.
(IA) Eliminate the \$5,000 intercompany accounts receivable and payable.
(B) Eliminate the interest income and the investment in bonds. Eliminate one-half of the bonds payable, premium on bonds, and interest expense. The gain to Parent of $\$ 2,923$ is debited to retained earnings since it occurred in $20 \times 2$.
(F) Eliminate the gain on sale of equipment, restore the old accumulated depreciation of \$30,000, and increase the equipment by $\$ 10,000$ to restore its original historical cost of \$50,000.

Consolidated Net Income:
To Noncontrolling Interest: . $2 \times(100,000+20,000-12,000+5,287-$ $5,500)=\$ 21,557$

To Controlling Interest: 130,000-20,000 + (. $8 \times(100,000+20,000-$ $12,000+5,287-5,500))=\$ 196,230$

DIF: D OBJ: 2
19. On January 1, 20X7, Parent Company purchased $80 \%$ of the common stock of Subsidiary Company for $\$ 402,000$. On this date Subsidiary had total owners' equity of \$440,000 including retained earnings of \$140,000.

Any excess of cost over book value is due to goodwill.
During 20X7, 20X8, and 20X9, Parent has appropriately accounted for its investment in Subsidiary using the cost method.

On January 1, 20X9, Parent held merchandise acquired from Subsidiary for \$50,000. During 20X9, Subsidiary sold merchandise to Parent for $\$ 120,000$, of which $\$ 30,000$ is held by Parent on December 31, 20x9. Subsidiary's usual gross profit on affiliated sales is 40\%. On December 31, 20X9, Parent still owes Subsidiary \$5,000 for merchandise acquired in December.

On December 31, 20X7, Parent sold \$100,000 par value of 10\%, 10-year bonds for $\$ 102,000$. Parent uses the straight-line method of amortization for the premium. The bonds pay interest semi-annually on June 30 and December 31.

On December 31, 20X8, Subsidiary repurchased \$50,000 par value of the bonds, paying $\$ 49,100$. Subsidiary uses the straight-line method of amortization for the discount. The bonds are still held on December 31, 20X9.

Required:
Complete the Figure 5-18 worksheet for consolidated financial statements for the year ended December 31, 20X9. Round all computations to the nearest dollar.

ANS:

For the worksheet solution, please refer to Answer 5-18.
Eliminations and Adjustments:
(CV) Convert to the simple equity method as of January 1, 20X9 (80\% of \$110,000 increase in retained earnings from January 1, 20X7 to January 1, 20X8).
(CY) Eliminate the current-year dividend income of Parent against dividends declared by Subsidiary.
(EL) Eliminate $80 \%$ of the Subsidiary Company equity balances at the beginning of the year against the investment account.
(D) Distribute the $\$ 50,000$ excess of cost over book value to goodwill.
(BI) Eliminate the $\$ 20,000$ of gross profit in the beginning inventory.
(IS) Eliminate the entire intercompany sales of \$120,000.
(EI) Eliminate the $\$ 12,000$ of gross profit in the ending inventory.
(IA) Eliminate the $\$ 5,000$ intercompany accounts receivable and payable.
(B) Eliminate the interest income and the investment in bonds. Eliminate one-half of the bonds payable, premium on bonds, and interest expense. The gain to Parent of $\$ 1,800$ is debited to retained earnings since it occurred in 20X8.

Consolidated Net Income
To Noncontrolling Interest: . $2 \times(100,000+20,000-12,000+4,900-$ $5,100)=\$ 21,560$

To Controlling Interest: $110,000+(.8 \times(100,000+20,000-12,000$ $+4,900-5,100))=\$ 196,240$

DIF: D OBJ: 2

## ESSAY

1. The Park Company owns 80\% of the outstanding common stock of the Sea Company. Park is about to lease a machine with a 5-year life to the Sea Company. The lease would begin January 1, 20X8.

Required:
Explain the adjustments that will be required in the consolidation process if each of the following occurs.
a. The lease is an operating lease.
b. The lease is a direct financing lease with a bargain purchase option.
c. The lease is a sales-type lease with a bargain purchase option.

ANS:
a. The intercompany rent expense and rent revenue are eliminated. The asset and related accumulation should be reclassified as normal productive assets.
b. The intercompany interest expense and revenue recorded on the lease obligation are eliminated. The liability obligation under capital lease is eliminated against the asset, present value of minimum lease payments. The asset--machine under capital lease should be reclassified as a normal productive asset.
c. In addition to the procedures outlined in part b, the sales profit is eliminated and the asset is reduced to its cost to the consolidated group. Depreciation expense is reduced to that applicable to the cost of the asset to the consolidated group.

DIF: E OBJ: 4, 5, 6
[[Insert FIGURE 5-1 from Excel spreadsheet]]
[[Insert ANSWER 5-1 from Excel spreadsheet]]
[[Insert FIGURE 5-2 from Excel spreadsheet]]
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[[Insert FIGURE 5-18 from Excel spreadsheet]]
[[Insert ANSWER 5-18 from Excel spreadsheet]]

## Chapter 6 - Cash Flow, EPS, Taxation, and Unconsolidated Investments

## MULTIPLE CHOICE

1. The cash purchase of a controlling interest in a firm on the statement
of cash flows is considered
a. an operating activity.
b. a financing activity.
c. an investing activity.
d. as all of the preceding.

ANS: C DIF: E OBJ: 1
2. The cash purchase of a controlling interest in a firm requires
disclosure on the statement of cash flows in the following as a(n)
a. financing activity only.
b. financing activity and in the schedule of noncash financing and investing activity.
c. investing activity only.
d. investing activity and in the schedule of noncash financing and investing activity.

ANS: D DIF: E OBJ: 1
3. In a noncash purchase of a controlling interest in a firm, disclosure is required on the statement of cash flows disclosure in the following as a(n)
a. financing activity only.
b. financing activity and in the schedule of noncash financing and investing activity.
c. investing activity only.
d. investing activity and in the schedule of noncash financing and investing activity.

ANS: D DIF: E OBJ: 1
4. Amortization of excesses in periods subsequent to the purchase would affect which sections of a cash flow statement?
a. operating activity
b. financing activity
c. investing activity
d. all of the above

ANS: A DIF: E OBJ: 1
5. The purchase of additional shares directly from a subsidiary by the parent results in disclosure in which section of a cash flow statement?
a. operating activities
b. financing activities
c. investing activities
d. not reflected on the statement of cash flows

ANS: D
DIF: E
OBJ: 1
6. The purchase of additional shares from the noncontrolling interest of a subsidiary by the parent results in disclosure in which section of a cash flow statement?
a. operating activities
b. financing activities
c. investing activities
d. not reflected on the statement of cash flows

ANS: B DIF: E OBJ: 1
7. Dividends paid by a subsidiary have the following affect on the consolidated cash flow
a. all dividends to the parent and to noncontrolling stockholders appear on the statement.
b. only dividends to the parent appear on the statement.
c. only dividends to NCI appear on the statement.
d. neither dividends to the parent or to noncontrolling stockholders appear on the statement

ANS: C
DIF: E
OBJ: 1
8. Which of the following statements is true?
a. The consolidated statement of cash flows treats the purchase of intercompany bonds from parties outside the consolidated group as a retirement of consolidated debt, and includes the cash outflow under cash flows from financing activities.
b. The consolidated statement of cash flows treats the purchase of intercompany bonds from parties outside the consolidated group as a retirement of consolidated debt, and includes the cash outflow under cash flows from investing activities.
c. The consolidated statement of cash flows treats the intercompany interest payments and amortization of premiums and/or discounts on intercompany bonds under operating activities.
d. The consolidated statement of cash flows treats the intercompany interest payments and amortization of premiums and/or discounts on intercompany bonds under investing activities.

ANS: A DIF: E OBJ: 1
9. Assume investments in the stock of firms not included in the consolidated group result in the nonconsolidated firm reporting income of $\$ 200,000$ and the firm paid dividends of $\$ 50,000$. If the consolidated firm paid $\$ 10,000$ more than book value for its $40 \%$ interest and regards the excess as attributable to goodwill, the operating activities, prepared using the indirect method, would reflect a net increase as a result of this investment of $\qquad$
a. \$80,000
b. \$70,000
c. \$59,000
d. \$20,000

ANS: D
DIF: M
OBJ: 1
10. Ponti Company purchased the net assets of the Sorri Company for $\$ 800,000$. The net assets of Sorri Company were recorded as follows on the acquisition date:

| Cash | \$ 50,000 |
| :---: | :---: |
| Inventory | 150, 000 |
| Land | 150, 000 |
| Building (net) | 400, 000 |
| Liabilities | (200, 000) |
| Net assets | \$ 550,000 |

The market values were as follows: Inventory, \$160,000; Land, \$170,000; Building, $\$ 450,000$. The excess purchase price is allocated to goodwill. What is the amount that will appear as cash applied to investing as a result of this purchase?
a. \$800, 000
b. \$720, 000
c. $\$ 750,000$
d. \$670,000

ANS: C
DIF: D
OBJ: 1
11. Company P acquired $80 \%$ of the outstanding common stock of the Company S by issuing common stock with a market value of $\$ 550,000$. The balance sheet of Company $S$ was as follows on the acquisition date:

| Assets |  | Liabilities and Equity |  |
| :---: | :---: | :---: | :---: |
| Cash | \$ 50, 000 | Liabilities | \$120, 000 |
| Inventory | 120, 000 | Common stock, \$10 par. | 100, 000 |
| Land | 100, 000 | Other paid-in capital. | 150, 000 |
| Building (net) | 350, 000 | Retained earnings | 250, 000 |
| Total. | \$620, 000 | Total. | \$620, 000 |

The market values were as follows: Inventory, \$130,000; Land, \$120,000; Building, \$400,000. What is the amount that will appear as cashinvesting on the consolidated statement of cash flows, as a result of this purchase?
a. \$600, 000
b. \$500, 000
c. $\$(50,000)$
d. \$0

ANS: C
DIF: M
OBJ: 1
12. Company $P$ acquired $75 \%$ of the outstanding common stock of the Company $S$ by issuing common stock with a market value of $\$ 650,000$ on January 1, 20X3. The balance sheet of Company $S$ was as follows on the acquisition date:

| Assets |  | Liabilities and Equity |  |
| :---: | :---: | :---: | :---: |
| Cash | \$100, 000 | Liabilities............ | \$100, 000 |
| Inventory | 90, 000 | Common stock, \$10 par | 100, 000 |
| Land. | 150,000 | Other paid-in capital | 200, 000 |
| Building (net) | 500,000 | Retained earnings. | 440, 000 |
| Total. | \$840, 000 | Total. | \$840, 000 |

The market values were as follows: Inventory, \$180,000; Land, \$150,000; Building, \$600,000. What is the amount that will appear as cashfinancing as a result of this purchase?
a. \$560,000
b. \$100, 000
c. $\$ 75,000$
d. \$0

ANS: D
DIF: D
OBJ: 1
13. Company $P$ acquired $60 \%$ of the outstanding common stock of Company $S$ by issuing common stock with a market value of $\$ 400,000$ on January 1, $20 \times 3$. The balance sheet of Company $S$ was as follows on the acquisition date:

| Assets |  | Liabilities and Equity |  |
| :---: | :---: | :---: | :---: |
| Cash | \$ 50,000 | Liabilities | \$ 80,000 |
| Inventory | 100, 000 | Common stock, \$10 par | 100, 000 |
| Land | 100, 000 | Other paid-in capital. | 120, 000 |
| Building (net) | 250,000 | Retained earnings | 200, 000 |
| Total. | \$500, 000 | Total | \$500,000 |

The market values were as follows: Inventory, \$130,000; Land, \$150,000; Building, \$400,000. The inventory was sold during 20x3, the building has a 10-year life, and any excess purchase price is attributed to goodwill. What adjustment is needed to consolidated net income to arrive at cash flow-operations for 20X4, under the indirect method, as a result of amortization of excesses from the purchase?
a. \$1,000
b. \$9,000
c. $\$ 14,800$
d. \$15, 000

ANS: B
DIF: D
OBJ: 1
14. Company P purchased an $80 \%$ interest in Company $S$ on January 1, 20x3, at a price in excess of book value, such that a patent arises in the consolidation process. As a result of amortizing the patent on the consolidated income statement, where would an adjustment be required in the following sections of the consolidated statement of cash flows?

| Operating | Investing | Financing | No Adjustment |
| :---: | :---: | :---: | :---: |
| a. Yes | No | No | No |
| b. No | Yes | No | No |
| c. No | No | Yes | No |
| d. No | No | No | Yes |

ANS: A DIF: E OBJ: 1
15. A parent company purchased all the outstanding bonds of its subsidiary. Will this cash transaction appear in the following sections of the consolidated statement of cash flows?

| Operating | Investing | Financing | No Adjustment |
| :---: | :---: | :---: | :---: |
| a. Yes | No | No | No |
| b. No | Yes | No | No |
| c. No | No | Yes | No |
| d. No | No | No | Yes |

ANS: C
DIF: E
OBJ: 1
16. A parent company owns $80 \%$ of the common stock of its subsidiary. During the current year, the parent purchases an additional $10 \%$ interest from noncontrolling shareholders. On which line of the following sections of the consolidated statement of cash flows would this cash transaction appear?

| Operating | Investing | Financing | No Adjustment |
| :---: | :---: | :---: | :---: |
| a. Yes | No | No | No |
| b. No | Yes | No | No |
| c. No | No | Yes | No |
| d. No | No | No | Yes |

ANS: C DIF: E OBJ: 1
17. Basic Earnings Per Share (BEPS) is calculated by dividing
a. consolidated net income by parent company outstanding stock.
b. consolidated net income by parent company outstanding stock and subsidiary outstanding stock.
c. consolidated net income by parent company outstanding stock and subsidiary noncontrolling outstanding stock.
d. the controlling interest in net income by parent company outstanding stock.

ANS: D
DIF: E
OBJ: 2
18. When the acquisition of a subsidiary occurs during a reporting period using the purchase method, the computation of both BEPS and DEPS includes subsidiary income
a. and subsidiary securities for the entire period.
b. for the entire period and the number of subsidiary shares weighted for the partial period.
c. for the partial period and the number of subsidiary shares weighted for the partial period
d. for the partial period and the number of subsidiary shares entire period

ANS: C
DIF: E
OBJ: 2
19. For two or more corporations to file a consolidated tax return, the parent must own what percentage of the voting power of all classes of stock and what percentage of the fair value of all the outstanding stock of the corporation?
a. 90\%
b. $80 \%$
c. $70 \%$
d. $60 \%$

ANS: B DIF: E OBJ: 3
20. In calculating the voting power and market value for two or more corporations to file a consolidated tax return, preferred stock is included only if it
a. is entitled to vote.
b. is not limited and not preferred as to dividends.
c. does have redemption rights beyond its issue price plus a reasonable redemption or liquidation premium and is convertible into the other class of stock.
d. meets any the above conditions.

ANS: D
DIF: E
OBJ: 3
21. Consolidated firms that meet the tax law requirements to be an affiliated group
a. must file a consolidated return.
b. must receive permission of the Internal Revenue Service to file separately.
c. may elect to file as a single entity or as a consolidated group.
d. cannot change the method of filing in the future.

ANS: C DIF: E OBJ: 3
22. When an affiliated group elects to be taxed as a single entity, taxable income is calculated based on
a. consolidated income as determined on the consolidated worksheet.
b. each firms separate income.
c. each firms separate income with adjustments for intercompany transactions.
d. none of the above.

ANS: A
DIF: E
OBJ: 3
23. For companies that meet the requirements of an affiliated firm filing separately, the parent may exclude how much of the dividends received from reported income?
a. $100 \%$
b. $80 \%$
c. $70 \%$
d. $20 \%$

ANS: A DIF: E OBJ: 4
24. For ownership interest of at least $20 \%$ but less than $80 \%$, the parent may exclude how much of the dividends received from its reported income when filing separately?
a. $100 \%$
b. $80 \%$
c. $70 \%$
d. $20 \%$

ANS: B DIF: E OBJ: 4
25. For ownership interest of less than $20 \%$, the parent may exclude how much of the dividends received from its reported income when filing separately?
a. $100 \%$
b. $80 \%$
c. $70 \%$
d. $20 \%$

ANS: C
DIF: E
OBJ: 4
26. Company P purchased an $80 \%$ interest in Company $S$ on January 1, 20X3, for $\$ 800,000$. On the purchase date, Company S stockholders' equity was $\$ 800,000$. Any excess of cost over book value was attributed to a patent with a 10 -year remaining life. In 20X3, Company P reported internally generated net income before taxes of $\$ 150,000$. Company $S$ reported a net income before taxes of $\$ 50,000$. The firms file a consolidated tax return at a $30 \%$ tax rate. The controlling share of consolidated net income is $\qquad$ .
a. $\$ 140,000$
b. $\$ 121,800$
c. $\$ 133,000$
d. $\$ 152,000$

ANS: B
DIF: D
OBJ: 3
27. Company $P$ purchased an $80 \%$ interest in Company $S$ on January 1, $20 \times 3$, for $\$ 700,000$. On the purchase date, Company $S$ stockholders' equity was $\$ 800,000$. Any excess of cost over book value was attributed to a patent with a 15-year life. In 20X3, Company P reported internally generated net income before taxes of $\$ 80,000$. Company $S$ reported a net income before taxes of $\$ 40,000$. The firms file separate tax returns at a $30 \%$ tax rate. Assume an $80 \%$ dividend exclusion rate on intercompany dividends. The controlling share of consolidated net income is
a. \$81,200
b. \$79,280
c. $\$ 78,480$
d. \$74,256

ANS: D
DIF: D
OBJ: 4
28. Which of the following statements is true?
a. When an affiliated group elects separate taxation, an additional tax needs to be calculated.
b. An affiliated group filing a consolidated tax return may record on its own books its share of the consolidated provision for income tax.
c. Nonaffiliated tax filing is less complex than filing a consolidated tax return since there is no impact of intercompany transactions when separate returns are filed.
d. With regard to prior years, subsidiary income, no deferred tax liability needs to be recognized when the cost method is used.

ANS: B DIF: M OBJ: 3, 4
29. How will the investor's investment account be affected by the investor's share of the earnings of the investee after the date of acquisition under each of the following accounting methods?

Cost Method
a. No effect
b. Increase
c. Increase
d. No effect

Equity Method
No effect
Increase
No effect
Increase

ANS: D DIF: E OBJ: 5
30. Company $P$ purchased a $30 \%$ interest in the Company $S$ for $\$ 345,000$ on January 1, 20X1. At that time, Company $S$ had stockholders' equity of $\$ 1,000,000$. Any excess cost over book value was attributed to a patent with a 15-year life. During 20X1, Company S earned \$60,000 and paid dividends of \$15,000. What is the balance in the investment account on December 31, 20X1, using the sophisticated equity method?
a. \$363, 000
b. \$360,000
c. $\$ 355,500$
d. $\$ 349,500$

ANS: C DIF: D OBJ: 5
31. Company $P$ owns a $30 \%$ interest in Company $S$ and accounts for the investment under the sophisticated equity method. The investment was purchased at underlying book value, and there is no excess of cost or book value. Company $S$ sells merchandise to Company P at cost plus 25\%. Intercompany sales during $20 \times 1$ were $\$ 100,000$. There were $\$ 20,000$ worth of such goods in Company $P^{\prime}$ s beginning inventory and $\$ 30,000$ worth of such goods in Company $\mathrm{P}^{\prime}$ s ending inventory. Company S's reported income for 20X1 is \$40,000, and no dividends were paid. What amount will Company $P$ record as investment income in 20X1?
a. \$12,000
b. \$11,400
c. \$9,750
d. $\$ 4,500$

ANS: B
DIF: D
OBJ: 5
32. Company $P$ Company uses the equity method to account for its January 1, 20X1, purchase of $30 \%$ of Company $S$ 's common stock. On January 1, 20X1, the market values of Tun's FIFO inventory and land exceed their book values. How do these excesses of market values over book values affect Company P's reported equity in Tun's Company S's 20X1 earnings?

Inventory Excess Land Excess
a. Decrease

Decrease
b. Decrease

No effect
c. Increase

Increase
d. Increase

No effect

ANS: B DIF: E OBJ: 5
33. Company $P$ purchased a $30 \%$ interest in Company $S$ on January 1, $20 \times 1$, for $\$ 100,000$. The price was equal to the book value of the equity acquired. The reported income (loss) and dividends paid by the Company $S$ are as follows:

| Year | Income (loss) | Dividends Paid |
| :---: | :---: | :---: |
| 20X1 | \$ 5,000 | \$5,000 |
| 20X2 | ( 270,000 ) | 0 |
| 20X3 | (100, 000) | 0 |
| 20X4 | 50, 000 | 5,000 |

Investment income reported in 20X4 under the sophisticated equity method would be $\qquad$ _.
a. \$15, 000
b. \$13,500
c. $\$ 5,500$
d. \$0

ANS: C
DIF: M
OBJ: 5
34. Company $P$ uses the sophisticated equity method of accounting for its $30 \%$ investment in Company S's common stock. During 20X9, Company S reported earnings of $\$ 650,000$ and paid dividends of $\$ 150,000$. Assume that all the undistributed earnings of Company $S$ will be distributed as dividends in future periods. The dividends received from Flax are eligible for the 80\% dividends received deduction. Company P's 20X9, tax rate is 30\%. Tax rates after 20X9 are 25\%. In its December 31, 20X9, balance sheet, the increase in the deferred tax liability from these transactions would be $\qquad$ _.
a. \$7,500
b. \$9,000
c. \$150, 000
d. \$30,000

ANS: A
DIF: D
OBJ: 5
35. Assume that Company $P$ purchases a $10 \%$ common stock interest in Company $S$ for \$12,000 on January 1, 20X2, and an additional $20 \%$ interest on January 1, 20X3, for $\$ 26,000$. There was no excess of cost or book value on either investment. The balance sheets of Company, $S$ which pays no dividends, follow:

|  | 12/31/X3 | 12/31/X2 | 01/01/X2 |
| :---: | :---: | :---: | :---: |
| Total assets | \$160,000 | \$130,000 | \$120,000 |
| Common stock | \$100, 000 | \$100, 000 | \$100, 000 |
| Retained earnings | 60,000 | 30, 000 | 20,000 |
| Total equity. | \$160,000 | \$130,000 | \$120,000 |

For 20X3, Company $P$ reports investment income of $\qquad$ .
a. \$18,000
b. \$12,000
c. \$9,000
d. \$6,000

ANS: C DIF: D OBJ: 5
36. Company $P$ acquired $30 \%$ of Company $S ' s$ common stock on January 1, 20X8, for $\$ 100,000$. Company $\mathrm{P}^{\prime} \mathrm{s} 30 \%$ interest constitutes significant influence. There is no excess of cost over book value. During 20X8, Company S earned \$40,000 and paid dividends of \$25,000. During 20X9, Company S earned $\$ 50,000$ and paid dividends of $\$ 15,000$ on April 1 and $\$ 15,000$ on October 1. On July 1, 20X9, Company $P$ sold half of its interest in Company $S$ for $\$ 66,000$ cash. The gain on the sale of the investment in Company P's 20X9 income statement should be $\qquad$ .
a. \$16,000
b. \$13,700
c. \$12,250
d. \$10,000

ANS: C DIF: D OBJ: 5

## PROBLEM

1. The separate condensed balance sheets and income statements of Par Corp. and its wholly owned subsidiary, Sub Corp., are as follows:

Balance Sheets
December 31, 20X8

| Assets | Par | Sub |
| :---: | :---: | :---: |
| Current |  |  |
| Cash. | \$ 149,000 | \$ 50,000 |
| Accounts receivable ( net) | 190,000 | 60,000 |
| Inventories | 90, 000 | 40,000 |
| Total current assets | \$ 429,000 | \$150,000 |
| Property, plant, and equipment (net) | \$ 361,000 | \$200, 000 |
| Investment in Sub (equity method) | 320,000 | -- |
| Total assets | \$1,110,000 | \$350, 000 |

## Liabilities and Stockholders' Equity

Current liabilities
Accounts payable.
Accrued liabilities.
\$ 100,000
Total current liabilities.
30, 000
\$ 130,000
$\$ 70,000$
20,000
$\$ 90,000$
$========$

Stockholders' equity

| Common stock (\$10 par) | \$ | 220,000 | \$ 30, 000 |
| :---: | :---: | :---: | :---: |
| Additional paid-in capital |  | 140,000 | 100, 000 |
| Retained earnings |  | 620,000 | 130,000 |
| Total stockholders' equity | \$ | 980, 000 | \$260,000 |
| Total liabilities and stockholders' equity. | \$ | 100,000 | \$350, 000 |

Income Statement For the Year Ended December 31, 20X8

|  | Par | Sub |
| :---: | :---: | :---: |
| Sales | \$1,000,000 | \$300, 000 |
| Cost of goods sold | 770,000 | 200, 000 |
| Gross margin. | \$ 230,000 | \$100,000 |
| Other operating expenses | 130,000 | 50,000 |
| Operating income. | \$ 100,000 | \$ 50,000 |
| Equity in earnings of Sub | 30, 000 | -- |
| Income before taxes. | \$ 130,000 | \$ 50,000 |
| Provision for income taxes | 40,000 | 20,000 |
| Net income. | \$ 90,000 | \$ 30,000 |

On January 1, 20X8, Par purchased all of Sub $\$ 10$ par, voting common stock for $\$ 300,000$. On January 1, 20X8, the fair value of Sub assets and liabilities equaled the carrying amounts of $\$ 330,000$ and $\$ 90,000$, respectively. The excess purchase price is attributable to goodwill.

During 20X8, Par and Sub paid cash dividends of \$50,000 and \$10,000, respectively. For tax purposes, Par receives the 100\% exclusion for dividends received from Sub.

There were no intercompany transactions other than Par's receipt of dividends from Sub and Par's recording of its share of Sub's earnings.

On June 30, 20X8, Par issued 2,000 shares of common stock for $\$ 17$ per share. There were no other changes in either Par's or Sub's common stock during 19X8.

Both Par and Sub paid income taxes at the rate of $40 \%$.

## Required:

(1) In the $20 \times 8$ consolidated income statement of Par and its subsidiary, what amount should be reported as consolidated net income?
a. \$60, 000
b. $\$ 87,600$
C. $\$ 90,000$
d. \$117, 600
(2) The consolidated balance sheet of Par and its subsidiary should report total consolidated assets of:
a. \$1,110,000
b. \$1,144, 000
c. \$1, 200, 000
d. \$1,460, 000
(3) The consolidated balance sheet of Par and its subsidiary should report total retained earnings of:
a. \$620, 000
b. \$640,000
c. $\$ 650,000$
d. $\$ 750,000$
(4) In the consolidated income statement of Par and its subsidiary, how much expense should be reported for amortization?
a. \$0
b. $\$ 3,000$
C. $\$ 4,000$
d. \$10,000
(5) In computing the consolidated earnings per share for Par and Sub, the number of shares used should be:
a. 25,000
b. 24, 000
c. 22,000
d. 21, 000
(6) In the December 31, 20X8, consolidated balance sheet of Par and its subsidiary, how much should be reported as total current assets?
a. \$150,000
b. \$280, 000
c. $\$ 429,000$
d. $\$ 579,000$
(7) Par's January 1, 20X8, inventory was \$110,000. Par's (parent only) 20X6 inventory turnover ratio was:
a. 11.1
b. 10.0
c. 7.7
d. 7.0
(8) In Par's 20X8 income statement, what amount of deferred income taxes on Par's equity in Sub's earnings should be included in Par's provision for income taxes?
a. \$0
b. \$2,000
c. \$10,000
d. \$12, 000

ANS:

| (1) $c$ | $(5) d$ |
| :--- | :--- |
| (2) $c$ | $(6)$ |
| (3) $a$ | $(7)$ |
| (4) $a$ | $(8)$ |

DIF: M OBJ: 3
2. Company $S$ has been an $80 \%$-owned subsidiary of Company $P$ since January 1, 20X7. The determination and distribution of excess schedule prepared at the time of purchase was as follows:

| Price paid |  | \$570, 000 |
| :---: | :---: | :---: |
| Less interest acquired: |  |  |
| Total stockholders' equity | \$600, 000 |  |
| Interest acquired. | 80\% | 480, 000 |
| Excess of cost over book value |  | \$ 90,000 |
| Undervaluation of equipment, |  |  |
| \$62,500 x . $8 \times$ (10-year life) |  | 50,000 |
| Goodwill |  | \$ 40,000 |

On January 2, 20X9, Company P issued \$120,000 of $8 \%$ bonds at face value to help finance the purchase of $25 \%$ of the outstanding common stock of Alpha Company for $\$ 200,000$. No excess resulted from this transaction. Alpha earned \$100,000 net income during $20 \times 7$ and paid \$20,000 in dividends.

The only change in plant assets during $20 \times 9$ was that Company $S$ sold a machine for $\$ 10,000$. The machine had a cost of $\$ 60,000$ and accumulated depreciation of $\$ 40,000$. Depreciation expense recorded during 20X7 was as follows:

|  | Company P | Company S | Alpha Company |
| :---: | :---: | :---: | :---: |
| Buildings | \$15, 000 | \$ 8,000 | \$12,000 |
| Machinery. | 35,000 | 20,000 | 4, 000 |

The 20X9 consolidated income was $\$ 180,000$, of which the NCI was $\$ 10,000$. Company $P$ paid dividends of $\$ 12,000$, and Company $S$ paid dividends of \$10, 000 .

Consolidated inventory was \$287,000 in 20X8 and \$223,000 in 20X9; consolidated current liabilities were \$246,000 in 20X8 and \$216,700 in 20X9. Cash increased by \$205,700.

Required:
Prepare the 20X9 consolidated statement of cash flows for Company P. and its subsidiary, Company S.

ANS：
Company P and Subsidiary Company S Consolidated Statement of Cash Flows For the Year Ended December 31，20X9

```
Cash flows from operating activities:
    Consolidated net income................. $ 170,000
    Adjustment to reconcile net income to net
    cash:
        NCI in income........................... $ 10,000
        Building depreciation
        23,000
        Machine depreciation (includes $5,000
            from determination and distribution
            of excess)...............................
        60,000
        Undistributed equity income from
            Alpha investment
        (20,000)
        Loss on machinery................................ 10,000
        Decrease in inventory..........................64,000
        Decrease in current liabilities....... (29,300)
        Total adjustments........................
Net cash flows provided by operating
    activities
Payment for purchase of Alpha Corp
$(200,000)
    Sale of machine
        10,000
Net cash flows provided by investing
    activities
Cash flows from financing activities:
    8% bond issuance......................... $ 120,000
    Dividends paid
            By Company P..................... (12,000)
            By Company S.................. (2,000)
        (14,000)
Net cash flows provided by
    financing activities...................
    106,000
Net increase in cash
$ 203,700
ニニニ=ニ=ニ==
```

DIF: M
OBJ: 1
3. Company $P$ purchased an $80 \%$ interest in Company $S$ on January 1, 20X3, for $\$ 246,000$ cash. The appraisal showed that some of Company S's equipment, with a 5-year estimated remaining life, was undervalued $\$ 25,000$. The excess purchase price is attributed to goodwill. The following is the Company $S$ balance sheet on December 31, 20X2:

Assets

| Cash | \$ 30,000 |
| :---: | :---: |
| Inventory. | 30,000 |
| Property, plant, and equipment. | 300, 000 |
| Accumulated depreciation | ( 90, 000) |
| Total assets. | \$270,000 |

## Liabilities and Equity



Comparative balance sheet data are as follows:

|  | December 31, 20X2 <br> (Parent only) | December 31, 20X3 (Consolidated) |
| :---: | :---: | :---: |
| Cash | \$ 100,000 | \$ 87,100 |
| Inventory | 60,000 | 84,200 |
| Property, plant, and equipment | 950,000 | 1,346,000 |
| Accumulated depreciation. | (360, 000 ) | (574, 000 ) |
| Goodwill. | 0 | 66,000 |
| Current liabilities | $(80,000)$ | $(115,000)$ |
| Long-term liabilities | $(100,000)$ | (130, 000 ) |
| NCI | 0 | $(43,000)$ |
| Controlling interest: |  |  |
| Common stock (\$10 par). | $(350,000)$ | (400, 000 ) |
| Additional paid-in capital | (50, 000) | $(90,000)$ |
| Retained earnings. | (170,000) | (231, 300 ) |
|  | \$ 0 | \$ 0 |

The following information relates to the activities of the two firms for 20X3:
(1) Company $S$ issued 5,000 shares of common stock for $\$ 18$ a share.
(2) Company $S$ paid off $\$ 10,000$ of its long-term debt.
(3) Company $P$ purchased production equipment for $\$ 76,000$.
(4) Consolidated net income was $\$ 103,900$; the NCI's share was \$6,000. Depreciation expense taken by Company $P$ and Company $S$ on their separate books was $\$ 92,000$ and $\$ 28,000$, respectively.
(5) Company P paid $\$ 30,000$ in dividends; Company $S$ paid $\$ 15,000$.

Chapter 6

## Required:

Prepare the consolidated statement of cash flows for the year ended December 31, 20X3, for Company $P$ and its subsidiary, Company S.

ANS:
Determination and Distribution of Excess Schedule:

| Price paid | \$246, 000 |
| :---: | :---: |
| Less interest acquired, 80\% x \$200,000 | 160,000 |
| Excess of cost over book value | \$ 86,000 |
| Undervaluation of equipment, $80 \% \times \$ 20,000$ (5-year life, \$4,000 per year)........... | 20,000 |
| Goodwill | \$ 66,000 |

> | Company $P$ and Subsidiary Company S |
| :--- |
| Consolidated Statement of Cash Flows |
| For the Year Ended December $31,20 X 3$ |

```
Cash flows from operating activities:
    Consolidated net income................... $ 97,900
    Adjustment to reconcile net income to
        net cash
            NCI in net income....................... $
            6,000
            Depreciation ($92,000 + $28,000 + $4,000) 124,000
            Decrease in inventory...................
                                5,800
        Increase in current liabilities......... 5,000
            Total adjustments
            140,800
Net cash provided by operating activities....
$ 238,700
Cash flows from investing activities:
    Payment for purchase of Company S,
        net of cash acquired.................... $(216,000)
Purchase of production equipment............ (76,000)
Net cash provided by investing activities....
    (292,000)
Cash flows from financing activities:
    Common stock issuance (5,000 shares x $18
        per share)................................ $ 90,000
    Decrease in long-term debt................. (10,000)
    Dividends paid:
        By Company P................... $(30,000)
        By Company S, to noncontrolling
            interest.................... (3,000) (33,000)
Net cash provided by financing activities..
Net decrease in cash......................
Cash at beginning of year
Cash at year end..........................................
$ ( 6,300)
    100,000
$ 93,700
=========
```

Schedule of noncash investing activity:
Company P purchased $80 \%$ of the capital stock of Company S for $\$ 246,000$. In conjunction with the acquisition, liabilities were assumed and a noncontrolling interest was created as follows:

Adjusted value of assets acquired
( $\$ 270,000$ book value plus $\$ 86,000$ excess). \$356,000
Cash paid for capital stock............... 246,000
Liabilities assumed
NCI, \$200,000 x 20\%
\$110, 000
70,000
\$ 40, 000
=======

DIF: M OBJ: 1
4. On January 1, 20X1, Price Company purchased $80 \%$ of the common stock of Sidex Company for \$228,000.

Presented below are columns for the January 1, 20X1 condensed balance sheets of Sidex and Price, as well as the December 31, 20X1 consolidated balance sheet.


On January 1, 20X1, the only tangible net assets of Sidex which were undervalued were inventory and building. Inventory, for which FIFO is used, was undervalued $\$ 10,000$. The building was worth $\$ 15,000$ more than book value. It had a remaining useful life of 10 years on January 1, 20X1 and straight-line depreciation was used. The excess purchase price was attributed to a patent with a remaining life of 10 years. The Price company concept (pro rata market value approach) was used in revaluation of assets.

The 20X1 Consolidated Income Statement showed:

| Sales | \$ 800, 000 |
| :---: | :---: |
| Cost of Goods Sold | ( 488, 000 ) |
| Operating Expenses | ( 203, 200 ) |
| Consolidated Net Income | \$ 108,800 |
| To NCI | 8, 000 |
| To Controlling Interest | \$ 100,800 |

Operating expenses include depreciation of $\$ 31,200$ and patent
amortization of \$2,000. In December 19X1, Price declared and paid
dividends of $\$ 30,000 ;$ Sidex declared and paid dividends of $\$ 10,000$.

## Required:

a. Complete the Figure 6-1 worksheet for a consolidated statement of cash flows for 20X1.
b. Prepare the supplementary disclosure of non-cash investing and financing activities for the statement of cash flows for 20X1.

ANS:
a. For the worksheet solution, please refer to Answer 6-1.
b. Supplemental schedule of noncash investing and financing activity:
Price Company purchased $80 \%$ of the common stock of Sidex Company for $\$ 228,000$. In conjunction with the acquisition, liabilities were assumed and a noncontrolling interest was created as follows:

Adjusted value of assets acquired:
( $\$ 310,000$ book value plus $\$ 40,000$ excess)........ \$350,000
Cash paid for common stock............................ 228,000

Liabilities assumed.................................... \$ 75,000
NCI created........................................... \$47,000
$\$ 47,000$
$======$

DIF: D OBJ: 1
5. On January 1, 20X1, Parent Company purchased $80 \%$ of the common stock of Subsidiary Company at a cost of $\$ 252,000$. Parent paid $\$ 152,000$ in cash and issued 1,000 shares of $8 \%$ preferred stock with par and market value of $\$ 100,000$ for $80 \%$ of Subsidiary's common stock.

Presented below are columns for the January 1, $20 X 1$ condensed balance sheets of Subsidiary and Parent, as well as the December 31, 20X1 consolidated balance sheet.

|  | Balances, | -1-20X1 | Consolidated Balances |
| :---: | :---: | :---: | :---: |
|  | Subsidiary | Parent |  |
| Cash. | \$ 25,000 | \$ 160,000 | \$ 177,000 |
| Other Current Assets | 90, 000 | 100, 000 | 266,000 |
| Land. | 40, 000 | 110, 000 | 150, 000 |
| Building | 200,000 | 350, 000 | 650,000 |
| Accumulated Depreciation. | $(40,000)$ | $(100,000)$ | $(180,000)$ |
| Patent |  |  | 56,000 |
|  | \$315,000 | \$ 620,000 | \$1,119,000 |
|  | ======== | $=======$ | ========== |
| Current Liabilities. | \$ 25,000 | \$120, 000 | \$ 185,000 |
| Long-term Liabilities | 50, 000 | 100, 000 | 300, 000 |
| Preferred Stock. |  |  | 100,000 |
| Common Stock. | 20,000 | 50,000 | 50,000 |
| Other Paid-in Capital | 80, 000 | 150,000 | 150,000 |
| Retained Earnings. | 140,000 | 200, 000 | 280,000 |
| NCI |  |  | 54,000 |
|  | \$315,000 | \$620,000 | \$1,119,000 |

On January 1, 20x1, all of the identifiable net assets of Subsidiary had market values equal to book values, except for an internally-developed patent. In the consolidated statements, the patent was amortized over 15 years.

The 20x1 Consolidated Income Statement showed:

| Sales | \$ 800,000 |
| :---: | :---: |
| Cost of Goods Sold | ( 480, 000) |
| Operating Expenses | $(204,000)$ |
| Consolidated Net Income | \$ 16,000 |
| To NCI | 8,000 |
| To Controlling Interest | \$ 108,000 |

Operating expenses include depreciation of $\$ 40,000$, as well as amortization of the patent. In December 20X1, Parent declared and paid dividends of $\$ 28,000$; Subsidiary declared and paid dividends of $\$ 10,000$.

On July 1, 20x1, Parent sold land to Subsidiary for cash equal to the cost of the land, $\$ 50,000$. Subsidiary then paid cash of $\$ 100,000$ to have a building constructed by an independent contractor. To finance the property acquisition, Subsidiary borrowed $\$ 150,000$ from the bank on a long-term note, guaranteed by Parent Company.

Required:
a. Complete the Figure 6-2 worksheet for a consolidated statement of cash flows for 20X1.
b. Prepare the supplementary disclosure of non-cash investing and financing activities for the statement of cash flows for $20 X 1$.

ANS:
a. For the worksheet solution, please refer to Answer 6-2.
b. Supplemental schedule of noncash investing and financing activity:

During 20x1, Parent Company purchased $80 \%$ of the common stock of Subsidiary Company for cash of $\$ 152,000$ and preferred stock with market value of $\$ 100,000$. In conjunction with the acquisition, liabilities were assumed, preferred stock was issued, and a noncontrolling interest was created as follows:

Adjusted value of assets acquired:
( $\$ 315,000$ book value plus $\$ 60,000$ excess).......... $\$ 375,000$
Cash paid for common stock................................. 152,000
Balance.............................................................. . . $\$$.

Liabilities assumed......................................... \$ 75,000
Preferred stock issued....................................... 100 .... 0 .
NCI created........................................................ 48 48,000
\$223,000
========

DIF: D
OBJ: 1
6. Dills Company purchased an $80 \%$ interest in the common stock of Sarada Company for $\$ 860,000$ on January 1, 20X7. The price was $\$ 90,000$ in excess of the book value of the underlying equity, and the excess was attributed to a patent with a 10-year life.

During 20X9, Dills Company and Sarada Company reported the following internally generated income before taxes:

|  | Dills Co. | Sarada Co. |
| :---: | :---: | :---: |
| Sales | \$ 300,000 | \$120, 000 |
| Cost of goods sold | ( 200, 000) | (90, 000 ) |
| Gain on machine | 10,000 | -- |
| Expenses | (40, 000) | $(20,000)$ |
| Income before taxes | \$ 70,000 | \$ 10,000 |

Sarada Company sold goods to Dills Company for $\$ 60,000$. Dills Company had \$30,000 of Sarada Company's goods in its beginning inventory and $\$ 12,000$ of Sarada Company's goods in its ending inventory. Sarada Company sells goods to Dills Company at cost plus 20\%.

Dills Company sold a new machine to Sarada Company on January 1, 20X9, for $\$ 40,000$. The cost of the machine was $\$ 30,000$. It has a 5 -year life.

The affiliated group files a consolidated tax return and is taxed at 30\%.

Required:
Prepare a consolidated income statement for 20X9. Include income distribution for both firms.

ANS:

> Dills Company and Sarada Company Consolidated Income Statement
> For the Year Ended December 31, 20X9

| Sales (less \$60,000 intercompany sales) | \$ 360,000 |
| :---: | :---: |
| Cost of goods sold (\$290,000 - \$60,000 intercompany |  |
| sales - \$5,000 beginning inventory profit + \$2,000 ending inventory profit) | $(227,000)$ |
| Expenses ( $\$ 60,000+\$ 9,000$ patent amortization |  |
| \$2,000 depreciation adjustment) | $(67,000)$ |
| Income before taxes | 66,000 |
| Provision for income tax, 30\% x \$66,000 | $(19,800)$ |
| Consolidated net income | 46,200 |
| Less NCI | $(1,820)$ |
| Net income | \$ 44,380 |

Sarada Company's Income Distribution

| ```Ending inventory profit............. $2,000``` | Internally generated income. Beginning inventory profit | $\begin{array}{r} \$ 10,000 \\ 5,000 \end{array}$ |
| :---: | :---: | :---: |
|  | Adjusted income. | \$13,000 |
|  | Tax, 30\%.. | 3,900 |
|  | Net income | \$ 9,100 |
|  | NCI share | 20\% |
|  | NCI | \$ 1,820 |

Dills Company's Income Distribution


DIF: M OBJ: 3
7. Dills Company purchased an $80 \%$ interest in the common stock of Sarah Company for $\$ 860,000$ on January 1, 20X7. The price was $\$ 90,000$ in excess of the book value of the underlying equity, and the excess was attributed to a patent with a 10-year life.

During 20X9, Dills Company and Sarah Company reported the following internally generated income before tax:

|  | Dills Co. | Sarah Co. |
| :---: | :---: | :---: |
| Sales | \$ 300,000 | \$120,000 |
| Cost of goods sold | (200, 000) | (90, 000) |
| Gain on machine | 10,000 | - - |
| Expenses | $(40,000)$ | $(20,000)$ |
| Income before tax | \$ 70,000 | \$ 10,000 |

Sarah Company sold goods to Dills Company for \$60,000. Dills Company had $\$ 30,000$ of Sarah Company goods in its beginning inventory and $\$ 12,000$ of Sarah Company's goods in its ending inventory. Sarah Company sells goods to Dills Company at cost plus 20\%.

Dills Company sold a new machine to Sarah Company on January 1, 20X9, for $\$ 40,000$. The cost of the machine was $\$ 30,000$. It has a 5 -year life.

The firms file separate tax returns. Both are subject to a $30 \%$ tax rate. Dills Company receives an $80 \%$ dividend deduction.

Required:
Prepare a consolidated income statement for 20X9. Include income distribution for both firms.

ANS:
Dills Company and Sarah Company Consolidated Income Statement
For the Year Ended December 31, 20X9

| Sales (less \$60,000 intercompany sales) .................... ${ }^{\text {a }}$ ( 360,000cost of goods sold (\$290,000 - \$60,000 intercompany |  |
| :---: | :---: |
|  |  |
| sales - \$5,000 beginning inventory profit + \$2,000 |  |
| ending inventory profit) | $(227,000)$ |
| Expenses (\$60,000 + \$9,000 patent amortization |  |
| \$2,000 depreciation adjustment) | $(67,000)$ |
| Income before taxes | \$ 66,000 |
| Provision for income tax, (3,900 + 15,900 + 437) | $(20,237)$ |
| Consolidated net income | \$ 45,763 |
| Less noncontrolling interest | $(1,820)$ |
| Net income | \$ 43,943 |

Sarah Company's Income Distribution

| Ending inventory profit........ | \$2,000 | Internally generated income. Beginning inventory profit | $\begin{array}{r} \$ 10,000 \\ 5,000 \end{array}$ |
| :---: | :---: | :---: | :---: |
|  |  | Adjusted income. | \$13, 000 |
|  |  | Tax, 30\%. | 3,900 |
|  |  | Net income | \$ 9,100 |
|  |  | NCI share. | 20\% |
|  |  | Noncontrolling interest | \$ 1,820 |

Dills Company's Income Distribution

| $\begin{array}{lr} \hline \text { Gain on machine sale } \$ 10,000 \\ \text { Patent amortization } & 9,000 \end{array}$ |  |
| :---: | :---: |
|  | Adjusted before tax........ \$ 60,280 Dolls Company tax,. 3 x $\begin{equation*} (70,000+2,000-10,000 \tag{15,900} \end{equation*}$ <br> Adjusted net income. |

DIF: M OBJ: 4
8. On January 1, 20X8, Paul Company purchased $80 \%$ of the common stock of Smith Company for $\$ 300,000$. On this date Smith had total owners' equity of $\$ 350,000$. Any excess of cost over book value is attributed to a patent, to be amortized over 10 years.

During 20X8, Paul has appropriately accounted for its investment in Smith using the simple equity method.

During 20X8, Paul sold merchandise to Smith for $\$ 50,000$, of which $\$ 10,000$ is held by Smith on December 31, 20X8. Paul's gross profit on sales is 40\%.

During 20X8, Smith sold some land to Paul at a gain of \$10,000. Paul still holds the land at year end.

Paul and Smith qualify as an affiliated group for tax purposes and thus will file a consolidated tax return. Assume a 30\% corporate income tax rate.

## Required:

Complete the Figure 6-3 worksheet for consolidated financial statements for the year ended December 31, 20X8.

ANS:
For the worksheet solution, please refer to Answer 6-3.
Eliminations and Adjustments:
CY Eliminate the current-year entries made in the investment account and in the Smith income account.

EL Eliminate $80 \%$ of Smith Company equity balances at the beginning of the year against the investment account.

D Distribute the $\$ 20,000$ excess of cost over book value to the patent.

A Amortize the patent over 10 years.
IS Eliminate the entire intercompany sales of $\$ 50,000$.
EI Eliminate the $\$ 4,000$ of gross profit in the ending inventory.

LA Eliminate the $\$ 10,000$ gain on sale of land against the land account.

T Record provision for income tax, calculated as follows:
Consolidated income before tax...................... \$154,000
Multiply by corporate tax rate...................... 30 30\%
Tax liability....................................... \$ 46,200
=======

Consolidated Net Income:

To Noncontrolling Interest: 70,000-10,000 = 60,000-(.3 x $60,000)=42,000 \times .2=\$ 8,400$

To Controlling Interest: 100,000-4,000 - 28,200 + (. 8 x 42,000) - 2,000 = \$99,400

Taxes on Smith are $30 \% \times \$ 60,000=\$ 18,000$.
$\$ 46,200-18,000=\$ 28,200$ taxes on consolidated income.

DIF: D OBJ: 3
9. On January 1, 20X1, Parent Company purchased $75 \%$ of the common stock of Subsidiary Company for $\$ 252,000$. On this date Subsidiary had total owners' equity of $\$ 300,000$. Any excess of cost over book value is attributed to a patent, to be amortized over 15 years.

During 20X1, Parent has appropriately accounted for its investment in Subsidiary using the simple equity method.

During 20X1, Parent sold merchandise to Subsidiary for $\$ 50,000$, of which $\$ 10,000$ is held by Subsidiary on December 31, 20X1. Parent's gross profit on sales is 40\%.

During 20X1, Subsidiary sold some land to Parent at a gain of $\$ 10,000$. Parent still holds the land at year end.

Parent and Subsidiary do not qualify as an affiliated group for tax purposes and thus will file separate tax returns. Assume a $30 \%$ corporate income tax rate and an $80 \%$ dividends-received deduction.

Required:
Complete the Figure 6-4 worksheet for consolidated financial statements for the year ended December 31, 20X1.

ANS:
For the worksheet solution, please refer to Answer 6-4.
Eliminations and Adjustments:
CY Eliminate the current-year entries made in the investment account and in the subsidiary income account.

EL Eliminate $75 \%$ of Subsidiary Company equity balances at the beginning of the year against the investment account.

D Allocate the $\$ 27,000$ excess to the patent.
A Amortize the patent over 15 years, \$1,800 per year.
IS Eliminate the entire intercompany sales of \$50,000.
EI Eliminate the $\$ 4,000$ of gross profit in the ending inventory.

LA Eliminate the $\$ 10,000$ gain on sale of land against the land account.

T Adjust for the tax effects of the patent amortization and intercompany profit eliminations as follows:

| Dr./(Cr.) | Provision for Income Taxes |  |  | Deferred Tax |
| :---: | :---: | :---: | :---: | :---: |
| See Note | 75\% Cont | Int. | 25\% Min. Int. | Asset/Liability |
| (a) | \$ (540) |  |  | \$ 540 |
| (b) | $(1,200)$ |  |  | 1,200 |
| (c) | $(2,250)$ |  | \$(750) | 3,000 |
| (d) | (315) |  |  | 315 |
|  | \$(4,305) |  | \$(750) | \$5,055 |

(a) Adjustment (A) for amortization of the patent was not recognized in Parent's records.

Parent's Provision for Income Taxes, therefore, must be decreased by $.3 \times \$ 1,800$ or $\$ 540$.
(b) Adjustment (EI) for intercompany gross profit in ending inventory debits cost of goods sold and, thus, decreases 20X1 income by $\$ 4,000$. Parent's Provision for Income Taxes then must be decreased by $.3 \times(4,000)$ or $\$ 1,200$.
(c) Adjustment (LA) eliminates Subsidiary's intercompany profit on sale of land of $\$ 10,000$ and, thus, decreases 20X1 income by \$10,000.

Subsidiary's Provision for Income Taxes then must be decreased by $30 \% \times(\$ 10,000)$ or $\$ 3,000$, split $75 \%$ and $25 \%$ between controlling and NCI.
(d) Parent's share of Subsidiary's 20X1 income is decreased by $75 \% \times(\$ 10,000-3,000)$ or 5,250.

Parent's tax provision on its equity interest must thus be decreased by $20 \% \times 30 \% \times \$ 5,250$ or $\$ 315$.

Consolidated Net Income:
To NCI: \$50,000-10,000 = 40,000 - . 3 x
$(40,000)=28,000 \times .25=\$ 7,000$
To Controlling Interest: (100,000-[32,250-315]) - (4,000-1,200) + $(.75 \times 28,000)-(1,800-540)=\$ 85,005$

DIF: D
OBJ: 4
10. On January 1, 20X1, Parent Company acquired $100 \%$ of the common stock of Subsidiary Company in a stock exchange. On this date Subsidiary had total owners' equity of $\$ 550,000$ and book value approximated fair value.

During 20X1 and 20X2, Parent has appropriately accounted for its investment in Subsidiary using the simple equity method.

On January 1, 20X2, Parent held merchandise acquired from Subsidiary for \$75,000. During 20X2, Subsidiary sold merchandise to Parent for $\$ 100,000$, of which $\$ 25,000$ is held by Parent on December 31, $20 X 2$. Subsidiary's usual gross profit on affiliated sales is 50\%.

On December 31, 20X1, Parent sold to Subsidiary some equipment with a cost of $\$ 75,000$ and a book value of $\$ 30,000$. The sales price was $\$ 32,000$. Subsidiary is depreciating the equipment over a 5 -year life, assuming no salvage value and using the straight-line method.

Parent and Subsidiary qualify as an affiliated group for tax purposes and thus will file a consolidated tax return. Assume a $30 \%$ corporate income tax rate.

Required:
Complete the Figure 6-5 worksheet for consolidated financial statements for the year ended December 31, 20X2.

ANS:
For the worksheet solution, please refer to Answer 6-5.
Eliminations and Adjustments:
CY Eliminate the current-year entries made in the investment account and in the subsidiary income account.

EL Eliminate 100\% of Subsidiary Company equity balances at the beginning of the year against the investment account.

BI Eliminate the $\$ 37,500$ of gross profit in the beginning inventory.

IS Eliminate the entire intercompany sales of $\$ 100,000$.
EI Eliminate the $\$ 12,500$ of gross profit in the ending inventory.

F1 Eliminate the $\$ 10,000$ gain on sale of equipment against retained earnings of Parent, restore the asset to its original cost, and restore the $\$ 45,000$ of accumulated depreciation written off upon transfer.

F2 Eliminate the $\$ 2,000$ of excess depreciation for $20 \times 2$ on the transferred equipment.

T Record provision for income tax, calculated as follows:
Consolidated income before tax................. \$297,000
Multiply by corporate tax rate................... $30 \%$
Tax liability........................................... . . $\$ 89,100$
========
Consolidated Net Income:
To Noncontrolling Interest: 0
To Controlling Interest: 120,000 + 2,000 + (100\% x
$[150,000+37,500-12,500])=$
297,000-(.3 x 297,000) $=\$ 207,900$

DIF: M OBJ: 3
11. On January 1, 20X1, Proud Company purchased $90 \%$ of the common stock of Slattery Company for $\$ 573,000$, in a taxable combination. On this date Slattery had total owners' equity of $\$ 550,000$, including retained earnings of \$300,000.

On January 1, 20X1, the only tangible asset of Slattery which was undervalued was equipment, which was worth $\$ 20,000$ more than book value. The equipment has a remaining life of 6 years and is depreciated using the straight-line method. The excess purchase price, if any, is attributed to a patent to be amortized over 15 years.

During 20X1 and 20X2, Proud has appropriately accounted for its investment in Slattery using the cost method.

On January 1, 20X2, Slattery held merchandise acquired from Proud for $\$ 20,000$. During 20X2, Proud sold merchandise to Slattery for $\$ 75,000$, of which \$15,000 is held by Slattery on December 31, 20X2. Proud's usual gross profit on affiliated sales is $40 \%$.

On December 31, 20X1, Slattery sold to Proud some equipment with a cost of $\$ 40,000$ and a book value of $\$ 20,000$. The sales price was $\$ 32,000$. Proud is depreciating the equipment over a 4-year life, assuming no salvage value and using the straight-line method.

Proud and Slattery qualify as an affiliated group for tax purposes and thus will file a consolidated tax return. Assume a $30 \%$ corporate income tax rate.

Required:
Complete the Figure 6-6 vertical worksheet for consolidated financial statements for the year ended December 31, 20X2.

ANS:
For the worksheet solution, please refer to Answer 6-6.
Eliminations and Adjustments:
CV Convert to the simple equity method as of January 1, 20X1 (90\% of $\$ 50,000$ increase in retained earnings from January 1, 20X1 to January 1, 20X2).

CY Eliminate the current-year dividend income of Proud against dividends declared by Slattery.

EL Eliminate $90 \%$ of Slattery Company equity balances at the beginning of the year against the investment account.

D Allocate the $\$ 78,000$ excess of cost over book value as follows: \$18,000 to equipment (90\% of \$20,000 undervaluation) and $\$ 60,000$ to the patent.

A1 Depreciate the increase to equipment over 6 years, with \$3,000 for 20X1 charged to retained earnings, and \$3,000 for 20X2 charged to operating expenses.

A2 Amortize the patent over 15 years, with \$4,000 for 20X1 charged to retained earnings, and $\$ 4,000$ for $20 \times 2$ charged to operating expenses.

BI Eliminate the $\$ 8,000$ of gross profit in the beginning inventory.

IS Eliminate the entire intercompany sales of $\$ 75,000$.
EI Eliminate the $\$ 6,000$ of gross profit in the ending inventory.

F1 Eliminate the $\$ 12,000$ gain on sale of equipment against retained earnings of Proud and Slattery, restore the asset to its original cost, and restore the $\$ 20,000$ of accumulated depreciation written off upon transfer.

F2 Eliminate the $\$ 3,000$ of excess depreciation for $20 X 2$ on the transferred equipment.

T Record the provision for income tax, calculated as follows:

| Consolidated income before tax................. | $\$ 198,000$ |
| :--- | :--- |
| Multiply by corporate tax rate................. | $30 \%$ |
| Tax liability................................... | $\$ 59,400$ |

Consolidated Net Income:
To Noncontrolling Interest: $80,000+3,000=83,000-.3 x$
$(83,000)=58,100 \times .1=\$ 5,810$
To Controlling Interest: $120,000+8,000-6,000-34,500+$
(. $9 \times 58,100$ ) - 3,000-4,000 = \$132,790

Taxes on Slattery are (. $3 \times 83,000$ ) or $\$ 24,900$.
$\$ 59,400-\$ 24,900=\$ 34,500$ taxes on consolidated income.

DIF: D
OBJ: 3
12. On January 1, 20X1, Proud Company purchased $90 \%$ of the common stock of Slattery Company for $\$ 573,000$, in a taxable combination. On this date Slattery had total owners' equity of \$550,000.

On January 1, 20X1, the only tangible asset of Slattery which was undervalued was equipment, which was worth $\$ 20,000$ more than book value. The equipment has a remaining life of 6 years and is depreciated using the straight-line method. The excess purchase price, if any, is attributed to a patent to be amortized over 15 years.

During 20X1 and 20X2, Proud has appropriately accounted for its investment in Slattery using the simple equity method.

On January 1, 20X2, Slattery held merchandise acquired from Proud for \$20,000. During 20X2, Proud sold merchandise to Slattery for $\$ 75,000$, of which \$15,000 is held by Slattery on December 31, 20X2. Proud's usual gross profit on affiliated sales is 40\%.

On December 31, 20X1, Slattery sold to Proud some equipment with a cost of $\$ 40,000$ and a book value of $\$ 20,000$. The sales price was $\$ 32,000$. Proud is depreciating the equipment over a 4-year life, assuming no salvage value and using the straight-line method.

Proud and Slattery qualify as an affiliated group for tax purposes and thus will file a consolidated tax return. Assume a 30\% corporate income tax rate.

Required:
Complete the Figure 6-7 worksheet for consolidated financial statements for the year ended December 31, 20X2.

ANS:
For the worksheet solution, please refer to Answer 6-7.
Eliminations and Adjustments:
CY Eliminate the current-year entries made in the investment account and in the Slattery income account.

EL Eliminate 90\% of Slattery Company equity balances at the beginning of the year against the investment account.

D Distribute the $\$ 78,000$ excess of cost over book value as follows: \$18,000 to accumulated depreciation on equipment ( $90 \%$ of $\$ 20,000$ undervaluation) and $\$ 60,000$ to the patent.

A1 Depreciate the increase to equipment over 6 years, with \$3,000 for 20X1 charged to retained earnings, and \$3,000 for $20 \times 2$ charged to operating expenses.

A2 Amortize the patent over 15 years, with \$4,000 for 20X1 charged to retained earnings, and $\$ 4,000$ for $20 \times 2$ charged to operating expenses.

BI Eliminate the $\$ 8,000$ of gross profit in the beginning inventory.

IS Eliminate the entire intercompany sales of $\$ 75,000$.
EI Eliminate the $\$ 6,000$ of gross profit in the ending inventory.

F1 Eliminate the $\$ 12,000$ gain on sale of equipment against retained earnings of Proud and Slattery, restore the asset to its original cost, and restore the $\$ 20,000$ of accumulated depreciation written off upon transfer.

F2 Eliminate the $\$ 3,000$ of excess depreciation for $20 \times 2$ on the transferred equipment.

T Record the provision for income tax, calculated as follows:

| Consolidated income before tax | \$198, 000 |
| :---: | :---: |
| Multiply by corporate tax rate | 30\% |
| Tax liability. | \$ 59,400 |

Consolidated Net Income:
To Noncontrolling Interest: $80,000+3,000=83,000-(.3 x$ $83,000)=58,100 \times .1=\$ 5,810$

To Controlling Interest: $120,000+8,000-6,000-34,500+(.9 x$ $58,100)-3,000-4,000=\$ 132,790$

Taxes on Slattery are $.3 \times 83,000$ or $\$ 24,900$.
$\$ 59,400-\$ 24,900=\$ 34,500$ taxes on consolidated income.

DIF: D OBJ: 3
13. On January 1, 20X1, Proud Company purchased 90\% of the common stock of Slattery Company for $\$ 573,000$, in a taxable combination. On this date Slattery had total owners' equity of $\$ 550,000$.

On January 1, 20X1, the only tangible asset of Slattery which was undervalued was equipment, which was worth $\$ 20,000$ more than book value. The equipment has a remaining life of 6 years and is depreciated using the straight-line method. The excess purchase price, if any, is attributed to a patent to be amortized over 15 years.

During 20X1 and 20X2, Proud has appropriately accounted for its investment in Slattery using the cost method.

On January 1, 20X2, Slattery held merchandise acquired from Proud for $\$ 20,000$. During 20X2, Proud sold merchandise to Slattery for $\$ 75,000$, of which \$15,000 is held by Slattery on December 31, 20X2. Proud's usual gross profit on affiliated sales is $40 \%$.

On December 31, 20X1, Slattery sold to Proud some equipment with a cost of $\$ 40,000$ and a book value of $\$ 20,000$. The sales price was $\$ 32,000$. Proud is depreciating the equipment over a 4-year life, assuming no salvage value and using the straight-line method.

Proud and Slattery qualify as an affiliated group for tax purposes and thus will file a consolidated tax return. Assume a $30 \%$ corporate income tax rate.

Required:
Complete the Figure 6-8 worksheet for consolidated financial statements for the year ended December 31, 20X2.

ANS:
For the worksheet solution, please refer to Answer 6-8.
Eliminations and Adjustments:

CV Convert to the simple equity method as of January 1, 20X1 (90\% of $\$ 50,000$ increase in retained earnings from January 1, 20X1 to January 1, 20X2).

CY Eliminate the current-year dividend income of Proud against dividends declared by Slattery.

EL Eliminate $90 \%$ of Slattery Company equity balances at the beginning of the year against the investment account.

D Distribute the $\$ 78,000$ excess of cost over book value as follows: \$18,000 to accumulated depreciation on equipment ( $90 \%$ of $\$ 20,000$ undervaluation) and $\$ 60,000$ to the patent.

A1 Depreciate the increase to equipment over 6 years, with \$3,000 for 20X1 charged to retained earnings, and \$3,000 for $20 \times 2$ charged to operating expenses.

A2 Amortize the patent over 15 years, with \$4,000 for 20X1 charged to retained earnings, and $\$ 4,000$ for $20 \times 2$ charged to operating expenses.

BI Eliminate the $\$ 8,000$ of gross profit in the beginning inventory.

IS Eliminate the entire intercompany sales of $\$ 75,000$.
EI Eliminate the $\$ 6,000$ of gross profit in the ending inventory.

F1 Eliminate the \$12,000 gain on sale of equipment against retained earnings of Proud and Slattery, restore the asset to its original cost, and restore the $\$ 20,000$ of accumulated depreciation written off upon transfer.

F2 Eliminate the $\$ 3,000$ of excess depreciation for $20 \times 2$ on the transferred equipment.

T Record the provision for income tax, calculated as follows:

| Consolidated income before tax..................... | $\$ 198,000$ |
| :--- | :--- |
| Multiply by corporate tax rate................... | $30 \%$ |
| Tax liability...................................... | $\$ 59,400$ |

Consolidated Net Income:

To Noncontrolling Interest: $80,000+3,000=83,000-(.3 x$ $83,000)=58,100 \times .1=\$ 5,810$

To Controlling Interest: $120,000+8,000-6,000-34,500+(.9 x$ 58,100) - 3,000-4,000 = \$132,790

Taxes on Slattery are $.3 \times 83,000$ or $\$ 24,900$. $\$ 59,400-\$ 24,900=\$ 34,500$ taxes on consolidated income.

DIF: D OBJ: 3
14. On January 1, 20X1, Parent Company purchased $90 \%$ of the common stock of Subsidiary Company for $\$ 562,000$. On this date Subsidiary had total owner's equity of $\$ 550,000$, including retained earning of $\$ 250,000$.

On January 1, 20X1, the only tangible asset of Subsidiary that was undervalued was building, which was worth $\$ 30,00$ more than book value. The building has a remaining life of 9 years and is depreciated using the straight-line method. Any excess from the purchase is attributed to goodwill.

During 20X1 and 20X2, Parent has appropriately accounted for its investment in Subsidiary using the simple equity method.

On January 1, 20X2, Parent held merchandise acquired from Subsidiary for \$15,000. During 20X2, Subsidiary sold merchandise to Parent for \$80,000, of which \$20,000 is held by Parent on December 31, 20X2. Subsidiary's usual gross profit on affiliated sales is 40\%.

On December 31, 20X1, Parent sold some equipment to Subsidiary with a cost of $\$ 50,000$, and a book value of $\$ 25,000$. The sales price was $\$ 40,000$. Subsidiary is depreciating the equipment over 3-year life, assuming no salvage value and using the straight-line method.

Parent and Subsidiary qualify as an affiliated group for tax purposes and thus will file a consolidated tax return. Assume a 30\% corporate income tax rate.

Required:
Complete the Figure 6-9 vertical worksheet for consolidated financial statements for the year ended December 31, 20X2.

ANS:
For the worksheet solution, please refer to Answer 6-9.
Eliminations and Adjustments:
CV Convert to simple equity method as of January 1, 20X2.
CY Eliminate the current-year dividend income of Parent against dividends declared by Subsidiary.

EL Eliminate $90 \%$ of the Subsidiary Company equity balances at the beginning of the year against the investment account.

D Distribute the $\$ 67,000$ excess of cost over book value as follows: \$27,000 to building (90\% of \$30,000 undervaluation) and \$40,000 to goodwill.

A Depreciate the increase to building over 9 years, with \$3,000 for 20X1 charged to retained earnings, and \$3,000 for 20X2 charged to operating expenses.

BI Eliminate the $\$ 6,000$ of gross profit in the beginning inventory.

IS Eliminate the entire intercompany sales of $\$ 80,000$.
EI Eliminate the $\$ 8,000$ of gross profit in the ending inventory.

F1 Eliminate the $\$ 15,000$ gain on sale of equipment against retained earnings of Parent, restore the asset to its original cost, and restore the $\$ 25,000$ of accumulated depreciation written off upon transfer.

F2 Eliminate the $\$ 5,000$ of excess depreciation for $20 \times 2$ on the transferred equipment.

T Record the provision for income tax, calculated as follows:

```
Consolidated taxable income................... $200,000
Multiple by corporate tax rate................. 30% 
Tax liability.................................. $ 60,000
========
```

Consolidated Net Income:
To Noncontrolling Interest: $\quad 80,000+6,000-8,000=78,000-(30 \%$ $x$ 78,000)=54,600 x 10\% = \$5,460

To Controlling Interest: $120,000+5,000-36,600+(90 \% \times 54,600)$

- 3,000 = \$134,540

Taxes on Subsidiary are $30 \% \times 78,000$ or $\$ 23,400 ;$ \$600,000 - $\$ 23,400=$ $\$ 36,600$ taxes on consolidated income.

DIF: D
OBJ: 3
15. On January 1, 20X1, Parent Company acquired $70 \%$ of the common stock of Subsidiary Company for $\$ 340,400$, in a taxable combination. On this date, Subsidiary had total owners' equity of $\$ 422,000$, including retained earnings of $\$ 222,000$. Any excess of cost over book value is attributable to a patent, which is to be amortized over 15 years.

During 20X1 and 20X2, Subsidiary Company reported the following information:

|  |  | 20X1 | 20X2 |
| :--- | :--- | ---: | ---: |
| Net income before taxes...................... | $\$ 40,000$ | $\$ 80,000$ |  |
| Dividends............................... | 0 | 30,000 |  |

During 20X1 and 20X2, Parent has appropriately accounted for its investment in Subsidiary using the simple equity method, including income tax effects.

On January 1, 20X2, Parent held merchandise acquired from Subsidiary for \$10,000. During 20X2, Subsidiary sold merchandise to Parent for $\$ 60,000$, of which \$20,000 is held by Parent on December 31, 20X2. Subsidiary's usual gross profit on affiliated sales is 40\%.

Parent and Subsidiary do not qualify as an affiliated group for tax purposes and thus will file separate tax returns. Assume a $30 \%$ corporate tax rate and an 80\% dividends-received deduction.

Required:
Complete Figure 6-10 the worksheet for consolidated financial statements for the year ended December 31, 20X2. Round all computations to the nearest dollar.

ANS:
For the worksheet solution, please refer to Answer 6-10.
Eliminations and Adjustments:
CY Eliminate the current-year entries made in the investment account and in the subsidiary income account.

EL Eliminate 70\% of the Subsidiary Company equity balances at the beginning of the year against the investment account.

D Allocate the $\$ 45,000$ excess of cost over book value to the patent.

A Amortize the patent over 15 years, with $\$ 3,000$ for 20x1 charged to retained earnings, and $\$ 3,000$ for 20X2 to operating expenses.

BI Eliminate the $\$ 4,000$ of gross profit in the beginning inventory.

IS Eliminate the entire intercompany sales of $\$ 80,000$.
EI Eliminate the $\$ 8,000$ of gross profit in the ending inventory.

T Adjust for the tax effects of the patent amortization and intercompany profit eliminations as follows:

Dr.


NOTE:
(a) Adjustment (A), for amortization of the patent, was not recognized in Parent's records. Parent's beginning retained earnings and Provision for Income Taxes both must be decreased by $.3 \times \$ 3,000$ or $\$ 900$.
(b) Adjustment (BI), for intercompany gross profit in beginning inventory, credits cost of goods sold, and thus increases 19X2 income by \$4,000. Subsidiary's Provision for Income Taxes thus must be increased by $.3 \times 4,000$, or $\$ 1,200$, split $70 \%$ and $30 \%$ between controlling and NCI.
(c) Parent's share of Subsidiary's 19X2 income is increased by $.7 \times(4,000-1,200)$ or $\$ 1,960$. Parent's tax provision on its equity interest must thus be increased by $20 \% \times 30 \% \times$ \$1,960 or \$118.
(d) Adjustment (EI), for intercompany gross profit in ending inventory, debits cost of goods sold, and thus decreases 19X2 income by \$8,000. Subsidiary's Provision for Income Taxes thus must be decreased by $.3 \times 8,000$, or $\$ 2,400$, split $70 \%$ and $30 \%$ between controlling and NCI.
(e) Parent's share of Subsidiary's 19X2 income is decreased by $.7 \times(8,000-2,400)$ or $\$ 3,920$. Parent's tax provision on its equity interest must thus be decreased by $20 \% \times 30 \% \times$ $\$ 3,920$ or $\$ 235$.

Consolidated Net Income:
To Noncontrolling Interest: $80,000+4,000-8,000=76,000-.(3 x$

$$
76,000)=53,200 \times .3=\$ 15,960
$$

To Controlling Interest: (100,000 - [32,352 + 118 - 235]) + (.7 x $53,200)-(3,000-900)=\$ 102,905$

DIF: D OBJ: 4
16. On January 1, 20X1, Parent Company acquired $70 \%$ of the common stock of Subsidiary Company for $\$ 340,400$, in a taxable combination. On this date, Subsidiary had total owners' equity of $\$ 422,000$, including retained earnings of \$222,000. Any excess of cost over book value is attributable to a patent, which is to be amortized over 15 years.

During 20X1 and 20X2, Subsidiary Company reported the following information:

|  | 20X1 | 20X2 |
| :---: | :---: | :---: |
| Net income before taxes | \$40,000 | \$80, 000 |
| Dividends | $\bigcirc$ | 30, 000 |

During 20X1 and 20X2, Parent has appropriately accounted for its investment in Subsidiary using the simple equity method, including income tax effects.

On January 1, 20X2, Parent held merchandise acquired from Subsidiary for \$10,000. During 20X2, Subsidiary sold merchandise to Parent for $\$ 60,000$, of which \$20,000 is held by Parent on December 31, 20X2. Subsidiary's usual gross profit on affiliated sales is 40\%.

On December 31, 20X1, Parent sold some equipment to Subsidiary with a cost of $\$ 40,000$ and a book value of $\$ 18,000$. The sales price was \$30,000. Subsidiary is depreciating the equipment over a 3-year life, assuming no salvage value and using the straight-line method.

Parent and Subsidiary do not qualify as an affiliated group for tax purposes and thus will file separate tax returns. Assume a $30 \%$ corporate tax rate and an $80 \%$ dividends-received deduction.

Required:
Complete the Figure 6-11 worksheet for consolidated financial statements for the year ended December 31, 20X2. Round all computations to the nearest dollar.

ANS:

For the worksheet solution, please refer to Answer 6-11.
Eliminations and Adjustments:
CY Eliminate the current-year entries made in the investment account and in the subsidiary income account.

EL Eliminate 70\% of the Subsidiary Company equity balances at the beginning of the year against the investment account.

D Allocate the $\$ 45,000$ excess of cost over book value to the patent.

A Amortize the patent over 15 years, with \$3,000 for 20X1 charged to retained earnings, and \$3,000 for 20X2 to operating expenses.

BI Eliminate the $\$ 4,000$ of gross profit in the beginning inventory.

IS Eliminate the entire intercompany sales of $\$ 80,000$.
EI Eliminate the $\$ 8,000$ of gross profit in the ending inventory.

F1 Eliminate the $\$ 12,000$ gain on sale of equipment against retained earnings of Parent, restore the asset to its original cost, and restore the $\$ 22,000$ of accumulated depreciation written off upon transfer.

F2 Eliminate the $\$ 4,000$ of excess depreciation for $20 \times 2$ on the transferred equipment.

T Adjust for the tax effects of the patent amortization and intercompany profit eliminations as follows:

Dr.

| (Cr.) | Retained Earnings |  | Provision for | Income Taxes | Deferred Tax Asset/Liability |
| :---: | :---: | :---: | :---: | :---: | :---: |
| See Note | Parent | ubsidiary | 70\% Cont. Int. | 30\% Min. Int. |  |
| (a) | \$ (900) |  | \$ (900) |  | \$1,800 |
| (b) | (840) | \$(360) | 840 | \$ 360 |  |
| (c) | (118) |  | 118 |  |  |
| (d) |  |  | $(1,680)$ | (720) | 2,400 |
| (e) |  |  | (235) |  | 235 |
| (f) | $(3,600)$ |  | 1,200 |  | 2,400 |
|  | \$(5,458) | \$(360) | \$ (657) | \$(360) | \$6,835 |

NOTE:
(a) Adjustment (A), for amortization of patent, was not recognized in Parent's records. Parent's beginning retained earnings is increased and Provision for Income Taxes must be decreased by $.3 \times \$ 3,000$ or $\$ 900$.
(b) Adjustment (BI), for intercompany gross profit in beginning inventory, credits cost of goods sold, and thus increases 20X2 income by \$4,000. Subsidiary's Provision for Income Taxes thus must be increased by $.3 \times 4,000$ or $\$ 1,200$, split $70 \%$ and $30 \%$ between controlling and NCI.
(c) Parent's share of Subsidiary's 20X2 income is increased by $.7 \times(4,000-1,200)$ or $\$ 1,960$. Parent's tax provision on its equity interest must thus be increased by $20 \%$ x $30 \%$ x \$1,960 or \$118.
(d) Adjustment (EI), for intercompany gross profit in ending inventory, debits cost of goods sold, and thus decreases 20X2 income by \$8,000. Subsidiary's Provision for Income Taxes thus must be decreased by $.3 \times(8,000)$ or $\$ 2,400$, split $70 \%$ and $30 \%$ between controlling and NCI.
(e) Parent's share of Subsidiary's 20X2 income is decreased by $.7 \times(8,000-2,400)$ or $\$ 3,920$. Parent's tax provision on its equity interest must thus be decreased by $20 \% \times 30 \% \times$ $\$ 3,920$ or $\$ 235$.
(f) Adjustments (F1) and (F2), for Parent's intercompany gain on sale of equipment, recognizes $\$ 4,000$ of the gain and thus increases Parent's provision for tax by $\$ 1,200$. The remaining \$8,000 of unrealized gain requires a deferred tax asset of \$2,400.

Consolidated Net Income:
To Noncontrolling Interest: $80,000+4,000-8,000=76,000-$. $(3 x$ $76,000)=53,200 \times .3=\$ 15,960$

To Controlling Interest: (100,000-[32,352 + 118-235]) + (4,000

$$
-1,200)+(.7 \times 53,200)-(3,000-900)
$$

$$
=\$ 105,705
$$

DIF: D OBJ: 4
17. On January 1, 20X1, Parent Company acquired $70 \%$ of the common stock of Subsidiary Company for $\$ 340,400$, in a taxable combination. On this date, Subsidiary had total owners' equity of $\$ 422,000$, including retained earnings of $\$ 222,000$. Any excess of cost over book value is attributable to a patent, which is to be amortized over 15 years.

During 20X1 and 20X2, Subsidiary Company reported the following information:

|  |  |
| :--- | :--- |
| Net income before taxes......................... | $\frac{20 X 1}{\$ 40,000}$ |
| Dividends................................... | 20X2 |
| D80,000 |  |
| 30,000 |  |

During 20X1 and 20X2, Parent has appropriately accounted for its investment in Subsidiary using the cost method, including income tax effects.

On January 1, 20X2, Parent held merchandise acquired from Subsidiary for \$10,000. During 20X2, Subsidiary sold merchandise to Parent for \$60,000, of which \$20,000 is held by Parent on December 31, 20X2. Subsidiary's usual gross profit on affiliated sales is 40\%.

On December 31, 20X1, Parent sold some equipment to Subsidiary with a cost of $\$ 40,000$ and a book value of $\$ 18,000$. The sales price was \$30,000. Subsidiary is depreciating the equipment over a 3-year life, assuming no salvage value and using the straight-line method.

Parent and Subsidiary do not qualify as an affiliated group for tax purposes and thus will file separate tax returns. Assume a $30 \%$ corporate tax rate and an $80 \%$ dividends-received deduction.

Required:
Complete the Figure 6-12 worksheet for consolidated financial statements for the year ended December 31, 20X2. Round all computations to the nearest dollar.

ANS:
For the worksheet solution, please refer to Answer 6-12.
Eliminations and Adjustments:
CV Convert to the simple equity method as of January 1, 20X2: $70 \%$ of $\$ 28,000$ increase in retained earnings from January 1, 19X1 to January 1, 20X2).

DTL Adjust for the secondary income tax on the undistributed earnings of subsidiary not recognized under the cost method. Debit retained earnings of Parent for $20 \%$ x $30 \%$ x $\$ 19,600$ equity conversion or $\$ 1,176$. Subsidiary's undistributed earnings for 20X2 are $\$ 26,000$ ( $\$ 56,000$ after tax income less $\$ 30,000$ dividends). Of this, $70 \%$ or $\$ 18,200$ would accrue to Parent and thus $20 \% \times 30 \% \times 218,200$ or $\$ 1,092$ should be debited to provision for income taxes. The total \$2,268 should be credited to Deferred Tax Asset/Liability.

CY Eliminate the current-year dividend income of Parent against dividends declared by Subsidiary.

EL Eliminate $70 \%$ of the Subsidiary Company equity balances at the beginning of the year against the investment account.

D Distribute the $\$ 45,000$ excess of cost over book value to a patent.

A Amortize the patent over 15 years, with \$3,000 for 20X1 charged to retained earnings, and \$3,000 for 20X2 to operating expenses.

BI Eliminate the $\$ 4,000$ of gross profit in the beginning inventory.

IS Eliminate the entire intercompany sales of $\$ 80,000$.
EI Eliminate the $\$ 8,000$ of gross profit in the ending inventory.

F1 Eliminate the $\$ 12,000$ gain on sale of equipment against retained earnings of Parent, restore the asset to its original cost, and restore the $\$ 22,000$ of accumulated depreciation written off upon transfer.

F2 Eliminate the $\$ 4,000$ of excess depreciation for $20 \times 2$ on the transferred equipment.

T Adjust for the tax effects of the patent amortization and intercompany profit eliminations as follows:

Dr.

| (Cr.) | Retained Earnings |  | Provision for | Income Taxes | Deferred Tax Asset/Liability |
| :---: | :---: | :---: | :---: | :---: | :---: |
| See Note | Parent | ubsidiary | 70\% Cont. Int. | 30\% Min. Int. |  |
| (a) | \$ (900) |  | \$ (900) |  | \$1,800 |
| (b) | (840) | \$(360) | 840 | \$ 360 |  |
| (c) | (118) |  | 118 |  |  |
| (d) |  |  | $(1,680)$ | (720) | 2,400 |
| (e) |  |  | (235) |  | 235 |
| (f) | $(3,600)$ |  | 1,200 |  | 2,400 |
|  | \$(5,458) | \$(360) | \$ (657) | \$(360) | \$6,835 |

NOTE:
(a) Adjustment (A) for amortization of the patent was not recognized in Parent's records. Parent's beginning retained earnings and Provision for Income Taxes both must be decreased by $.3 \times \$ 3,000$ or $\$ 900$.
(b) Adjustment (BI), for intercompany gross profit in beginning inventory, credits cost of goods sold, and thus increases 20X2 income by \$4,000. Subsidiary's Provision for Income Taxes thus must be increased by $.3 \times 4,000$ or $\$ 1,200$, split $70 \%$ and $30 \%$ between controlling and NCI.
(c) Parent's share of Subsidiary's 20x2 income is increased by $.7 \times(4,000-1,200)$ or $\$ 1,960$. Parent's tax provision on its equity interest must thus be increased by $20 \%$ x $30 \%$ x \$1,960 or \$118.
(d) Adjustment (EI) for intercompany gross profit in ending inventory debits cost of goods sold, and thus decreases 20X2 income by $\$ 8,000$. Subsidiary's Provision for Income Taxes thus must be decreased by $.3 \times(8,000)$ or $\$ 2,400$, split $70 \%$ and $30 \%$ between controlling and NCI.
(e) Parent's share of Subsidiary's 20X2 income is decreased by $.7 \times(8,000-2,400)$ or $\$ 3,920$. Parent's on its equity interest must thus be decreased by $20 \%$ x $30 \%$ x $\$ 3,920$ or \$235.
(f) Adjustments (F1) and (F2) for Parent's intercompany gain on sale of equipment recognizes $\$ 4,000$ of the gain and thus increases Parent's provision for tax by $\$ 1,200$. The remaining \$8,000 of unrealized gain requires a deferred tax asset of \$2,400.

Consolidated Net Income:
To Noncontrolling Interest: 80,000 + 4,000-8,000 = 76,000-(.3x $76,000)=53,200 \times .3=\$ 15,960$

To Controlling Interest: (100,000 - [32,352 + $118-235])+(4,000-$ $1,200)+(.7 \times 53,200)-(3,000-900)=$ \$105,705

DIF: D OBJ: 4
18. On January 1, 20X6, Company P purchased a 15\% interest in Company S. On July 1, 20X9, Company P purchased an additional $20 \%$ interest in Company S. Both purchases were at a cost in excess of underlying book value. Company S paid dividends each December from 20X6 to 20X9.

Required:
a. How would Company $P$ record its investment in Company $S$ in its financial statements originally issued for 20X6 to 20X8?
b. Does a $35 \%$ ownership interest absolutely require the use of the equity method?
c. How will Company $P$ account for its investment in Company $S$ in its 20X9 financial statements?
d. How will Company $P$ account for its investment in Company $S$ in the 20X6 to 20X9 comparative statements published in March 20X0?

ANS:
a. The investment would be accounted for under the cost method. Only the dividends received would be recorded as income.
b. Ownership of $20 \%$ or more of the voting common shares of another firm presumes that the sophisticated equity method should be used. The investor may, however, assume the burden of showing that there is not effective influence. This could be the case if the investor is in a regulated industry or there is a powerful NCI.
c. The $20 \%$ investment will be accounted for under the sophisticated equity method for the last 6 months of the year. The sophisticated equity method will also be used for the $15 \%$ interest for the entire year. The prior ownership interest is brought to its sophisticated equity balance retroactively.
d. The old 15\% ownership interest will be accounted for retroactively under the sophisticated equity method. Thus, the 15\% interest will be accounted for under the sophisticated equity method for all periods, 20X1 to 20X4.

```
DIF: E OBJ: 5
```

19. Company $P$ purchased a $30 \%$ interest in Company $S$ for $\$ 120,000$ on January 1, 20X7, when Company $S$ had the following stockholders' equity:

Common stock (\$10 par)
Paid-in capital in excess of par. 200, 000
Retained earnings (deficit)
Total (20,000)
\$280,000
=======

Any excess cost was due to equipment that is being depreciated over 5 years using straight-line depreciation.

Since the investment, Company $P$ has consistently sold goods to Company S to realize a $30 \%$ gross profit. Such sales totaled \$50,000 during 20X9. Company $S$ had $\$ 10,000$ of such goods in its beginning inventory and \$40,000 in its ending inventory.

On January 1, 20X9, Company S sold a machine with a book value of $\$ 15,000$ to Company $P$ for $\$ 30,000$. The machine has a 5 -year life and is being depreciated on a straight-line basis.

Company S reported a net income of $\$ 75,000$ before taxes for 20X9. Both firms are subject to a $30 \%$ corporate tax rate. Company $S$ paid no dividends in 20X9. An 80\% dividend earned exclusion rate applies.

## Required:

Prepare all entries caused by Company P's investment in Company S for 20X3 (including tax ramifications). Assume that Company P has recorded the tax on its internally generated income. Company $P$ has properly recorded the investment in previous periods. Assume that sufficient previously recorded tax liability exists to offset any deferred tax expense.

ANS:
Determination and Distribution of Excess Schedule:
Price paid...................................................... \$120,000
Less interest acquired, \$280,000 x .3................. 84,000
Excess cost attributable to equipment
(5-year life, \$7,200 per year)
\$ 36, 000
========
Company S Company Income Distribution

| ```Deferred gain on machine....... $15,000``` | Internally generated <br> net income................. \$75,000 <br> Realized gain on machine.... 3,000 |
| :---: | :---: |
|  | Adjusted income............. \$63,000 |
|  | Tax, 30\%................... 18 , 900 |
|  | After-tax income........... \$44,100 |
|  | Company's ownership interest $30 \%$ |
|  | Share of income............ \$13,230 |
|  | Less depreciation of equipment $(7,200)$ |
|  | Company P's share of income. \$ 6,030 |



ANS:
For the worksheet solution, please refer to Answer 6-13.
Determination and Distribution of Excess Schedule:

| Price paid for Investment |
| :--- |
| Interest Acquired: |
| Common stock |
| Retained Earnings |


| Total |
| :--- | :--- | :--- |


| Interest Acquired: |
| :--- | :--- |
| Goodwill |

Income Distribution Schedules:

| Selma |  |  |
| :---: | :---: | :---: |
|  | Reported Inc. | \$42, 000 |
|  | Realized gain (net) | 1,400 |
|  | Adjusted Income | 43,400 |
|  | NCI share | 0.20 |
|  | NCI. | \$ 8,680 |

Patro

| End Inv. Profit (net) $\$ 3,500$ |  |  |  |
| :--- | :--- | :--- | :--- |
|  | Patro | Int. Generated N.I. | $\$ 70,000$ |
|  | Adjusted income | $\$ 66,500$ |  |
|  | $80 \%$ Sub income | 34,720 |  |
|  | Tax on Sub Income | $(2,083)$ |  |
|  | Controlling Share | $\$ 99,137$ |  |
|  |  | $======$ |  |

```
Eliminations:
    CY Eliminate subsidiary income and 80% of subsidiary dividends
        declared
    EL Eliminate 80% of subsidiary equity as of Jan. 1
    D Distribute excess to goodwill
    F1 Eliminate $10,000 gain less $2,000 realized in 19X5
    F2 Adjust current year depreciation for realized gain
    IS Eliminate intercompany sales
    EI Defer ending inventory profit, 25% x 20,000
    T1 Adjust for deferred tax asset on January 1:
\begin{tabular}{|c|c|c|c|}
\hline Adjustment item & Patro & Selma & Total \\
\hline Gain on asset & \$1,920 & \$480 & \$2,400 \\
\hline Second tax & 269 & & 269 \\
\hline Total & \$2,189 & \$480 & \$2,669 \\
\hline
\end{tabular}
T2 Adjust for increase (decrease) in deferred tax asset:
    Adjustment item Patro Selma Total
    Gain on asset $(480) $(120) $(600)
    Second tax
        (67)
        End. Inventory
        Total
\begin{tabular}{ll}
1,500 \\
\(\$ 953\) & \(\$(120)\)
\end{tabular}\(\frac{1,500}{\$ 833}\)
DIF: D
OBJ: 4
```

21. Parent Company purchased a 60\% interest in the Subsidiary Company on January 1, $20 \times 5$ for $\$ 481,000$. Any excess cost was attributed to patent, which has a 20-year life.

Equity balances for the Subsidiary Company on January 1, $20 \times 5$ were as follows:
Common stock. .................................................. $\$ 400,000$

Total equity........................................ . $\$$..
The Parent Company leased equipment to the Subsidiary Company on January 1, 20X6 under the following terms:

- Payment for 5 years of \$20,000, payable each January 1, starting January 1, 20X6.
- Guaranteed residual value of $\$ 10,000$ at the end of the lease term, December 31, $20 Y 0$.
- Annual implicit interest rate is $12 \%$.
- The sales profit is $\$ 10,000$.

The equipment has a 5-year life and is depreciated on a straight-line basis.

The Subsidiary Company sells merchandise to the Parent Company at a gross profit rate of $40 \%$. Intercompany sales during $20 \times 7$ were $\$ 80,000$. The Parent Company had $\$ 10,000$ of Subsidiary Company goods in its beginning inventory and $\$ 20,000$ of Subsidiary goods in its ending inventory. The inventory values reflect the intercompany sales price

The firms do not meet the criteria to be taxed as a consolidated group, and thus are subject to separate (double) taxation. The parent company receives and $80 \%$ dividend exclusion. The tax rate applicable to both companies is $30 \%$.

The trial balances of Parent Company and Subsidiary Company are inserted on the following worksheet which is dated December 31, $20 \times 7$.

Complete the Figure 6-14 worksheet. Include:
a. A determination and distribution of excess schedule
b. Keyed elimination entries with short explanations
c. Income distribution schedules to support the allocation of consolidated net income

ANS:


Income Distribution Schedules:

| End Inv. Profit (net) \$5,600 \| Reported |  |  |  |
| :---: | :---: | :---: | :---: |
|  |  | Beg. Inv. Profit (net) | 2,800 |
|  |  | Adjusted Income.... | 18,200 |
|  |  | NCI share. | 0.40 |
|  |  | NCI. | \$ 7,280 |



Eliminations:
CY Eliminate subsidiary income and 60\% of subsidiary dividends declared

EL Eliminate 60\% of subsidiary equity as of Jan. 1
D Distribute excess to goodwill
CL1 Eliminate Intercompany lease based on the following amortization schedule at 12\% interest

| Date | Payment | Interest | Principal | Balance |
| :---: | :---: | :---: | :---: | :---: |
| 1/1/X6 | \$20,000 |  | \$(20,000) | \$66,421 |
| 1/1/X7 | 20,000 | \$7,971 | $(12,029)$ | 54,392 |
| 1/1/X8 | 20,000 | 6,527 | $(13,473)$ | 40,919 |
| 1/1/X9 | 20, 000 | 4,910 | $(15,090)$ | 25,829 |
| 1/1/Y0 | 20,000 | 3,099 | $(16,901)$ | 8,929 |
| 12/31/Y0 | 10,000 | 1, 071 | $(8,929)$ | 0 |

CL2 Eliminate intercompany interest on lease
F1 Eliminate gain on leased asset and adjust retained earnings as of Jan. 1

F2 Adjust current year depreciation for realized gain
IS Eliminate intercompany sales
BI Defer beginning inventory gain, $40 \% \times 10,000$, adjust retained earnings

EI Defer ending inventory profit, $40 \% \times 20,000$
T1 Adjust for deferred tax asset on January 1:

| Adjustment item | Parent | Sub. | Total |
| :---: | :---: | :---: | :---: |
| Gain on asset | \$2,400 |  | \$2,400 |
| Beg. inventory | 720 | \$480 | 1,200 |
| Second tax | 101 |  | 101 |
| Total | \$3,221 | $\overline{\$ 480}$ | \$3,701 |

T2 Adjust for increase (decrease) in deferred tax asset:

| Adjustment item | Parent | Sub. | Total |
| :---: | :---: | :---: | :---: |
| Gain on asset | \$ (600) |  | (600) |
| Beg. inventory | (720) | \$(480) | \$ (1, 200) |
| Second tax | (101) |  | (101) |
| End. Inventory | 1,440 | 960 | 2,400 |
| Second tax | 202 |  | 202 |
| Total | \$ 221 | \$ 480 | \$ 701 |

DIF: D
OBJ: 4
[[Insert FIGURE 6-1 from Excel spreadsheet]]
[[Insert ANSWER 6-1 from Excel spreadsheet]]
[[Insert FIGURE 6-2 from Excel spreadsheet]]
[[Insert ANSWER 6-2 from Excel spreadsheet]]
[[Insert FIGURE 6-3 from Excel spreadsheet]]
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[[Insert ANSWER 6-13 from Excel spreadsheet]]
[[Insert FIGURE 6-14 from Excel spreadsheet]]
[[Insert ANSWER 6-14 from Excel spreadsheet]]

## Chapter 7 - Special Issues In Accounting for an Investment in a Subsidiary

## MULTIPLE CHOICE

1. A new subsidiary is being formed. The parent company purchased $70 \%$ of the shares for $\$ 20$ per share. The remaining shares were sold to a variety of outside interests for an average of $\$ 22$ per share. The consolidated statements will show
a. an extraordinary gain.
b. an extraordinary loss.
c. only cash and related equity.
d. goodwill.

ANS: A DIF: E OBJ: 1
2. A new subsidiary is being formed. The parent company purchased $70 \%$ of the shares for $\$ 20$ per share. The remaining shares were sold to a variety of outside interests for an average of $\$ 18$ per share. The consolidated statements will show
a. an extraordinary gain.
b. an extraordinary loss.
c. only cash and related equity.
d. goodwill.

ANS: D DIF: E OBJ: 1
3. When a parent acquires a controlling interest in a subsidiary as a result of a series of purchases of subsidiary stock, current practice in preparing statements follows the
a. economic entity concept.
b. parent company concept.
c. piecemeal acquisition concept.
d. proportionate consolidation concept.

ANS: B DIF: E OBJ: 2
4. When control of a subsidiary is achieved with the initial investment in subsidiary stock, when subsequent block of subsidiary's stock is purchased
a. the parent must change from the cost method to the equity method.
b. the parent must change from the equity method to the cost method.
c. no change in accounting methods is required.
d. none of the above.

ANS: C
DIF: E
OBJ: 2
5. Pine Company purchased a $55 \%$ interest in the Sent Company on January 1, 20X1 for $\$ 350,000$. On that date, the stockholders' equity of Sent Company was \$450,000. Any excess cost was attributable to goodwill. Pine purchased another 20\% interest on January 1, 20X4 for \$200,000. On January 1, 20X4, Sent Company's stockholders' equity was \$700,000, the entire increase due to retained earnings. Any excess cost was again attributed to goodwill. The goodwill balance on the December 31, 20X4, balance sheet is $\qquad$ .
a. $\$ 102,500$
b. \$60, 000
c. \$0
d. $\$ 162,500$

ANS: D DIF: M OBJ: 2
6. Pine Company purchased a $55 \%$ interest in the Sent Company on January 1, 20X1 for $\$ 350,000$. On that date, the stockholders' equity of Sent Company was \$450,000. Any excess cost was attributable to the fair value increase of equipment with a 10-year life. Pine purchased another 20\% interest on January 1, 20X5 for \$200,000. On January 1, 20X5, Sent Company's stockholders' equity was $\$ 700,000$, the entire increase due to retained earnings. Any excess cost was again attributed to the fair value increase of equipment with a 6-year life. The additional expense on the December 31, 20X5, income statement is $\qquad$ .
a. \$10, 250
b. \$20,250
c. \$10,000
d. $\$ 16,250$

ANS: B
DIF: M
OBJ: 2
7. Prior to January 1, 20X4, Parts Inc. owned a $60 \%$ controlling interest in Sorter Company. On July 1, 20X4, Parts Inc. purchased an additional 20\% interest in Sorter for \$150,000. Sorter's stockholders' equity was $\$ 600,000$ on January 1, 20X4. Any excess was attributed to goodwill. On July 1, 20X4, there was intercompany inventory owned by Parts Inc. that had been purchased from Sorter. Sorter's profit on the inventory was $\$ 5,000$. Parts Inc. sold the inventory during the latter half of $20 \times 4$. Sorter's net income for 20X4 was \$60,000, earned evenly during the year. Goodwill arising from the second acquisition is $\qquad$ _.
a. \$30, 000
b. $\$ 29,500$
c. $\$ 25,000$
d. \$23,500

ANS: C
DIF: M
OBJ: 2
8. Prior to January 1, 20X4, Parts Inc. owned a $60 \%$ controlling interest in Sorter Company. On July 1, 20X4, Parts Inc. purchased an additional 20\% interest in Sorter for \$150,000. Sorter's stockholders' equity was $\$ 600,000$ on January 1, 20X4. Any excess was attributed to to the fair value increase of a building with a 20-year life. On July 1, 20x4, there was intercompany inventory owned by Parts Inc. that had been purchased from Sorter. Sorter's profit on the inventory was $\$ 5,000$. Parts Inc. sold the inventory during the latter half of 20X4. Sorter's net income for 20X4 was \$60,000, earned evenly during the year. The noncontrolling interest share of income for 20X4 is $\qquad$ —.
a. \$18,000
b. \$17,000
c. \$12,000
d. \$11, 000

ANS: C DIF: M OBJ: 2
9. When a subsequent block of an existing subsidiary's stock is purchased, the determination and distribution of excess schedule
a. is not independent of the appraisals made during previous acquisitions.
b. is completely independent of the appraisals made during previous acquisitions.
c. must take into account all previous appraisals.
d. none of the above.

ANS: B DIF: E OBJ: 2
10. When investment blocks are carried at cost, the conversion entry is based upon
a. the difference in retained earnings at the beginning of the current fiscal year and the retained earnings when the first block was acquired.
b. the difference in retained earnings at the beginning of the current fiscal year and the retained earnings when the block giving a controlling interest was acquired.
c. the difference in retained earnings at the beginning of the current fiscal year and the retained earnings of each block at its acquisition.
d. the difference in retained earnings at the beginning of the current fiscal year and the retained earnings when the last block was acquired.

ANS: C DIF: E OBJ: 2
11. Palto Inc. purchased a $10 \%$ interest in the Sauer Company for $\$ 50,000$ on January 1, 20X1. On that date, Sauer's stockholders' equity was $\$ 400,000$. Any excess would have been considered goodwill. On January 1, 20X4, Palto purchased another 60\% interest for $\$ 500,000$ when Sauer's stockholders' equity was $\$ 700,000$. Again, any excess was viewed as goodwill. The Sauer Company earned $\$ 50,000$ during $20 X 4$. The balance in the Investment in Sauer account just prior to the $60 \%$ purchase should have been $\qquad$ .
a. \$47, 000
b. \$50,000
c. $\$ 77,000$
d. \$80,000

ANS: B DIF: M OBJ: 2
12. Palto Inc. purchased a $10 \%$ interest in the Sauer Company for $\$ 50,000$ on January 1, 20X1. On that date, Sauer's stockholders' equity was $\$ 400,000$. Any excess would have been attributed to a patent with a 10year life. On January 1, 20X3, Palto purchased another 60\% interest for $\$ 500,000$ when Sauer's stockholders' equity was $\$ 700,000$. Again, any excess was attributed to the patent with an 8-year life. The Sauer Company earned $\$ 50,000$ during $20 \times 3$. The patent on the December $31,20 \times 3$, consolidated balance sheet will be $\qquad$ -
a. \$90, 000
b. $\$ 77,000$
c. \$80, 000
d. \$10, 000

ANS: B DIF: M OBJ: 2
13. Company $P$ purchased the outstanding common stock of Company $S$ as follows:

15\%, January 1, 20×1
20\%, June 1, 20X1
30\%, August 1, 20X1
35\%, September 30, 20X1
The fiscal year of both firms ends on September 30. S's stock was acquired by $P$ at book value. The controlling interest in consolidated net earnings for the fiscal year ended September 30, 20X1, would include which of the following earnings of the subsidiary?
a. 100\%, January-September 20X1
b. 15\%, January-May 20X1; 35\%, June-July 20X1; and 65\%, AugustSeptember 20X1
c. $15 \%$, January-May 20X1; 20\%, June-July 20X1; and 30\%, AugustSeptember 20X1
d. 65\%, January-September 20X1

ANS: B DIF: E OBJ: 2
14. Company P purchased the outstanding common stock of Company S as follows:

15\%, January 1, 20X1
20\%, June 1, 20X1
30\%, August 1, 20X1
35\%, September 30, 20X1
The fiscal year of both firms ends on December 31. S's stock was acquired by $P$ at book value. The controlling interest in consolidated net earnings for the fiscal year ended December 31, 20X1, would include which of the following earnings of the subsidiary?
a. 100\%, January-December 20X1
b. 15\%, January-May 20X1; 20\%, June-July 20X1; and 30\%, AugustSeptember 20X1
c. 15\%, January-May 20X1; 35\%, June-July 20X1; 65\%, August-October 20X1; and 100\%, September - December
d. 15\%, January-May 20X1; 35\%, June-July 20X1; 65\%, August-September 20X1; and 100\%, November - December

ANS: D DIF: E OBJ: 2
15. When a parent sells part of its subsidiary interest, a gain or loss is recognized if the parent
a. sells its entire investment.
b. loses control and significant influence.
c. loses control only.
d. sells any portion on its investment.

ANS: D DIF: E OBJ: 3
16. Company $P$ purchased a $55 \%$ interest in Company $S$ on January 1, 20X1, for $\$ 200,000$. At the time of the purchase, Company $S$ had the following stockholders' equity:

Common stock (\$10 par).......................... \$ 80,000
Retained earnings...................................
Total stockholders' equity..................... \$200,000
========
Any excess is attributable to equipment with a 10-year life. On January 1, 20X6, the retained earnings of Company $S$ was $\$ 175,000$. During the first 6 months of 20X6, $\$ 25,000$ was earned by Company $S$. The entire investment was sold for $\$ 300,000$ on July 1, 20X6. The gain was
a. \$(35,000)
b. \$90,000
c. $\$ 105,500$
d. $\$ 100,000$

ANS: C
DIF: M
OBJ: 3
17. Company $P$ purchased a $55 \%$ interest in Company $S$ on January 1, 20X1, for $\$ 200,000$. At the time of the purchase, Company $S$ had the following stockholders' equity:

| Common stock (\$10 par) | \$ 80,000 |
| :---: | :---: |
| Retained earnings | 120, 000 |
| Total stockholders' equity | \$200, 000 |

Any excess is attributable to equipment with a 10-year life. On January 1, 20X6, the retained earnings of Company $S$ was $\$ 175,000$. The entire investment was sold for $\$ 300,000$ on January 1, 20X6. The gain was
a. \$(20,250)
b. \$90,000
c. $\$ 114,750$
d. \$100,000

ANS: C DIF: M OBJ: 3
18. A parent company owns a $90 \%$ interest in a subsidiary at the start of the year and during the year sells a $10 \%$ interest to reduce its ownership percentage to $80 \%$. The most popular view of the transaction under current consolidations theory is that
a. it is a sale of an investment at a gain or a loss.
b. it is likened to a treasury stock transaction which may not result in a gain or a loss.
c. it is a transaction between the controlling and noncontrolling ownership interests and has no effect on consolidated income. The transaction would impact only paid-in capital.
d. the increase or decrease in equity as a result of the sale is an adjustment to donated capital.

ANS: C DIF: E OBJ: 3
19. In the year a parent sells its subsidiary investment, the results of subsidiary operations prior to the sale date are
a. typically consolidated to the point of sale.
b. typically shown on the balance sheet in the stockholders' equity section as an adjustment to retained earnings.
c. not typically reflected on any of the parent's statements.
d. not typically consolidated.

ANS: D
DIF: E
OBJ: 3
20. Patten Company purchased an $80 \%$ interest in Salty Inc. on January 1, 20X1, for $\$ 500,000$ when the stockholders' equity of Salty was $\$ 500,000$. Any excess of cost was attributed to a building with a 20 -year life. On July 1, 20X4, Patten sold part of its investment and reduced its ownership interest to 60\%. Salty earned \$62,000, evenly, during 20X4. The share of income earned by the NCI during 20X4 is $\qquad$ .
a. \$10, 000
b. \$12,400
c. $\$ 18,600$
d. \$43,400

ANS: C DIF: M OBJ: 3
21. Page Company purchased an $80 \%$ interest in the common stock of the Seed Company for $\$ 600,000$ on January 1, 20X4, when Seed Company had the following stockholders' equity:

Common stock, \$10 par............................ \$300,000
Preferred stock, 10\%, \$10 par.................... 100,000
Paid-in excess of par, common...................... 50, 000
Retained earnings.................................. 200 , 000
The preferred stock is cumulative and was 1 year in arrears on January $1,20 X 4$. Any excess of cost over book value on the common stock purchase was attributed to goodwill. The goodwill that will appear on the consolidated balance sheet prepared on January 1, 20X4, is $\qquad$ .
a. \$80, 000
b. \$88,000
c. \$160, 000
d. \$168,000

ANS: D
DIF: E
OBJ: 4
22. Page Company purchased an $80 \%$ interest in the common stock of the Seed Company for $\$ 600,000$ on January 1, 20X4, when Seed Company had the following stockholders' equity:

Common stock, $\$ 10$ par
\$300, 000
Preferred stock, 10\%, \$10 par................... 100,000
Paid-in excess of par, common.................... 50,000
Retained earnings................................. 200,000
The preferred stock is cumulative and was 2 years in arrears on January $1,20 X 4$. Any excess of cost over book value on the common stock purchase was attributed to goodwill. Seed had net income of $\$ 40,000$ during 20X4 and paid no dividends. The noncontrolling interest share of net income was $\qquad$ _.
a. \$3,200
b. \$6,400
c. \$8,000
d. \$16,000

ANS: D
DIF: M
OBJ: 4
23. Page Company purchased an $80 \%$ interest in the common stock of the Seldom Company for $\$ 600,000$ on January 1, 20X4, when Seed Company had the following stockholders' equity:

| Common stock, \$10 | \$300, 000 |
| :---: | :---: |
| Preferred stock, 10\%, \$10 par | 100,000 |
| Paid-in excess of par, common | 50,000 |
| Retained earnings | 200,000 |

The preferred stock is cumulative and was 2 years in arrears on January $1,20 X 4$. Any excess of cost over book value on the common stock purchase was attributed to goodwill. Seed had net income of $\$ 40,000$ during 20X4 and paid no dividends. The controlling interest's share of Seed's income was
a. \$24,000
b. \$23,360
c. $\$ 25,600$
d. \$32,000

ANS: A DIF: M OBJ: 4
24. Plant company owns $80 \%$ of the common stock of Surf Company. Surf Company also has outstanding preferred stock. Plant Company owned none of the preferred stock prior to January 1, 20X5. Plant Company purchased 100\% of the outstanding preferred stock on January 1, 20X5, at a price in excess of book value. The result of this transaction with regard to the consolidated statements is that
a. there will be added goodwill.
b. there will be a loss recorded in the year of the purchase.
c. the preferred stock will not appear on the balance sheet and there will be a decrease in retained earnings as a result of the purchase.
d. the investment in preferred stock will appear on the balance sheet.

ANS: C DIF: E OBJ: 4
25. Pickle Company owns $80 \%$ of the common stock of Souer Company and none of the preferred stock. Souer Company has the following stockholders' equity:

Preferred stock, cumulative, 10\%, \$100 par...... \$100,000
Common stock (\$5 par)............................... 200, 000
Paid-in capital in excess of par................ 300,000
Retained earnings.................................... . . 150 , 000

=======

The preferred stock dividends are 2 years in arrears. What is the NCI in retained earnings?
a. \$20,400
b. \$24, 000
c. \$30,000
d. \$46, 000
e. None of the above

ANS: D
DIF: M
OBJ: 4
26. Company $P$ has consistently sold merchandise for resale to its subsidiary at cost plus 25\%. There were intercompany goods in both the subsidiary's beginning and ending inventory. As a result of these sales, which of the following amounts must be adjusted for when preparing only a consolidated balance sheet?

| Sales Profit |
| ---: |
| by Co. P During |
| the Year |

a. | Yes |
| :--- |
| b. |
| c. Yes |
| d. No | No

| Beginning <br> Inventory <br> Profit | Ending <br> Inventory <br> Profit |
| :---: | :---: |
| Yes | Yes |
| No | Yes |
| No | Yes |
| No | No |

ANS: C DIF: E REF: App OBJ: A1
27. Company $P$ owns an $90 \%$ interest in Company $S$. Company $S$ has outstanding $\$ 100,000$ of $10 \%$ bonds that were sold at face value and have 6 years to maturity as of the balance sheet date. Company $P$ owns $\$ 70,000$ of the bonds and has a remaining unamortized book value of $\$ 66,000$. Company $S$ bonds will be presented on the consolidated balance sheet as
a. bonds payable, \$30,000.
b. bonds payable, \$34,000.
c. bonds payable, \$100,000.
d. bonds payable will not appear.

ANS: A DIF: E REF: App OBJ: A1
28. Saddle Corporation is an 80\%-owned subsidiary of Paso Company. On January 1, 20X1, Saddle sold Paso a machine for $\$ 50,000$. Saddle's cost was $\$ 60,000$ and the book value was $\$ 40,000$. The machine had a 5 -year remaining life at the time of the sale. A consolidated balance sheet only is being prepared on December 31, 20X3. The retained earnings of the controlling interest requires which of the following adjustments?
a. \$(10,000)
b. $\$(4,000)$
c. $\$(2,000)$
d. No adjustment needed

ANS: B DIF: M REF: App OBJ: A1

## PROBLEM

1. It is common for a parent firm to record its investment in a subsidiary under either the cost or simple equity method to expedite the elimination process. This does create some complications, however, when all or a portion of the investment is sold. Assume that in each of the following cases, the parent sells its investment midway through its fiscal year.
(1) The parent owned an $80 \%$ interest and sold all of its holdings.
(2) The parent owned an $80 \%$ interest and sold a $20 \%$ interest to reduce its ownership percentage to 60\%.
(3) The parent owned an $80 \%$ interest and sold a $60 \%$ interest to reduce its ownership percentage to 20\%.

Required:
a. For each of the above cases, comment on the procedures necessary to record the sale, where the investment is carried under simple equity, and the impact on consolidated income of the sale.
b. For each of the above cases, state the added procedures that would be necessary if the investment was recorded under the cost method.

ANS:
(a) Simple equity--A simple equity adjustment is made to record current year income to the date of sale. Amortization of excess must be made for all prior periods and the current partial period. This will bring the entire investment to its sophisticated equity balance and will adjust retained earnings for prior years' amortization, which, in the past, were made on the consolidated worksheet. The gain or loss on the sale may qualify as a discontinued operation.

Cost--This is the same as equity except that an additional adjustment is needed to convert from cost to simple equity for prior periods. An equity adjustment is also needed for the current partial period. Once the equity adjustment is made, amortization would be adjusted for as it would under the simple equity method.
(b) Simple equity--Amortization of excess adjustments for the prior and current periods are made only on the $20 \%$ investment sold. Amortization applicable to the 60\% controlling interest will still be made on the consolidated worksheet. A gain or loss on the sale of the investment will appear in the paid-in capital section of the consolidated balance sheet. The minority share of income will be $20 \%$ for the first half year and $40 \%$ for the second half year. The controlling interest will receive 80\% and 60\%, respectively.

Cost--This is the same as simple equity except that an additional adjustment is needed to convert only the $20 \%$ interest sold from cost to the simple equity method for both the prior periods and the current partial period.
(c) Simple equity--The recording adjustments are the same as those for the sale of the entire interest. The $20 \%$ investment that remains will now be accounted for under the sophisticated equity method and thus needs to be brought to this amount. The gain or loss on the sale will be shown in the "other gains and losses" section of the income statement. There will no longer be a consolidation, and the $20 \%$ interest will be listed on the balance sheet as a long-term investment.

Cost--Again, all recording adjustments are the same as those for the sale of the entire interest.

DIF: M OBJ: 3
2. A subsidiary company may have preferred stock as part of its equity structure. Further, suppose that the preferred stock is cumulative and in arrears on dividends.

Required:
a. What is the impact of the preferred stock on the excess of cost over book value on the original controlling investment in common stock?
b. What is the impact of the preferred stock on the annual distribution of income?
c. What is the theory followed in consolidated reporting when the parent purchases a portion of the subsidiary's preferred stock?

ANS:
a. That portion of retained earnings applicable to the preferred stock equal to the arrearage is subtracted from retained earnings in the determination and distribution of excess schedule to arrive at retained earnings applicable to the common stock.
b. The NCI would be awarded the preferred share of current income equal to the annual dividend requirement. The balance of income available to common shareholders would be allocated between the controlling and noncontrolling interests.
c. From a consolidated viewpoint, the shares of preferred stock purchased by the parent are treated as retired. The difference between the book value (adjusted for dividend arrearage) and the price paid is treated as an increment to paid-in excess if the shares are purchased below book value or as a reduction of previous paid-in from retirement or retained earnings if the price paid exceeds book value.

DIF: M OBJ: 4
3. Company $P$ purchased $10 \%$ of the outstanding stock of Company S. on January 1, 20x3, for $\$ 75,000$. Any excess of cost is attributable to goodwill. On January 1, 20X5, Company P acquired an additional 60\% interest in Company $S$. for $\$ 500,000$. At the time of the second purchase, equipment with a 5 -year remaining life was undervalued by $\$ 50,000$. Any remaining excess was attributable to goodwill. The following stockholders' equities existed for Company S:

|  | $\begin{gathered} \text { January } 1, \\ 20 \times 3 \\ \hline \end{gathered}$ | $\begin{gathered} \text { January } \\ 20 \times 5 \end{gathered}$ | $\begin{gathered} \text { January } 1, \\ 20 \times 6 \end{gathered}$ |
| :---: | :---: | :---: | :---: |
| Common stock. | \$ 80,000 | \$ 80,000 | \$ 80,000 |
| Paid-in capital in excess of par | 120, 000 | 120, 000 | 120, 000 |
| Retained earnings. | 300, 000 | 500, 000 | 700, 000 |

## Required:

Prepare all necessary eliminating and adjusting entries to these investments on the Figure 7-1 partial worksheet dated December 31, 20X6. Include all necessary supporting schedules.

ANS:
For the worksheet solution, please refer to Answer 7-1.
Eliminations and Adjustments

```
    CV Convert investment to equity method. (See cost-to-equity
```

        conversion schedule.)
    CY Eliminate 70\% of Company S stockholder's equity against the
        investment account.
    D Distribute excess according to the determination and distribution of excess schedules.

A Depreciate the increase in equipment for the past and the current years, \$6,000 per year.

Cost-to-equity conversion: 10\% (January 1, 20X6, retained earnings of \$700,000--January 1, 20X3, retained earnings of $\$ 300,000$ )............................................. 60\% (January 1, 20X6, retained earnings of
$\$ 700,000-$ January 1, 20X5, retained earnings
 Total....................................................

Determination and Distribution of Excess Schedule:
10\% Investment:

| Price paid. | \$75, 000 |
| :---: | :---: |
| Less interest acquired, 10\% x \$500,000 | 50,000 |
| Goodwill | \$25,000 |

60\% Investment:
Price paid.................................................... $\$ 500,000$
Less interest acquired, 60\% x \$700,000................. 420,000
Excess of cost over book value............................ \$80,000
Increase equipment, 5 years, $60 \% \times$ \$50,000............. 30,000
Goodwill ................................................... $\$ 50,000$
========

DIF: E OBJ: 2
4. Pilatte Company acquired a $90 \%$ interest in the common stock of Sweet Company for $\$ 575,000$ on January 1, 20X3, when Sweet Company had the following stockholders' equity:


The preferred stock dividends are 2 years in arrears. Any excess is attributable to equipment with a 6-year life, which is undervalued by \$40,000, and to goodwill.

## Required:

Prepare a determination and distribution of excess schedule for the investment in Sweet Company.

ANS:
Determination and Distribution of Excess Schedule:

| Price paid |  | \$575, 000 |
| :---: | :---: | :---: |
| Less interest acquired |  |  |
| Common stock. | \$350, 000 |  |
| Paid-in capital in excess of par. | 75,000 |  |
| Retained earnings.... | \$150, 000 |  |
| Less dividends in arrears | (8,000) 142,000 |  |
| Total common stockholders' equity | \$567,000 |  |
| Interest acquired. | . 90 | 510,300 |
| Excess of cost over book value. |  | \$ 64,700 |
| Increase equipment, 90\% x \$40,000.. |  | 36,000 |
| Goodwill. |  | \$ 28,700 |

## DIF: M OBJ: 4

5. On January 1, 20X1, Company P purchased a 90\% interest in Company S for $\$ 320,000$. Company $P$ prepared the following determination and distribution of excess schedule at that time:

| Price paid |  | \$320, 000 |
| :---: | :---: | :---: |
| Less: Interest acquired |  |  |
| Common stock. | \$200, 000 |  |
| Retained earnings | 100, 000 |  |
| Total stockholders' equity | \$300, 000 |  |
| Interest acquired. | . 90 | 270,000 |
| Excess of cost over book value attributed |  |  |
| to a building (20-year life) |  | \$ 50, 000 |

Company $S$ had income of $\$ 30,000$ for $20 \times 1$ and $\$ 40,000$ for 20X2. No dividends were paid. Company P sold its entire investment in Company $S$ on January 1, 19X3, for $\$ 340,000$.

Chapter 7

Required:
a. Assuming that Company $P$ used the simple equity method to reflect its investment in Company $S$, prepare Company $\mathrm{P}^{\prime}$ s entries to record the sale.
b. Assuming that Company $P$ used the cost method to reflect its investment in Company $S$, prepare the entries to record the sale on Company $\mathrm{P}^{\prime} \mathrm{s}$ books.

ANS:

```
a. Retained Earnings--Company P.............. $ 5,000
    Investment in Company S....................
        To adjust investment account and Company
        P Retained Earnings for the additional
        Depreciation made on consolidated
        statement for 20X1 and 20X2 ($2,500 per
        year).
    Cash........................................ 340,000
    Loss on Disposal......................... 38,000
        Investment in Company S
        38,000
    Calculation of Investment in Company S
            Original Cost..........................
        Controlling Share of Subsidiary Income
            (90% x $70,000).........................
        Less: Additional building depreciation ..
    Investment in Company S
        $ 58,000
    Retained Earnings-- Company P..............
        To record parent share of subsidiary
        income as shown on prior years'
        consolidated statements, less additional
        building depreciation ($63,000 - $5,000).
    Cash
        340,000
    Loss on Disposal............................ 38,000
    Investment in Company S................
        To record the sale of the 80% interest
        in Company S.
```

DIF: M
OBJ: 3
6. Company $P$ Industries purchased a $70 \%$ interest in Company $S$ on January 1, 20X1, at a price $\$ 20,000$ in excess of book value. The excess was attributed to a patent with a life of 20 years. Since the purchase, there have been the following intercompany transactions:
(1) On January 1, 20X2, Company $P$ sold a piece of equipment with a net book value of $\$ 40,000$ to Company $S$ for $\$ 50,000$. The equipment had a five-year remaining life.
(2) Each year, starting in 20X3, Company $S$ has sold merchandise for resale to Company $P$ at cost plus 25\%. A summary of transactions shows the following:

| Year |  | Ending <br> Dollar Sales <br> with Mark-up |
| :---: | :---: | :---: | | Inventory |
| :---: |
| with Mark-up |

(3) On January 1, 20X5, Company P purchased Company S's 8\%, $\$ 100,000$ face value bonds for $\$ 98,000$, which were issued at par value. The bonds have five years to maturity.

Required:
Complete the following schedule to adjust the retained earnings of the noncontrolling and controlling interest on the December 31, 20X5, worksheet for a consolidated balance sheet only.

Adjustment to RE of:
Item
Calculation
Minority Controlling
Patent
Equipment
Merchandise
Bonds
Total

ANS:

|  | Calculation | Adjustment to RE of: |  |
| :---: | :---: | :---: | :---: |
| Item |  | NCI | Controlling |
| Patent | \$1,000 x 5 years |  | \$ 5,000 |
| Equipment | \$2,000 x 1 year (unearned) |  | 2,000 |
| Merchandise | \$60,000 x 20\%, Split 30\%/70\% | \$3,600 | 8,400 |
| Bonds | $\begin{aligned} & \$ 2,000 \text { gain - \$400, } \\ & \text { amortization for } 19 \times 5, \end{aligned}$ |  |  |
|  | Split 30\%/70\% | 480 | 1,120 |
| Total |  | \$4,080 | \$16,520 |

DIF: E REF: Appendix OBJ: A1
7. On January 1, 20X1, Patrick Company purchased $60 \%$ of the common stock of Solomon Company for $\$ 200,000$. On this date, Solomon had common stock, other paid-in capital, and retained earnings of $\$ 20,000, \$ 60,000$, and \$120,000 respectively.

On January 1, 20X1, the only tangible asset of Solomon which was undervalued was a long-term investment, which was worth \$15,000 more than book value.

On July 1, 20X2, Patrick Company purchased an additional 30\% of the common stock of Solomon Company for $\$ 140,000$.

On July 1, 20X2, the long-term investment was undervalued by $\$ 20,000$ and any remaining excess of cost over book value was due to goodwill.

Net income and dividends for 2 years for Solomon Company were:


In 20X2, the net income of Solomon for the first half of the year was \$30, 000.

In both 20X1 and 20X1, Patrick has accounted for its investment in Solomon using the cost method.

In the last quarter of $20 \times 2$, Solomon sold $\$ 80,000$ of goods to Patrick, at a gross profit rate of $30 \%$. On December 31, 20X2, $\$ 20,000$ of these goods are in Patrick's ending inventory.

Required:
a. Using the information above or on the separate worksheet, prepare determination and distribution of excess schedules for the two purchases. Use the Patrick company concept (prorata market value approach) in any write-up of assets.
b. Complete the Figure 7-2 worksheet for consolidated financial statements for 20X2.

ANS :
a. Determination and Distribution of Excess Schedule:

|  | 60\% on Jan. | 1, 20X1 | 30\% on Ju | 20x2 |
| :---: | :---: | :---: | :---: | :---: |
| Price paid |  | \$200,000 |  | \$140,000 |
| Less interest acquired |  |  |  |  |
| Common stock | \$ 20,000 |  | \$ 20, 000 |  |
| Other paid-in capital | 60,000 |  | 60,000 |  |
| Ret. earn., Jan. 1 | 120,000 |  | 170,000 |  |
| Income, 1-1 to 7-1 |  |  | 30,000 |  |
| Total equity | \$200,000 |  | \$280, 000 |  |
| Interest acquired | 60\% | 120,000 | 30\% | 84,000 |
| Excess of cost over |  |  |  |  |
| Allocable to: |  |  |  |  |
| Long-term investment | .6(15,000) | 9,000 | .3(20,000) | 6,000 |
| Goodwill |  | \$ 71,000 |  | \$ 50,000 |

b. For the worksheet solution, please refer to Answer 7-2.

Eliminations and Adjustments:
CV Convert to simple equity method as of January 1, $20 \times 2$ (60\% of $\$ 50,000$ increase in retained earnings from January 1, 20X1 to January 1, 20X2).

CY Eliminate the current-year dividend income of Patrick against dividends declared by Solomon.

EL Eliminate $90 \%$ of Solomon Company equity balances at the beginning of the year against the investment account. Also eliminate $30 \%$ of the January through June 30, 20X2 income ( $\$ 30,000$ ) with a debit of $\$ 9,000$ to Purchased Income.

D Distribute the $\$ 136,000$ excess cost as required by the determination and distribution of excess schedule.

IS Eliminate the intercompany sale and purchase.
EI Eliminate the $\$ 6,000$ of gross profit in the ending inventory.

Consolidated Net Income:
To Noncontrolling Interest: $.1 \times(80,000-6,000)=\$ 7,400$
To Controlling Interest: 100,000 + [.6 x (30,000)] + [.9 x (50,000

- 6,000)] = \$157,600

DIF: D OBJ: 2
8. On January 1, 20X1, Patrick Company purchased $60 \%$ of the common stock of Solomon Company for $\$ 200,000$. On this date, Solomon had common stock, other paid-in capital, and retained earnings of $\$ 20,000, \$ 60,000$, and \$120,000 respectively.

On January 1, 20X1, the only tangible asset of Solomon which was undervalued was a long-term investment, which was worth \$15,000 more than book value.

On July 1, 20X2, Patrick Company purchased an additional 30\% of the common stock of Solomon Company for $\$ 140,000$.

On July 1, 20X2, the long-term investment was undervalued by $\$ 20,000$ and any remaining excess of cost over book value was due to goodwill.

Net income and dividends for 2 years for Solomon Company were:

|  |  | $20 \times 1$ | $\frac{20 X 2}{}$ |
| :--- | :--- | ---: | ---: |
| Net income for year................... | $\$ 60,000$ | $\$ 96,000$ |  |
| Dividends, paid-in December......... | 0 | 50,000 |  |

In 20X2, the net income of Solomon for the first half of the year was \$50, 000.

In both 20X1 and 20X2, Patrick has accounted for its investment in Solomon using the simple equity method.

In the last quarter of $20 \times 2$, Solomon sold $\$ 80,000$ of goods to Patrick, at a gross profit rate of $30 \%$. On December 31, 20X2, $\$ 20,000$ of these goods are in Patrick's ending inventory.

Required:
a. Using the information above or on the separate worksheet, prepare determination and distribution of excess schedules for the two purchases. Use the Patrick company concept (prorata market value approach) in any write-up of assets.
b. Complete the Figure 7-3 worksheet for consolidated financial statements for 20X2.

ANS :
a. Determination and Distribution of Excess Schedule:

|  | $60 \%$ on Jan. | 1, 20X1 | 30\% on July | 20x2 |
| :---: | :---: | :---: | :---: | :---: |
| Price paid |  | \$200,000 |  | \$140,000 |
| Less interest acquired \$140,000 |  |  |  |  |
| Common stock | \$ 20,000 |  | \$ 20,000 |  |
| Other paid-in capital | 60, 000 |  | 60, 000 |  |
| Ret. earn., Jan. 1 | 120,000 |  | 170,000 |  |
| Income, 1-1 to 7-1 |  |  | 30,000 |  |
| Total equity | \$200,000 |  | \$280,000 |  |
| Interest acquired | 60\% | 120,000 | 30\% | 84,000 |
| Excess of cost over |  |  |  |  |
| Allocable to: |  |  |  |  |
| Long-term investment | .6(15,000) | 9,000 | .3(20,000) | 6,000 |
| Goodwill |  | \$ 71,000 |  | \$ 50,000 |

b. For the worksheet solution, please refer to Answer 7-3.

Eliminations and Adjustments:
CY Eliminate the current-year entries made in the investment account and in the Solomon income account.

EL Eliminate $90 \%$ of Solomon Company equity balances at the beginning of the year against the investment account. Also eliminate $30 \%$ of the January through June 30, 20X2 income ( $\$ 50,000$ ) with a debit of $\$ 15,000$ to Purchased Income.

D Distribute the $\$ 136,000$ excess cost as required by the determination and distribution of excess schedule.

IS Eliminate the intercompany sale and purchase.
EI Eliminate the $\$ 6,000$ of gross profit in the ending inventory.

Consolidated Net Income:
To Noncontrolling Interest: $1 \times(96,000-6,000)=\$ 9,000$
To Controlling Interest: 100,000 + [.6 x (50,000)] + [.9 x (46,000 - 6,000)] = \$166,000

DIF: D OBJ: 2
9. On January 1, 20X1, Parent Company purchased $60 \%$ of the common stock of Subsidiary Company for $\$ 177,000$. On this date, Subsidiary had common stock, other paid-in capital, and retained earnings of $\$ 20,000$, $\$ 80,000$, and \$150,000 respectively.

On January 1, 20X1, the only tangible asset of Subsidiary which was undervalued was a long-term investment, which was worth \$15,000 more than book value.

On July 1, 20X2, Parent Company purchased an additional 30\% of the common stock of Subsidiary Company for \$117,000.

On July 1, 20X2, the long-term investment was undervalued by $\$ 20,000$ and any remaining excess of cost over book value was due to goodwill.

On December 31, 20X2, Parent Company purchased the last $10 \%$ of the common stock of Subsidiary Company for $\$ 35,600$, a price equal to book value.

Net income and dividends for two years for Subsidiary Company were:


In 20X2, the net income of Subsidiary for the first half of the year was \$40, 000 .

In both 20X1 and 20X1, Parent has accounted for its investment in Subsidiary using the simple equity method.

Required:
a. Using the information above or on the separate worksheet, prepare determination and distribution of excess schedules for the first two purchases. Use the parent company concept (prorate market value approach) in any write-up of assets.
b. Complete the Figure 7-4 worksheet for consolidated financial statements for 20X2.

ANS:
a. Determination and Distribution of Excess Schedule:
Price paid $\frac{60 \% \text { on Jan. 1, 20X1 }}{\$ 177,000} \frac{30 \% \text { on July 1, 20X2 }}{\$ 117,000}$

Less interest acquired: Common stock
Other paid-in capital
Ret. earn., Jan. 1
Income, 1-1 to 7-1
Total equity
Interest acquired
Excess of cost over book value
Allocable to:

b. For the worksheet solution, please refer to Answer 7-4.

Eliminations and Adjustments:
CY Eliminate the current-year entries made in the investment account and in the subsidiary income account.

EL1 Eliminate 60\% of Subsidiary Company equity balances at the beginning of the year against the investment account.

EL2 Eliminate $30 \%$ of Subsidiary Company equity balances at the beginning of the year against the investment account. Also eliminate $30 \%$ of the January through June 30, 20X2 income (\$40,000) with a debit of $\$ 12,000$ to Purchased Income.

EL3 Eliminate $10 \%$ of Subsidiary Company equity balances at the beginning of the year against the investment account. Also eliminate $10 \%$ of the January through December 31, 20X2 income ( $\$ 96,000$ ) with a debit of $\$ 9,600$ to Purchased Income. Also eliminate the $\$ 4,000$ of dividends declared by Subsidiary which were paid to the $10 \%$ interest.

D Distribute the $\$ 42,000$ excess cost as required by the determination and distribution of excess schedule.

Consolidated Net Income:
To Noncontrolling Interest: 0
To Controlling Interest: 100,000 + (. $6 \times 40,000)+(.9 \times 56,000)$ = \$174,400 or $100,000+(100 \% \times 96,000)-12,000-9,600$ = \$174,400

DIF: D OBJ: 2
10. On January 1, 20X1, Parent Company purchased $10 \%$ of the common stock of Subsidiary Company for $\$ 60,000$. On this date, Subsidiary had common stock, other paid-in capital, and retained earnings of $\$ 20,000$, $\$ 160,000$, and $\$ 150,000$ respectively. Any excess of cost over book value was attributed to a patent, to be amortized over 10 years.

On July 1, 20X2, Parent Company purchased an additional 80\% of the common stock of Subsidiary Company for $\$ 350,000$. On this date, any excess of cost over book value was again attributed to a patent, to be amortized over 10 years.

Net income and dividends for two years for Subsidiary Company were:


In 20X2, the net income of Subsidiary for the first half of the year was \$45, 000.

For 20X1, Parent accounted for its investment using the cost method. On July 1, 20X2, an entry was NOT made to convert the first $10 \%$ to the equity method. For the last half of 20X2, Parent accounted for all of its investment using the simple equity method.

In the last quarter of $20 \times 2$, Subsidiary sold land with a cost of $\$ 20,000$ to Parent for $\$ 30,000$. On December 31, 20X2, Parent still holds the land.

Required:
a. Using the information above or on the separate worksheet, prepare determination and distribution of excess schedules for the two purchases.
b. Complete the Figure 7-5 worksheet for consolidated financial statements for 20X2.

ANS:
a. Determination and Distribution of Excess Schedule:

|  | $10 \%$ on Jan | 1, 20X1 | 80\% on | 20X2 |
| :---: | :---: | :---: | :---: | :---: |
| Price paid |  | \$60, 000 |  | \$350, 000 |
| Less interest acquired: |  |  |  |  |
| Common stock | \$ 20,000 |  | \$ 20,000 |  |
| Other paid-in capital | 160, 000 |  | 160, 000 |  |
| Ret. earn., Jan. 1 | 150, 000 |  | 200, 000 |  |
| Income, 1-1 to 7-1 |  |  | 45, 000 |  |
| Total equity | \$330, 000 |  | \$425,000 |  |
| Interest acquired | 10\% | 33,000 | 80\% | 340, 000 |
| Excess of cost over book value allocable |  |  |  |  |
| to the patent |  | \$27, 000 |  | \$ 10,000 |

b. For the worksheet solution, please refer to Answer 7-5.

Eliminations and Adjustments:
CV Convert the first $10 \%$ to the simple equity method as of July 1, 20X2. The conversion should also be recorded by Parent in its accounting records.

CY Eliminate the current-year entries made in the investment account and in the subsidiary income account.

EL Eliminate $90 \%$ of Subsidiary Company equity balances at the beginning of the year against the investment account. Also eliminate $80 \%$ of the January through June 30, 20X2 income ( $\$ 45,000$ ) with a debit of $\$ 36,000$ to Purchased Income.

D Distribute the $\$ 37,000$ excess cost as required by the determination and distribution of excess schedule.

A1 Amortize the patent on the $10 \%$ purchase over 10 years. Charge the 20X1 amortization against January 1, 20X1 retained earnings of Parent Company and the 20X2 against operating expenses.

A2 Amortize the patent on the $80 \%$ purchase over 10 years. Charge the 20X2 amortization for one-half of a year against operating expenses.

LA Eliminate the intercompany gain on sale of land.
Consolidated Net Income:
To Noncontrolling Interest: $1 \times(100,000-10,000)=\$ 9,000$
To Controlling Interest: 100,000 + (.1 x 45,000) + [.9 x (55,000

- 10,000)] - $500-2,700=\$ 141,800$ or
$100,000+[.9 \times(100,000-10,000)]$
- 36,000-2,700 - $500=\$ 141,800$

DIF: D OBJ: 2
11. On January 1, 20X1, Parent Company purchased $40 \%$ of the common stock of Subsidiary Company for $\$ 120,000$. On this date, Subsidiary had common stock, other paid-in capital, and retained earnings of $\$ 20,000$, $\$ 80,000$, and $\$ 150,000$ respectively. Any excess of cost over book value was attributed to a patent, to be amortized over 10 years.

On April 1, 20X2, Parent Company purchased an additional 50\% of the common stock of Subsidiary Company for $\$ 190,000$. On this date, any excess of cost over book value was again attributed to a patent, to be amortized over 10 years.

Net income and dividends for 2 years for Subsidiary Company were:


In 20X2, the net income of Subsidiary for the first quarter of the year was \$30,000.

For 20X1, Parent accounted for its investment in Subsidiary using the sophisticated equity method. For all of $20 \times 2$, Parent accounted for all of its investment using the simple equity method.

In the last quarter of 20X2, Subsidiary sold land with a cost of $\$ 20,000$ to Parent for $\$ 30,000$. On December 31, $20 \times 2$, Parent still holds the land.

Required:
a. Using the information above or on the separate worksheet, prepare determination and distribution of excess schedules for the two purchases.
b. Complete the Figure 7-6 worksheet for consolidated financial statements for 20X2.

ANS:
a. Determination and Distribution of Excess Schedule:

|  | 40\% on Jan | 1, 20X1 | 50\% on | 1, 20X2 |
| :---: | :---: | :---: | :---: | :---: |
| Price paid |  | \$120,000 |  | \$190,000 |
| Less interest acquired: |  |  |  |  |
| Common stock | \$ 20,000 |  | \$ 20,000 |  |
| Other paid-in capital | 80, 000 |  | 80, 000 |  |
| Ret. earn., Jan. 1 | 150, 000 |  | 200, 000 |  |
| Income, 1-1 to 4-1 |  |  | 30, 000 |  |
| Total Equity | \$250,000 |  | \$330, 000 |  |
| Interest acquired | 40\% | 100,000 | 50\% | 165,000 |
| Excess of cost over <br> book value allocable |  |  |  |  |
| to the patent |  | \$ 20,000 |  | \$ 25,000 |

```
b. For the worksheet solution, please refer to Answer 7-6.
Eliminations and Adjustments:
CY Eliminate the current-year entries made in the investment
    account and in the subsidiary income account.
EL Eliminate 90% of Subsidiary Company equity balances at the
    beginning of the year against the investment account. Also
    eliminate 50% of the January through March 20X2 income
    ($30,000) with a debit of $15,000 to Purchased Income.
    D Distribute the $43,000 remaining excess cost of cost over
        book value as required by the determination and distribution
        of excess schedule. Since the sophisticated equity method
        was used during 20X1 on the first 40%, the proper
        eliminations will yield an $18,000 (not $20,000) excess on
        this part of the investment.
A1 Amortize the patent on the 40% purchase over 10 years.
        Charge the 20X2 amortization against operating expenses.
A2 Amortize the patent on the 50% purchase over 10 years.
        Charge the 20X2 amortization for three-fourths of a year
        against operating expenses.
LA Eliminate the intercompany gain on sale of land.
Consolidated Net Income:
To Noncontrolling Interest: .1 x (100,000 - 10,000) = $9,000
To Controlling Interest: 100,000 + (.4 x 30,000) + [.9 x (70,000
    - 10,000)] - 2,000 - 1,875 = $162,125 or
    100,000 + [.9 x (100,000 - 10,000)]
    - 15,000 - 2,000 - 1,875 = $162,125
DIF: D OBJ: 2
```

12. On January 1, 20X1, Parent Company acquired $80 \%$ of the common stock of Subsidiary Company for $\$ 400,000$. On this date, Subsidiary had total owners' equity of $\$ 400,000$. Any excess of cost over book value was due to goodwill.

During 20X1 and 20X2, Parent has appropriately accounted for its investment in Subsidiary using the simple equity method.

During 20X2, Subsidiary had net income of $\$ 90,000$, of which one-half was earned during the first six months. Dividends of $\$ 30,000$ were declared and paid-in December 20X2.

For the first half of 20X2, Parent recorded its 80\% share of Subsidiary's net income. The balance in the investment on July 1, 20X2 was \$476,000.

On July 1, 20X2, Parent Company sold $10 \%$ of the total stock of Subsidiary, reducing its investment percentage to 70\%. The following entry was made on that date, for the $10 \%$ sold only, to record the sale of the $10 \%$ investment.

```
Cash ..................................... 63,125
    Gain on Sale of Subsidiary Stock .......
    4,000
    Investment In Sub. Company ............ 59,125
        (476,000 x 1/8) - 375
```

On January 1, 20X2, Subsidiary held merchandise acquired from Parent for \$10,000. During 20X2, Parent sold merchandise to Subsidiary for \$70,000, of which \$15,000 is held by Subsidiary on December 31, 20X2. Parent's usual gross profit on affiliated sales is $40 \%$.

Required:
Complete the Figure 7-7 worksheet for consolidated financial statements for the year ended December 31, 20X2.

ANS:
For the worksheet solution, please refer to Answer 7-7.
Eliminations and Adjustments:
NCI Transfer to NCI the share of income sold on July 1, 20X2 ( $10 \%$ of $\$ 45,000$ ) with a credit. Debit Subsidiary Income for \$4,375 and operating expenses for \$125.

CY Eliminate the parent's entry recording its remaining 70\% share of income for all of 20X2 against dividends declared by Subsidiary.

EL Eliminate 70\% of the Subsidiary Company equity balances at the beginning of the year against the investment account.

D Allocate the remaining $\$ 70,000$ excess of cost over book value to goodwill.

BI Eliminate the $\$ 4,000$ of gross profit in the beginning inventory.

IS Eliminate the entire intercompany sales of $\$ 70,000$.
EI Eliminate the $\$ 6,000$ of gross profit in the ending inventory.

Consolidated Net Income:
To Noncontrolling Interest: (. $3 \times 90,000$ ) - 4,500 = \$22,500
To Controlling Interest: 100,000 + 4,000 - 6,000 + (.7 x 90,000) $+4,375+4,000=\$ 169,375$

DIF: D OBJ: 3
13. On January 1, 20X1, Pepper Company purchased $90 \%$ of the common stock of Salt Company for $\$ 330,000$. Any excess of cost over book value on this date is attributed to a patent, to be amortized over 10 years.

On this date, Salt had total shareholders' equity as follows:

| 8\% Preferred Stock, \$100 | \$100, 000 |
| :---: | :---: |
| Common Stock, \$10 par | 50,000 |
| Other Paid-in Capital | 120, 000 |
| Retained Earnings | 180, 000 |
| Total | \$450,000 |

The $8 \%$ preferred stock is cumulative, non-participating, and has a liquidating value of par plus dividends in arrears. There were no preferred dividends in arrears on January 1, 20X1.

During 20X1, Salt had a net loss of $\$ 10,000$ and paid no dividends. In 20X2, Salt had net income of $\$ 100,000$ and paid dividends, on preferred and common, totaling \$36,000.

In 20X1 and 20X2, Pepper has accounted for its investment in Salt using the simple equity method.

During 20X2, Salt sold merchandise to Pepper for $\$ 40,000$, of which $\$ 20,000$ is still held by Pepper on December 31, 20X2. Salt's usual gross profit is 40\%.

## Required:

Complete the Figure 7-8 worksheet for consolidated financial statements for the year ended December 31, 20X2.

ANS:
For the worksheet solution, please refer to Answer 7-8.
Eliminations and Adjustments:
PS Allocate the 8,000 of preferred dividends in arrears on January 1, 20X2 to the preferred equity.

CY Eliminate the current-year entries made in the investment account and in the Salt income account.

EL Eliminate 90\% of Salt's common equity balances at the beginning of the year against the investment account.

D Allocate the $\$ 15,000$ excess of cost over book value to the patent.

A Amortize the patent over 10 years, with \$1,500 for 20X1 charged to retained earnings, and \$1,500 for 20X2 to operating expenses.

IS Eliminate the entire intercompany sales of $\$ 40,000$.
EI Eliminate the $\$ 8,000$ of gross profit in the ending

```
        inventory.
Consolidated Net Income:
To Noncontrolling Interest - Preferred: $8,000 for 20X2 dividends
To Noncontrolling Interest - Common: . 1 x (100,000 - 8,000 - 8,000)
                        = $8,400
To Controlling Interest: 80,000 + [.9 x (100,000 - 8,000 - 8,000)]
                        - 1,500 = $154,100
DIF: D OBJ: 4
14. On January 1, 20X1, Pepper Company purchased \(90 \%\) of the common stock of Salt Company for \(\$ 330,000\). Any excess of cost over book value on this date is attributed to a patent, to be amortized over 10 years.
On this date, Salt had total shareholders' equity as follows:
8\% Preferred Stock, \$100 par............................... \$100,000
Common Stock, \$10 par...................................... 50,000
Other Paid-in Capital.................................... 120 , 000
Retained Earnings.......................................... 180 180,000
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========
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The $8 \%$ preferred stock is cumulative, non-participating, and has a liquidating value of par plus dividends in arrears. There were no preferred dividends in arrears on January 1, 20X1.

During 20X1, Salt had a net loss of $\$ 10,000$ and paid no dividends. In 20X2, Salt had net income of $\$ 100,000$ and paid dividends, on preferred and common, totaling \$36,000.

In 20X1 and 20X2, Pepper has accounted for its investment in Salt using the cost method.

During 20X2, Salt sold merchandise to Pepper for $\$ 40,000$, of which $\$ 20,000$ is still held by Pepper on December 31, 20X2. Salt's usual gross profit is 40\%.

Required:
Complete the Figure 7-9 worksheet for consolidated financial statements for the year ended December 31, 20X2.

ANS:
For the worksheet solution, please refer to Answer 7-9.
Eliminations and Adjustments:
CV Convert to the simple equity method as of January 1, 20X1. Due to the combined effect of Salt's loss of \$10,000 in 20X1 and the $\$ 8,000$ arrearage of preferred dividends, the decrease in retained earnings to the common equity is $\$ 18,000$. Of this $\$ 18,000,90 \%$ or $\$ 16,200$ is allocable to the controlling interest.

PS Allocate the $\$ 8,000$ of preferred dividends in arrears on January 1, 20X2 to the preferred equity.

CY Eliminate the current-year dividend income against dividends declared to common stock by Salt.

EL Eliminate 90\% of Salt's common equity balances at the beginning of the year against the investment account.

D Allocate the $\$ 15,000$ excess of cost over book value to the patent.

A Amortize the patent over 10 years, with \$1,500 for 20X1 charged to retained earnings, and \$1,500 for 20X2 to operating expenses.

IS Eliminate the entire intercompany sales of $\$ 40,000$.
EI Eliminate the $\$ 8,000$ of gross profit in the ending inventory.

Consolidated Net Income:
To Noncontrolling Interest - Preferred: \$8,000 for 20X2 dividends
To Noncontrolling Interest - Common: . $1 \times(100,000-8,000-8,000)$ $=\$ 8,400$

To Controlling Interest: $80,000+[.9 \times(100,000-8,000-8,000)]$ - 1,500 = \$154,100

DIF: D
OBJ: 4
15. On January 1, 20X1, Parent Company purchased $80 \%$ of the common stock of Subsidiary Company for $\$ 300,000$. Any excess of cost over book value on this date is attributed to a patent, to be amortized over 10 years.

On this date, Subsidiary had total shareholders' equity as follows:


The $8 \%$ preferred stock is cumulative, non-participating, and has a liquidating value of par plus dividends in arrears. There were no preferred dividends in arrears on January 1, 20X1.

During 20X1, Subsidiary had a net loss of $\$ 10,000$ and paid no dividends. In 20X2, Subsidiary had net income of $\$ 100,000$ and paid dividends, on preferred and common, totaling \$40,000.

On January 1, 20X2, Parent purchased $\$ 50,000$ par value of Subsidiary's preferred stock for $\$ 52,000$. At year end, the preferred is still held as an investment.

In 20X1 and 20X2, Parent has accounted for its investments in Subsidiary's preferred and common using the simple equity method.

During 20X2, Subsidiary sold merchandise to Parent for $\$ 40,000$, of which $\$ 15,000$ is still held by Parent on December 31, 20X2. Subsidiary's usual gross profit is $40 \%$.

Required:
Complete the Figure 7-10 worksheet for consolidated financial statements for the year ended December 31, 20X2.

ANS:
For the worksheet solution, please refer to Answer 7-10.
Eliminations and Adjustments:
PS Allocate the $\$ 8,000$ of preferred dividends in arrears on January 1, 20X2 to the preferred equity.

CY Eliminate the current-year entries made in the investment in common and the subsidiary income accounts.

EL Eliminate 80\% of Subsidiary's common equity balances at the beginning of the year against the investment in common.

D Allocate the $\$ 20,000$ excess of cost over book value to the patent.

A Amortize the patent over 10 years, with $\$ 2,000$ for 20x1 charged to retained earnings, and $\$ 2,000$ for 20X2 to operating expenses.

IS Eliminate the entire intercompany sales of $\$ 40,000$.
EI Eliminate the $\$ 6,000$ of gross profit in the ending inventory.

CYP Eliminate the current-year entries made in the investment in preferred and the subsidiary income accounts.

ELP Eliminate 50\% of Subsidiary's preferred equity balances at the beginning of the year against the investment in preferred. The difference is credited to controlling paid-in capital since it results from a transaction with the consolidated firm's shareholders.

Consolidated Net Income:
To Noncontrolling Interest - Preferred: \$8,000 for 20X2 dividends x $50 \%=\$ 4,000$

To Noncontrolling Interest - Common: $.2 \times \underset{=}{(100,000-817,200}-000-6,000)$
To Controlling Interest:
80,000 + 4,000 + [.8 x (100,000 - 8,000 - 6,000)] - 2,000 = \$150,800

DIF: D OBJ: 4
16. On January 1, 20X1, Parent Company purchased $80 \%$ of the common stock of Subsidiary Company for $\$ 380,000$. Any excess of cost over book value on this date is due to goodwill.

On this date, Subsidiary had common shareholders' equity as follows:
Common stock, $\$ 10$ par........................................ $\$$ 50, 000
Other paid-in capital....................................... 170,000
Retained earnings.......................................... 180 , 000
Also on the date of purchase, Subsidiary had outstanding \$200,000 par value of $10 \%$ preferred stock that is cumulative and nonparticipating. The preferred stock has a liquidating value of par, plus dividends in arrears. There were no preferred dividends in arrears on January 1, 20X1.

During 20X1, Subsidiary had a net income of \$30,000 and paid no dividends. In 20X2, Subsidiary had net income of $\$ 120,000$ and paid dividends, on preferred and common, totaling \$60,000.

In 20X1 and 20X2, Parent has accounted for its investment in Subsidiary using the cost method.

On July 1, 20X2, Parent purchased equipment for $\$ 70,000$ and immediately sold it to Subsidiary for $\$ 100,000$. Subsidiary will use and depreciate the equipment over 5 years, assuming straight-line depreciation with no salvage value.

Required:
Complete the Figure 7-11 worksheet for consolidated financial statements for the year ended December 31, 20X2.

ANS:
For the worksheet solution, please refer to Answer 7-11.
Eliminations and Adjustments:
CV Convert to the simple equity method as of January 1, 20X2. Subsidiary's increase in retained earnings during 20X1 was $\$ 30,000$, of which $\$ 20,000$ belongs to the preferred equity for dividends in arrears. The remaining \$10,000 increase belongs to the common equity, with $80 \%$ of this to Parent.

PS Allocate the $\$ 20,000$ of preferred dividends in arrears on January 1, 20X2 to the preferred equity.

CY Eliminate the current-year dividend income of Parent against dividends declared by Subsidiary.

EL Eliminate $80 \%$ of Subsidiary's common equity balances at the beginning of the year against the investment in common.

D Distribute the $\$ 60,000$ excess of cost over book value to goodwill.

F1 Eliminate the $\$ 30,000$ gain on sale of equipment against building and equipment.

F2 Eliminate the $\$ 3,000$ of excess depreciation for the last half of $20 \times 2$ on the transferred equipment.

Consolidated Net Income:
To Noncontrolling Interest - Preferred: \$20,000 for 20X2 dividends
To Noncontrolling Interest - Common: . $2 \times(120,000-20,000)=$ \$20, 000

To Controlling Interest: 114,000-30,000 + [. 8 x (120,000 $20,000)]+3,000=\$ 167,000$

DIF: D OBJ: 4
17. On January 1, 20X1, Parent Company purchased $80 \%$ of the common stock of Subsidiary Company for $\$ 380,000$. Any excess of cost over book value on this date is due to goodwill.

On this date, Subsidiary had common shareholders' equity as follows:
Common stock, $\$ 10$ par........................................ $\$$ 50, 000
Other paid-in capital.......................................... 170,000
Retained earnings.......................................... 180 , 000
Also on the date of purchase, Subsidiary had outstanding \$200,000 par value of $10 \%$ preferred stock that is cumulative and nonparticipating. The preferred stock has a liquidating value of par, plus dividends in arrears. There were no preferred dividends in arrears on January 1, 20X1.

During 20X1, Subsidiary had a net income of \$30,000 and paid no dividends. In 20X2, Subsidiary had net income of $\$ 120,000$ and paid dividends, on preferred and common, totaling \$60,000.

On January 1, 20X2, Parent purchased all of Subsidiary's preferred stock for $\$ 210,000$. At year-end, the preferred is still held as an investment.

In 20X1 and 20X2, Parent has accounted for its investment in Subsidiary using the cost method.

On July 1, 20X2, Parent purchased equipment for $\$ 70,000$ and immediately sold it to Subsidiary for $\$ 100,000$. Subsidiary will use and depreciate the equipment over 5 years, assuming straight-line depreciation with no salvage value.

Required:
Complete the Figure 7-12 worksheet for consolidated financial statements for the year ended December 31, 20X2.

ANS:
For the worksheet solution, please refer to Answer 7-12.
Eliminations and Adjustments:
CV Convert to the simple equity method as of January 1, 20X2. Subsidiary's increase in retained earnings during 20X1 was $\$ 30,000$, of which $\$ 20,000$ belongs to the preferred equity for $\$ 30,000$, of which $\$ 20,000$ belongs to the preferred equity for dividends in arrears. The remaining \$10,000 increase belongs to the common equity, with $80 \%$ of this to Parent.

PS Allocate the \$20,000 of preferred dividends in arrears on January 1, 20X2 to the preferred equity.

CY Eliminate the current-year dividend income of Parent against dividends declared by Subsidiary.

EL Eliminate 80\% of Subsidiary Company equity balances at the beginning of the year against the investment account.

D Allocate the $\$ 60,000$ excess of cost over book value to goodwill.

F1 Eliminate the $\$ 30,000$ gain on sale of equipment against building and equipment.

F2 Eliminate the $\$ 3,000$ of excess depreciation for the last half of $20 \times 2$ on the transferred equipment.

CYP Eliminate the $\$ 40,000$ of dividend income from Subsidiary's preferred against the dividends declared account of Subsidiary.

ELP Eliminate the January 1 preferred equity balances against the investment in preferred. The difference is credited to controlling paid-in capital since it results from a transaction with the consolidated firm's shareholders.

Consolidated Net Income:
To Noncontrolling Interest: . $2 \times(120,000-20,000)=\$ 20,000$
To Controlling Interest:
$114,000-30,000+3,000+(100 \% \times 20,000)+$ $[80 \% \times(120,000-20,000)]=\$ 187,000$

DIF: D OBJ: 4
18. On January 1, 20X1, Parent Company acquired $90 \%$ of the common stock of Subsidiary Company for $\$ 343,000$. On this date, Subsidiary had total owners' equity of $\$ 270,000$, including retained earnings of $\$ 100,000$.

On January 1, 20X1, any excess of cost over book value is attributable to the undervaluation of land, building, and goodwill. Land is worth $\$ 20,000$ more than cost. Building is worth $\$ 60,000$ more than book value. It has a remaining useful life of 9 years and is depreciated using the straight-line method.

During 20X1, Parent has appropriately accounted for its investment in Subsidiary using the cost method.

During 20X1, Subsidiary sold merchandise to Parent for $\$ 70,000$, of which $\$ 20,000$ is held by Parent on December 31, 20X1. Subsidiary's usual gross profit on affiliated sales is 50\%.

On December 31, 20X1, Parent still owes Subsidiary \$5,000 for merchandise acquired in December.

On July 1, 20X1, Parent sold to Subsidiary some equipment with a cost of $\$ 40,000$ and a book value of $\$ 18,000$. The sales price was $\$ 30,000$. Subsidiary is depreciating the equipment over a 4-year life, assuming no salvage value and using the straight-line method.

Required:
Prepare a determination and distribution of excess schedule. Next, complete the Figure 7-13 worksheet for a consolidated balance sheet as of December 31, 20X1.

ANS:
For the worksheet solution, please refer to Answer 7-13.
Eliminations and Adjustments:
CV Convert to the simple equity method as of December 31, 20X1, (90\% of \$40,000 increase in retained earnings from January 1, 20X1, to December 31, 20X1).

EL Eliminate $90 \%$ of the subsidiary equity accounts against the investment in subsidiary account.

D Distribute the excess of cost over book value to net assets as required by the determination and distribution of excess schedule.

A Amortize the excess write-up to building over 9 years.
EI Eliminate the intercompany gross profit in the ending inventory.

IA Eliminate the intercompany receivable and payable.
F1 Eliminate the gain on sale of equipment from the Retained Earnings of Parent.

F2 Eliminate the excess depreciation on the equipment sold from Parent to Subsidiary. \$12,000 $\div 4$ years $=\$ 3,000 \times 1 / 2$ year $=\$ 1,500$

Determination and Distribution of Excess Schedule:

| Cost of Investment |  | \$343, 000 |
| :---: | :---: | :---: |
| Book value of investment |  |  |
| Common stock | \$ 50,000 |  |
| Other paid-in capital | 120, 000 |  |
| Retained earnings | 100,000 |  |
| Total | \$270, 000 |  |
| Percentage acquired. | 90\% | 243,000 |
| Excess of cost over book value (debit balance).............. |  | \$100, 000 |
| Allocable to: |  |  |
| Land 90\% x 20,000. |  | \$18,000 |
| Building 90\% x 60,000 |  | 54,000 |
| Goodwill |  | \$28,000 |

DIF: D REF: App OBJ: A1
19. On January 1, 20X1, Parent Company acquired $90 \%$ of the common stock of Subsidiary Company for $\$ 337,000$. On this date, Subsidiary had total owners' equity of $\$ 270,000$, including retained earnings of $\$ 100,000$.

On January 1, 20X1, any excess of cost over book value is due to the undervaluation of land, building, and goodwill. Land is worth $\$ 10,000$ more than cost. Building is worth $\$ 50,000$ more than book value, has a remaining life of 9 years, and is depreciated using the straight-line method.

During 20X1 and 20X2, Parent has appropriately accounted for its investment in Subsidiary using the simple equity method.

During 20x2, Subsidiary sold merchandise to Parent for $\$ 50,000$, of which $\$ 10,000$ is held by Parent on December 31, 20X1. Subsidiary's gross profit on sales is 40\%. On December 31, 20X1, Parent still owes Subsidiary \$7,000 for merchandise acquired in December.

On July 1, 20X0, Subsidiary sold \$100,000 par value of $10 \%$, 10 -year bonds for $\$ 104,000$. The bonds pay interest semiannually on January 1 and July 1. Straight-line amortization of premium is used. On January 1, 20X2, Parent repurchased one-half of the bonds at par.

On January 1, 20X2, Parent purchased equipment for $\$ 104,610$ and immediately leased the equipment to Subsidiary on a 4-year lease. The minimum lease payments of $\$ 30,000$ are to be made annually on January 1, beginning immediately, for a total of 4 payments. The implicit interest rate is 10\%. The useful life of the equipment is 4 years. The lease has been capitalized by both companies. Subsidiary is depreciating the equipment using the straight-line method and assuming a salvage value of \$4, 610 .

A partial lease amortization schedule, applicable to either company, is presented below:

| Carrying | Carrying | Interest |  |  | Principal |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Value on | Value | Rate | Interest | Payment | Reduction |
| 1-1-20X2 | $\begin{array}{r} \$ 104,610 \\ -\quad 30,000 \end{array}$ |  |  |  |  |
| 1-1-20X2 | $\begin{array}{r} \$ 74,610 \\ -\quad 22,539 \\ \hline \end{array}$ | 10\% | \$7,461 | \$30, 000 | \$22,539 |
| 1-1-20X3 | \$ 52,071 |  |  |  |  |

## Required:

Prepare a determination and distribution of excess schedule. Next, complete the Figure 7-14 worksheet for a consolidated balance sheet as of December 31, 20X2. Round all computations to the nearest dollar.

ANS ：

Determination and Distribution of Excess Schedule：
Cost of Investment ．．．．．．．．．．．．．．．．．．\＄337，000
Book value of investment
Common stock．．．．．．．．．．．．．．．．．．．．．．．\＄50，000
Other paid－in capital．．．．．．．．．．．．．．．120，000
Retained earnings．．．．．．．．．．．．．．．．．．．100，000
Total．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．\＄270，000
Percentage acquired．．．．．．．．．．．．．．．．．．． $90 \%$
Excess of cost over book value
（debit balance）
90\％
243， 000
\＄94，000
＝＝＝＝＝＝＝
Allocable to：
Land 90\％x（10，000）．．．．．．．．．．．．．．\＄9，000 Dr．
Building 90\％x（50，000）．．．．．．．．．．
Goodwill
45，000 Dr．
\＄40，000 Dr．
＝ニニニニニ＝

For the worksheet solution，please refer to Answer 7－14．
Eliminations and Adjustments：
EL Eliminate $90 \%$ of the subsidiary equity accounts against the investment in subsidiary account．

D Distribute the excess of cost over book value to net assets as required by the determination and distribution of excess schedule．

A Amortize the excess write－up to building over 9 years， charging $\$ 5,000 \times 2$ or $\$ 10,000$ to Retained Earnings of Parent．

EI Eliminate the intercompany gross profit in the ending inventory．

IA Eliminate the intercompany receivable and payable．
B1 Eliminate bond interest receivable against $50 \%$ of bond interest payable．

B2 Eliminate the bond investment against $50 \%$ of bonds payable and premium on bonds．
The resulting gain of $\$ 1,500$ is allocated $90 \%$ and $10 \%$ to retained earnings of Parent and Subsidiary．

CL1 Eliminate the lease payable（lease obligation payable plus lease interest payable）against the lease receivable（minimum lease payments receivable less unearned interest income）．

CL2 Reclassify the leased equipment．
CL3 Reclassify the accumulated depreciation on the leased equipment．

DIF：D
REF：App
OBJ：A1
[[Insert FIGURE 7-1 from Excel spreadsheet]]
[[Insert ANSWER 7-1 from Excel spreadsheet]]
[[Insert FIGURE 7-2 from Excel spreadsheet]]
[[Insert ANSWER 7-2 from Excel spreadsheet]]
[[Insert FIGURE 7-3 from Excel spreadsheet]]
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[[Insert FIGURE 7-13 from Excel spreadsheet]]
[[Insert ANSWER 7-13 from Excel spreadsheet]]
[[Insert FIGURE 7-14 from Excel spreadsheet]]
[[Insert ANSWER 7-14 from Excel spreadsheet]]

## Chapter 8 - Subsidiary Equity Transactions; Indirect and Mutual Holdings

## MULTIPLE CHOICE

1. A parent company owns a $100 \%$ interest in a subsidiary. Recently, the subsidiary paid a $10 \%$ stock dividend. The dividend should be recorded on the books of the parent
a. at the par value or stated value of the shares received.
b. at the market value of the shares on the date of declaration.
c. at the market value of the shares on the date of distribution.
d. merely as a memo entry indicating that the cost of the original investment now is allocated to a greater number of shares.

ANS: D DIF: E OBJ: 1
2. Company $P$ purchased a $80 \%$ interest in the Company $S$ on January 1, 20X1, for $\$ 600,000$. Any excess of cost is attributed to the Company's building with a 20-year life. The equity balances of Company $S$ are as follows:

|  | January 1, 20X1 |  | December 31, 20X4 |
| :--- | :---: | :---: | :---: |
| Common stock, \$10 par.. | $\$ 100,000$ | $\$ 140,000$ |  |
| Other paid-in capital.. | 200,000 |  | 280,000 |
| Retained earnings...... | 250,000 |  | 450,000 |

The only change in paid-in capital is a result of a $40 \%$ stock dividend paid in 20X3. The cost to simple equity conversion to bring the investment account to its December 31, 20X4, balance is $\qquad$ .
a. \$30, 000
b. \$136,000
c. \$160,000
d. \$256,000

ANS: D DIF: M OBJ: 1
3. When the parent purchases some newly issued shares of a subsidiary, any adjustments resulting from the subsidiary stock sales should be made a. at the end of the current fiscal year when the worksheet is prepared.
b. at the time of the sale when the equity method is used.
c. at the time of the sale if the cost method is used.
d. retroactively to the start of the current fiscal year.

ANS: B DIF: E OBJ: 2
4. A subsidiary stock sale of new shares to a noncontrolling interest may be viewed so that any increase in parent's interest is viewed as generating additional paid-in capital and any decrease is viewed as a reduction first in paid-in capital in excess of par if it exists; otherwise, parent retained earnings is reduced. This is a(n)
a. parent company concept.
b. proportionate consolidation concept.
c. economic unit concept.
d. equity method.

ANS: C DIF: E OBJ: 2
5. Paris LTD. owned a 75\% interest in Scott Company prior to January 1, 20X3. On January 1, 20X1, Paris LTD. paid \$600,000 for its interest when Scott Company had total equity of \$550,000. On January 1, 20X3, Scott Company had the following stockholders' equity:

Common stock, \$10 par.............. \$100,000
Other paid-in capital.............. 200,000
Retained earnings.................. 350,000
On January 2, 20X3, Scott Company sold 2,500 additional shares of stock for $\$ 80$ each in a private offering to noncontrolling shareholders. As a result of this sale, which of the following changes would appear in the 20X3 consolidated statements?
a. \$50,000 gain
b. \$22,500 gain
c. \$50,000 increase in controlling paid-in capital
d. $\$ 22,500$ increase in controlling paid-in capital

ANS: D DIF: M OBJ: 2
6. Paris LTD. owned a $75 \%$ interest in Scott Company prior to January 1, 20X3. On January 1, 20X1, Paris LTD. paid \$600,000 for its interest when Scott Company had total equity of \$550,000. On January 1, 20X3, Scott Company had the following stockholders' equity:

Common stock, \$10 par.............. \$100,000
Other paid-in capital.............. 200,000
Retained earnings.................. 350,000
On January 2, 20X3, Scott Company sold 2,500 additional shares of stock for $\$ 35$ each in a private offering to noncontrolling shareholders. As a result of this sale, which of the following changes would appear in the 20X3 consolidated statements?
a. \$45, 000 loss
b. \$21,875 loss
c. $\$ 45,000$ decrease in controlling paid-in capital
d. $\$ 21,875$ decrease in controlling paid-in capital

ANS: C DIF: M OBJ: 2
7. Paris LTD. owned a $75 \%$ interest in Scott Company prior to January 1, 20X3. On January 1, 20X1, Paris LTD. paid $\$ 600,000$ for its interest when Scott Company had total equity of \$550,000. On January 1, 20X3, Scott Company had the following stockholders' equity:

| Common stock, \$10 par | \$100, 000 |
| :---: | :---: |
| Other paid-in capital | 200, 000 |
| Retained earnings | 350,000 |

On January 2, 20X3, Scott Company sold 2,500 additional shares of stock for $\$ 80$ each in a public offering to noncontrolling shareholders. As a result of this sale, which of the following changes would appear in the 20X3 consolidated statements?
a. $\$ 50,000$ gain
b. $\$ 22,500$ gain
c. $\$ 50,000$ increase in controlling paid-in capital
d. $\$ 22,500$ increase in controlling paid-in capital

ANS: D DIF: M OBJ: 2
8. Paris LTD. owned a $75 \%$ interest in Scott Company prior to January 1, 20X3. On January 1, 20X1, Paris LTD. paid $\$ 600,000$ for its interest when Scott Company had total equity of $\$ 550,000$. On January 1, 20X3, Scott Company had the following stockholders' equity:

| Common stock, $\$ 10$ par.................. | $\$ 100,000$ |
| :--- | ---: |
| Other paid-in capital................. | 200,000 |
| Retained earnings.................... | 350,000 |

On January 2, 20X3, Scott Company sold 2,500 additional shares of stock for $\$ 35$ each in a public offering to noncontrolling shareholders. As a result of this sale, which of the following changes would appear in the 20X3 consolidated statements?
a. $\$ 45,000$ loss
b. $\$ 21,875$ loss
c. $\$ 45,000$ decrease in controlling paid-in capital
d. $\$ 21,875$ decrease in controlling paid-in capital

ANS: C DIF: M OBJ: 2
9. Paris LTD. owned a $75 \%$ interest in Scott Company prior to January 1, 20X3. On January 1, 20X1, Paris LTD. paid $\$ 600,000$ for its interest when Scott Company had total equity of $\$ 550,000$. Scott Company had the following stockholders' equity on the dates shown:

|  | $1 / 1 / \mathrm{X1}$ | $1 / 1 / \mathrm{X3}$ | $\frac{12 / 31 / \mathrm{X}}{}$ |
| :--- | ---: | ---: | ---: | ---: |
| Common stock, \$10 par...... | $\$ 100,000$ | $\$ 100,000$ | $\$ 125,000$ |
| Other paid-in capital..... | 200,000 | 200,000 | 375,000 |
| Retained earnings......... | 250,000 | 350,000 | 400,000 |

On January 2, 20X3, Scott Company sold 2,500 additional shares of stock for $\$ 80$ each in a private offering to noncontrolling shareholders. Assume that the investment in Scott Company is carried under the cost method. The cost-to-equity adjustment to the investment account to bring it to its simple equity adjusted cost on December 31, 20X4, would be an increase of $\qquad$ _.
a. $\$ 96,000$
b. $\$ 112,500$
c. $\$ 127,500$
d. $\$ 224,000$

ANS: C DIF: M OBJ: 2
10. Paris LTD. owned a $75 \%$ interest in Scott Company prior to January 1, 20X3. On January 1, 20X1, Paris LTD. paid $\$ 600,000$ for its interest when Scott Company had total equity of $\$ 550,000$. Scott Company had the following stockholders' equity on the dates shown:

|  | $1 / 1 / \mathrm{X1}$ | $1 / 1 / \mathrm{X3}$ | $\frac{12 / 31 / \mathrm{X4}}{}$ |
| :--- | ---: | ---: | ---: |
| Common stock, $\$ 10$ par $\ldots . .$. | $\$ 100,000$ | $\$ 100,000$ | $\$ 125,000$ |
| Other paid-in capital..... | 200,000 | 200,000 | 250,000 |
| Retained earnings......... | 250,000 | 350,000 | 400,000 |

On January 2, 20X3, Scott Company sold 2,500 additional shares of stock for $\$ 30$ each in a private offering to noncontrolling shareholders. Assume that the investment in Scott Company is carried under the cost method. The cost-to-equity adjustment to the investment account to bring it to its simple equity adjusted cost on December 31, 20X4, would be an increase of $\qquad$ .
a. $\$ 52,500$
b. $\$ 112,500$
c. $\$ 120,000$
d. $\$ 135,000$

ANS: A DIF: M OBJ: 2
11. Company $P$ owns $80 \%$ of the outstanding common stock of the Company $S$ and has 10, 000 outstanding shares of common stock. If Company $S$ issues 2,500 added shares of common stock, and Company $P$ purchases some of the newly issued shares, which of the following statements is true?
a. Other than recording the purchase, there is no adjustment to the controlling interest if the parent purchases all the shares issued.
b. Other than recording the purchase, there is no adjustment to the controlling interest if the parent does not purchase any of the shares issued.
c. Other than recording the purchase, there is no adjustment to the controlling interest if the parent purchases $80 \%$ of the shares issued.
d. There is a new excess of cost over book value or excess of book value over cost if the parent purchases $80 \%$ of the newly issued shares.

ANS: C DIF: E OBJ: 2
12. Prior to January 1, 20X3, Company P owned a 90\% interest Company S. On January 1, 20X3, Company $S$ had the following stockholders' equity:
$\begin{array}{llr}\text { Common stock, \$10 par................ } & \$ 100,000 \\ \text { Other paid-in capital.............. } & 200,000 \\ \text { Retained earnings.................. } & 300,000\end{array}$
On January 2, 20x9, Company S sold 2,000 added shares in a private offering for $\$ 80$ per share. Company $P$ purchased all the shares. As a result of this sale,
a. the investment account increases \$160,000 and controlling interest in paid-in capital decreases.
b. the investment account increases \$160,000, and there is additional excess of cost over book value.
c. the investment account increases \$160,000, and a gain is recorded.
d. the investment account increases \$160,000, and a loss is recorded.

ANS: B DIF: M OBJ: 2
13. Prior to January 1, 20X3, Company P owned a $90 \%$ interest Company S. On January 1, 20X3, Company $S$ had the following stockholders' equity:

Common stock, \$10 par.............. \$100,000
Other paid-in capital.............. 200,000
Retained earnings.................. 250,000
On January 2, 20X3, Company S sold 2,000 added shares in a private offering for $\$ 70$ per share. Company $P$ purchased 600 of the shares. As a result of this sale, there is $a(n)$
a. gain on the consolidated income statement of \$15,000.
b. increase in the controlling interest, paid-in excess of $\$ 15,000$.
c. increase in the investment account and a new excess of cost over book value.
d. increase in the controlling interest, paid-in capital of $\$ 57,000$.

ANS: B DIF: M OBJ: 2
14. When a parent purchases a portion of the newly issued stock of its subsidiary and the ownership interest remains the same,
a. any difference between the change in equity and the price paid is the excess of cost or book value attributable to the new block.
b. any difference between the change in equity and the price paid is viewed as a gain or loss on the sale of an interest.
c. any difference between the change in equity and the price paid is viewed as a change in paid-in capital or retained earnings.
d. there will be no adjustment.

ANS: D DIF: E OBJ: 2
15. When a parent purchases a portion of the newly issued stock of its subsidiary in a private offering and the ownership interest decreases,
a. any difference between the change in equity and the price paid is the excess of cost or book value attributable to the new block.
b. any difference between the change in equity and the price paid is viewed as a gain or loss on the sale of an interest.
c. any difference between the change in equity and the price paid is viewed as a change in paid-in capital or retained earnings.
d. there will be no adjustment.

ANS: C DIF: E OBJ: 2
16. When a parent purchases a portion of the newly issued stock of its subsidiary and the ownership interest increases,
a. any difference between the change in equity and the price paid is the excess of cost or book value attributable to the new block.
b. any difference between the change in equity and the price paid is viewed as a gain or loss on the sale of an interest.
c. any difference between the change in equity and the price paid is viewed as a change in paid-in capital or retained earnings.
d. there will be no adjustment.

ANS: A DIF: E OBJ: 2
17. Apple Inc. purchased a $70 \%$ interest in the Banana Company for $\$ 450,000$ on January 1, 20X3, when Banana Company had the following stockholders' equity:

Common stock, \$10 par................... \$100,000
Other paid-in capital..................... 250,000
Retained earnings.......................... 150,000
At the time of the purchase, Banana Company was an $80 \%$ owner of the Carrot Company. The investment in Carrot Company is accounted for under the sophisticated equity method. On the date of the purchase, Carrot Company has a machine that has a market value in excess of book value of $\$ 20,000$. There is no difference between book and market value for any Banana Company assets. The goodwill that would result from this purchase is
a. $\$ 100,000$
b. $\$ 86,000$
c. $\$ 84,000$
d. $\$ 88,800$

ANS: D DIF: M OBJ: 4
18. Apple Inc. owns a 90\% interest in Banana Company. Banana Company, in turn, owns a 80\% interest in Carrot Company. During 20X4, Carrot Company sold $\$ 50,000$ of merchandise to Apple Inc. at cost plus $25 \%$. Of this merchandise, $\$ 10,000$ was still unsold by Apple Inc. at year end. The adjustment to the controlling interest in consolidated net income for 20X4 is $\qquad$ .
a. \$560
b. \$1,440
c. \$1,600
d. $\$ 1,800$

ANS: B DIF: M OBJ: 4
19. Able Company owns an $80 \%$ interest in Barns Company and a $20 \%$ interest in Carns Company. Barns owns a 40\% interest in Carns Company.
a. Able does not control Carns; thus, Carns' income is not included in the consolidated statements.
b. Able controls Carns; the noncontrolling interest of Carns Company is 48\%.
c. Able controls Carns; the noncontrolling interest of Carns Company is 40\%.
d. Barns accounts for Carns under the sophisticated cost method; Barns is then consolidated with Able.

ANS: C DIF: E OBJ: 4
20. Able Company owns an $80 \%$ interest in Barns Company and a $20 \%$ interest in Carns Company. Barns owns a $40 \%$ interest in Carns Company. The reported income of Carns is $\$ 20,000$ for 20X4. Which of the following shows how it will be distributed?

|  | Barns <br> Non- <br> Controlling <br> Interest | Carns <br> Non- <br> Interest |
| :--- | :--- | :--- |
| a. $\$ 10,400$ | $\$ 1,600$ | Controlling <br> b. $\$ 2,000$ |
| c. $\$ 12,000$ | $\$ 8,000$ | $\$ 8,000$ |
| d. $\$ 10,400$ | $\$$ | 0 |
| $\$ 9,600$ | $\$ 8,000$ |  |
| d | $\$ 0$ |  |

ANS: A DIF: M OBJ: 4
21. Consolidated statements for $X, Y$, and $Z$ are proper if
a. X owns $100 \%$ of the outstanding common stock of $Y$ and $49 \%$ of $Z$; $M$ owns 51\% of Z .
b. X owns $100 \%$ of the outstanding common stock of $Y$ and $75 \%$ of $Z$; $X$ bought the stock of $Z$ one month before the statement date and sold it 6 weeks later.
c. $X$ owns $100 \%$ of the outstanding stock of $Y ; Y$ owns $75 \%$ of $Z$.
d. There is no interrelation of financial control among $X, Y$, and $Z$; however, they are contemplating the joint purchase of $100 \%$ of the outstanding stock of $D$.
e. $X$ owns $100 \%$ of the outstanding common stock of $Y$ and $Z ; Z$ is in bankruptcy.

ANS: C DIF: E OBJ: 4
22. Which of the following situations is a mutual holding?
a. A owns $80 \%$ of $B$, and $B$ owns $70 \%$ of $C$.
b. A owns $80 \%$ of $B$ and $20 \%$ of $C$; $B$ owns $70 \%$ of $C$
c. A Owns $80 \%$ of $B$, and $B$ owns $20 \%$ of $A$.
d. None of the above

ANS: C DIF: E OBJ: 5
23. Company $P$ had 300,000 shares of common stock outstanding. It owned $80 \%$ of the outstanding common stock of $S$. S owned 20,000 shares of $P$ common stock. In the consolidated balance sheet, Company $\mathrm{P}^{\prime}$ s outstanding common stock may be shown as
a. 285,000 shares.
b. 300,000 shares.
c. 300,000 shares, less 20,000 shares of treasury stock.
d. 300, 000 shares, footnoted to indicate that $S$ holds 20,000 shares.

ANS: C DIF: E OBJ: 5
24. A owns $80 \%$ of $B$ and $20 \%$ of $C$. B owns $32 \%$ of $C$, and $C$ owns $10 \%$ of $A$. Which interest will not be included in the consolidated balance sheet?
a. $10 \%$ of $A$
b. $100 \%$ of $C$
c. $10 \%$ of $A$ and $48 \%$ of $C$
d. $20 \%$ of $B$ and $48 \%$ of $C$

ANS: A DIF: E OBJ: 5
25. Manke Company owns a $90 \%$ interest in Neske Company. Neske, in turn, owns a $10 \%$ interest in Manke. Neske has 10,000 common stock shares outstanding, and Manke has 20,000 common stock shares outstanding. How many shares would each firm show as outstanding in the consolidated balance sheet, under the treasury stock method?
a. Manke, 20,000
b. Manke, 20,000; Neske, 1,000
c. Manke, 18,000; Neske, 1,000
d. Manke, 18,000

ANS: C DIF: E OBJ: 5
26. Alston Inc. owns $90 \%$ of the capital stock of Balance Co. Balance owns $15 \%$ of the capital stock of Alston. Net income, before adjusting for interest in intercompany net income for each firm, was \$50,000 for Alston and \$19,000 for Balance.

The following notations are used. Ignore all income tax considerations.
Ai $=$ Alston's consolidated net income, i.e., its net income plus its share of the consolidated net income of Balance

Bi = Balance's consolidated net income, i.e., its net income plus its share of the consolidated net income of Alston

The equation, in a set of simultaneous equations, that computes Bi is a. $\mathrm{Bi}=.10 \times(19,000+.15 \mathrm{Ai})$.
b. $\mathrm{Bi}=19,000+.15 \mathrm{Ai}$.
c. $\mathrm{Bi}=(.10 \times 10,000)+.15 A i$.
d. $\mathrm{Bi}=(.10 \times 19,000)+(.15 \times 50,000)$.

ANS: B DIF: M OBJ: 5
27. Alston Inc. owns $90 \%$ of the capital stock of Balance Co. Balance owns $15 \%$ of the capital stock of Alston. Net income, before adjusting for interest in intercompany net income for each firm, was $\$ 50,000$ for Alston and \$19,000 for Balance.

The following notations are used. Ignore all income tax considerations.
Ai = Alston's consolidated net income, i.e., its net income plus its share of the consolidated net income of Balance

Bi = Balance's consolidated net income, i.e., its net income plus its share of the consolidated net income of Alston

Balance's noncontrolling interest in consolidated net income is
a. (. $10 \times 19,000$ )
b. $19,000+.15 \mathrm{Ai}$.
c. $10 \times(19,000+.15 A i)$.
d. $(10 \times 19,000)+(.15 \times 50,000)$.

ANS: C DIF: M OBJ: 5

## PROBLEM

1. Two types of intercompany stock purchases significantly complicate the consolidation process. The first occurs when the subsidiary issues added shares of stock in a public issue and the parent buys a portion of the shares. The second occurs when the subsidiary purchases outstanding shares of the parent company.

Required:
a. Discuss the current theoretical consolidation procedure for situations in which the parent buys a portion of the newly issued subsidiary shares that is (1) equal to its existing ownership percentage, (2) greater than its existing ownership percentage, and (3) less than its existing ownership percentage.
b. Discuss the most widely supported, current theoretical consolidation procedures used when the subsidiary purchases outstanding common stock shares of the parent.

ANS:
a. (1) The parent's investment account increases, but the increase is equal to the change in the parent's equity in the subsidiary. Thus, there is no added excess of cost or book value, and there is no equity adjustment.
(2) That portion of the purchase that exceeds the shares needed to maintain the existing ownership percentage constitutes a new block of stock that requires a new determination and distribution of excess schedule for the added interest. There will be separate amortization of excess on the new block.
(3) In effect, the parent's investment mitigates the impact on its portion of subsidiary equity. The equity interest prior to the issuance plus the price paid for the added interest is compared to the equity interest after the issuance. If there is an increase, paid-in capital in excess of par increases. If there is a decrease, paid-in capital in excess of par decreases.
b. The most popular view of a mutual holding is that the subsidiary is purchasing the shares of the parent as an agent of the parent. This is a reasonable view since the subsidiary is controlled by the parent. The shares purchased are treated as treasury shares. As such, these shares do not receive any share of consolidated income.

DIF: M OBJ: 2, 5
2. Company $P$ owned an $80 \%$ interest in Company $S$ on January 1, 20X6, when Company $S$ had the following stockholders' equity:

| Common stock (\$20 par) | \$180, 000 |
| :---: | :---: |
| Paid-in capital in excess of par | 350, 000 |
| Retained earnings | 220,000 |
| Total stockholders' equity | \$750, 000 |

On July 1, 20x6, Company S sold 1,000 additional shares to minority shareholders in a public offering for $\$ 50$ per share. Company S's net income for $20 \times 6$ was $\$ 80,000$, and the income was earned evenly during the year.

Company $P$ uses the simple equity method to record the investment in Company S. Summary entries are made each December 31 to record the year's activity.

## Required:

Prepare Company P's equity adjustments for $20 \times 6$ that result from changes in the investment in Company $S$ account. Assume Company $P$ has $\$ 500,000$ of paid-in capital in excess of par.

ANS:

| Investment in Company S. | 60,800 |  |
| :---: | :---: | :---: |
| Subsidiary Income. |  | 60,800 |
| Calculation: |  |  |
| 80\% x first 6 months income of 40,000. |  | \$ 32,000 |
| $72 \% \times$ second 6 months income of 40,000 |  | 28,800 |
| Total. |  | \$ 60,800 |
| Paid-in capital in excess of par | 27,200 |  |
| Investment in Company S. |  | 27,200 |
| Calculation: |  |  |
| Interest after sale |  |  |
| Company S, January 1, equity. | \$750, 000 |  |
| Income, first 6 months. | 40, 000 |  |
| Sale of shares, 1,000 x \$50. | 50,000 |  |
| Total stockholders' equity. | \$840, 000 |  |
| Interest | . 72 | \$604, 800 |
| Interest prior to sale |  |  |
| (750,000 + 40,000) x 80\%. |  | 632,000 |
| Decrease in ownership interest |  | \$ 27,200 |

DIF: D OBJ: 2
3. Company $P$ purchased an $80 \%$ interest in Company $S$ on January 1, $20 \times 1$, for $\$ 300,000$. Any excess of cost was attributable to goodwill.

On January 1, 20X4, Company S purchased 2,400 shares held by noncontrolling stockholders for $\$ 50$ per share. Any excess of cost over book value is attributable to goodwill. No other changes to the paid-in capital account have occurred.

Company $S$ equity balances on various dates were as follows:

|  | $\begin{gathered} \text { January } 1, \\ 20 \times 1 \end{gathered}$ | $\begin{gathered} \text { December } 31, \\ 20 \times 3 \end{gathered}$ | $\begin{gathered} \text { December } 31, \\ 20 \times 5 \end{gathered}$ |
| :---: | :---: | :---: | :---: |
| Capital stock (\$10 par). | \$120, 000 | \$120, 000 | \$120, 000 |
| Paid-in capital in excess of par. | 60,000 | 60,000 | 60,000 |
| Retained earnings | 160,000 | 240,000 | 340, 000 |
| Treasury stock (at cost) |  |  | $(120,000)$ |

Company P maintains its investment at cost. Company S recorded the purchase of its shares as treasury stock at cost.

## Required:

Prepare the necessary determination and distribution of excess schedules and all Figure 8-1 worksheet eliminations and adjustments on the following partial worksheet prepared on December 31, 20X6:

ANS:
Determination and Distribution of Excess Schedule:
80\% Interest

| 80\% Interest |  |
| :---: | :---: |
| Price paid. | \$300, 000 |
| Interest acquired, 80\% x \$340,000. | 272,000 |
| Goodwill | \$ 28,000 |
| 20\% Treasury Stock |  |
| Price paid, 2,400 shares x \$50. | \$120,000 |
| Interest acquired, 20\% x \$420,000. | 84,000 |
| Goodwill | \$ 36,000 |

For the worksheet solution, please refer to Answer 8-1.
Eliminations and Adjustments:
CV Convert the $80 \%$ interest to the equity method, $80 \% \times$ (\$340,000-\$160,000).

CVT Convert the $20 \%$ treasury stock to the equity method, $20 \%$ of (\$340,000-\$240,000).

EL Eliminate the 80\% investment against Company $S$ equity.

D Distribute the excess on the 80\% interest.

ELT Eliminate the treasury stock investment against Company S equity.

DT Distribute the excess of the $20 \%$ treasury stock.

DIF: D OBJ: 3
4. Company B purchased an $80 \%$ interest in the common stock of Company C for $\$ 600,000$ on January 1, 20X1. Any excess of cost is attributable to a patent with a 20-year life. Company B maintains its investment in Company $C$ under the cost method.

Company A purchased a $60 \%$ interest in the common stock of Company $B$ on January 1, 20X5, for $\$ 2,500,000$. Any excess of cost is attributable to Company C equipment, which is understated by \$100,000, and a Company B building, which is understated by $\$ 200,000$. Any remaining excess is considered attributable to the patent. Relevant stockholders' equities are as follows:

|  | Company B | Company C |  |
| :---: | :---: | :---: | :---: |
|  | $\begin{gathered} \text { January 1, } \\ 20 \times 5 \end{gathered}$ | $\begin{gathered} \hline \text { January } 1, \\ 20 \times 1 \end{gathered}$ | $\begin{aligned} & \text { January } 1, \\ & 20 \times 5 \end{aligned}$ |
| Common stock. | \$ 400,000 | \$100, 000 | \$100, 000 |
| Paid-in capital in |  |  |  |
| excess of par | 1,100,000 | 150,000 | 150,000 |
| Retained earnings | 2,000,000 | 300, 000 | 450, 000 |

Required:
a. Prepare a determination and distribution of excess schedule for the investment in Company B.
b. On January 1, 20X6, Company C sold a machine with a net book value of $\$ 40,000$ to Company $A$ for $\$ 50,000$. The machine has a 5 -year life. Prepare the eliminations and adjustments needed on the December 31, 20X7, trial balance worksheet that relate to this intercompany sale.

ANS:

*Determination and Distribution of Excess Schedule:
Price paid........................................... \$600,000
Interest acquired, 80\% x \$550,000, Company C equity.................................. . 440,000
Attributable to the patent 20-year life.......... \$160,000
========
b. Eliminations and Adjustments:

| Retained Earnings, A, 8,000 x 80\% x 60\%. | 3,840 |  |
| :---: | :---: | :---: |
| Retained Earnings, B, 8,000 x 80\% x 40\%. | 2,560 |  |
| Retained Earnings, C, 8,000 x 20\%. | 1,600 |  |
| Accumulated Depreciation | 2,000 |  |
| Machine |  | 10,000 |
| To eliminate the remaining gain and restore machine value. |  |  |
| Accumulated Depreciation. | 2,000 |  |
| Depreciation Expense. |  | 2,000 |
| To recognize gain for the current ye |  |  |

DIF: D OBJ: 4
5. Company $P$ purchased an $80 \%$ interest in the Company $S$ for $\$ 480,000$ on January 1, 20X1, when Company $S$ had the following stockholders' equity:

Common stock, \$10 par..................................... \$200,000
Retained earnings............................................... 3 300,000
Total equity.............................................. $\$$...
========

Any excess is attributable to goodwill.
On January 1, 20x3, Company S purchased a $10 \%$ interest in the Company $P$ at a price equal to book value. Both firms maintain investments under the cost method.

Required:
a. Complete the Figure 8-2 partial worksheet for December 31, 20X3, assuming the use of the treasury stock method.
b. Calculate the distribution of income for 20X3, assuming that internally generated net income is \$50,000 for Circus and \$20,000 for Square.

ANS:
a. For the worksheet solution, please refer to Answer 8-2.

Eliminations and Adjustments:
CV Convert investment in Company $S$ to the equity method, $80 \%$ of (\$400, 000 - \$300, 000).

ELS Eliminate the investment in Company $S$ against Company $S$ equity.

D Distribute the excess according to the schedule.
ELP Eliminate the investment in Company $P$ against Company $P$ equity.
b. Controlling interest:
$\$ 50,000+(80 \% \times \$ 20,000) \ldots . . . . . . . . . .$.

Noncontrolling interest: 20\% x \$20,000........ 4,000
Consolidated net income: ..................... \$70,000
======

DIF: D OBJ: 5
6. On January 1, 20X1, Prism Company purchased 7,500 shares of the common stock of Sight Company for $\$ 495,000$. On this date, Sight had 20,000 shares of $\$ 10$ par common stock authorized, 10,000 shares issued and outstanding. Other paid-in capital and retained earnings were $\$ 200,000$ and $\$ 300,000$ respectively. On January 1, 20X1, any excess of cost over book value is due to a patent, to be amortized over 15 years.

Sight's net income and dividends for two years were:

|  | 20X1 | 20X2 |
| :---: | :---: | :---: |
| Net income | \$50,000 | \$80,000 |
| Dividends | 10,000 | 20,000 |

In November, 20X1, Sight Company also declared a $10 \%$ stock dividend at a time when the market price of its common stock was $\$ 50$ per share. The stock dividend was distributed on December 31, $20 \times 1$.

For both 20X1 and 20X2, Prism Company has accounted for its investment in Sight Company using the simple equity method.

During 20X1, Sight Company sold goods to Prism Company for $\$ 40,000$, of which $\$ 10,000$ was on hand on December 31, 20X1. During 20X2, Sight sold goods to Prism for $\$ 60,000$ of which $\$ 15,000$ was on hand on December 31, 20X2. Sight's gross profit on intercompany sales is $40 \%$.

Required:
Complete the Figure 8-3 worksheet for consolidated financial statements for 20X2.

ANS:
For the worksheet solution, please refer to Answer 8-3.
Eliminations and Adjustments:
CY Eliminate the current-year entries made in the investment account and in the Sight income account.

EL Eliminate 75\% of Sight Company equity balances at the beginning of the year against the investment account.

D Distribute the $\$ 45,000$ excess of cost over book value to the patent.

A Amortize the patent over 15 years. Charge the 20X1 amortization to retained earnings of Prism and the 20X2 amortization to operating expenses.

B1 Eliminate the intercompany gross profit in the beginning inventory of Prism.

IS Eliminate the intercompany sale and purchase of merchandise.
EI Eliminate the intercompany gross profit in the ending inventory of Prism.

Consolidated Net Income:
To Noncontrolling Interest: . $25 \times(80,000+4,000-6,000)=\$ 19,500$
To Controlling Interest: $100,000+[.75 \times(80,000+4,000-6,000)]$

- 3,000 = \$155,500

DIF: D OBJ: 1
7. On January 1, 20X1, Prism Company purchased 7,500 shares of the common stock of Sight Company for $\$ 495,000$. On this date, Sight had 20,000 shares of $\$ 10$ par common stock authorized, 10,000 shares issued and outstanding. Other paid-in capital and retained earnings were $\$ 200,000$ and $\$ 300,000$ respectively. On January 1, $20 \times 1$, any excess of cost over book value is due to a patent, to be amortized over 15 years.

Sight's net income and dividends for two years were:

|  | 20X1 | 20X2 |
| :---: | :---: | :---: |
| Net income | \$50,000 | \$80,000 |
| Dividends | 10,000 | 20,000 |

In November, 20X1, Sight Company also declared a 10\% stock dividend at a time when the market price of its common stock was $\$ 50$ per share. The stock dividend was distributed on December 31, 20X1.

For both 20X1 and 20X2, Prism Company has accounted for its investment in Sight using the cost method.

During 20X1, Sight Company sold goods to Prism Company for $\$ 40,000$, of which \$10,000 was on hand on December 31, 20X1. During 20X2, Sight sold goods to Prism for $\$ 60,000$ of which $\$ 15,000$ was on hand on December 31, 20X2. Sight's gross profit on intercompany sales is 40\%.

Required:
Complete the Figure 8-4 worksheet for consolidated financial statements for 20x2.

ANS:
For the worksheet solution, please refer to Answer 8-4.
Eliminations and Adjustments:
CV Convert to the simple equity method as of January 1, 20X2.
Computation of conversion:
Retained earnings, January 1, 20X2 (after stock dividend)\$290,000
Retained earnings, January 1, 20X1 .................... 300,000
Change in retained earnings balance (decrease)........ (10,000)
Add back retained earnings transferred to
other paid-in capital (\$50 x 1,000 shares)
as a result of stock dividend............................... 50,000
Ownership interest. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 75 75
Simple equity conversion................................. \$ 30,000
=======
or
20X1 net income - dividends declared (\$50,000-\$10,000) x 75\% = \$30,000
CY Eliminate the current-year dividend income of Prism against dividends declared by Sight.

EL Eliminate $75 \%$ of Sight Company equity balances at the beginning of the year against the investment account

D Distribute the $\$ 45,000$ excess of cost over book value to the patent.

A Amortize the patent over 15 years. Charge the 20X1 amortization to retained earnings of Prism and the 20X2 amortization to operating expenses.

BI Eliminate the intercompany gross profit in the beginning inventory of Prism.

IS Eliminate the intercompany sale and purchase of merchandise.
EI Eliminate the intercompany gross profit in the ending inventory of Prism.

Consolidated Net Income:
To Noncontrolling Interest: . $25 \times(80,000+4,000-6,000)=\$ 19,500$
To Controlling Interest: 100,000 + [.75 x (80,000 + 4,000-6,000)] - 2,000 = \$156,500

DIF: D OBJ: 1
8. On January 1, 20X1, Parent Company purchased 8,000 shares of the common stock of Subsidiary Company for $\$ 350,000$. On this date, Subsidiary had 20,000 shares of $\$ 5$ par common stock authorized, 10,000 shares issued and outstanding. Other paid-in capital and retained earnings were \$150, 000 and $\$ 200,000$ respectively. On January 1, 20X1, any excess of cost over book value is due to a patent, to be amortized over 15 years.

Subsidiary's net income and dividends for two years were:

|  |  |
| :--- | :--- |
| Net income. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | $\frac{20 X 1}{\$ 50,000}$ |
| Dividends. . . . . . . . . . . . . . . . . . . . . . . . | 10,000 |

On January 1, 20X2, Subsidiary Company sold an additional 2,000 shares of common stock to one individual for $\$ 50$ per share. The shares were not issued in a public offering.

On this date, Parent Company recorded the following entry on its books as a result of its change in percentage ownership of Subsidiary Company.

```
Jan. 1 Investment in Subsidiary Company... 8,000
    Other Paid-in Capital...........
                To record increase in ownership
                interest
```

For both 20X1 and 20X2, Parent Company has correctly applied the simple equity method.

In the last quarter of 20X2, Subsidiary Company sold goods to Parent Company for $\$ 40,000$. Subsidiary's usual gross profit on intercompany sales is $40 \%$. On December 31, $\$ 7,500$ of these goods are still in Parent's ending inventory.

Required:
Complete the Figure 8-5 worksheet for consolidated financial statements for 20X2.

ANS :

| The original patent is as follows:$\$ 350,000-80 \% \times(50,000+150,000+200,000)=\$ 30,000 .$ |  |
| :---: | :---: |
| Parent's percentage ownership - before: 8,000 $\div 10,000=80 \%$ |  |
| Parent's percentage ownership - after: 8,000 $\div 12,000$ | 2/3\% |
| Adjustment for change in ownership percentage: |  |
| Subsidiary Company shareholders' equity prior |  |
| to sale. | \$440,000 |
| Add to common stock, \$5 par x 2,000 shares | 10,000 |
| Add to other paid-in capital, \$45 x 2,000 shares | \$ 90,000 |
| Subsidiary Company shareholders' equity subsequent |  |
| to sale | \$540,000 |
| Controlling interest subsequent to sale |  |
| ( $662 / 3 \%$ of $\$ 540,000$ ).................. | \$360, 000 |
| Controlling interest prior to sale (80\% of \$440,000) | 352, 000 |
| Net increase in controlling interest | \$ 8,000 |

Eliminations and Adjustments:
CY Eliminate the current-year entries made in the investment account and in the subsidiary income account.

EL Eliminate 66 2/3\% of Subsidiary Company equity balances at the beginning of the year against the investment account.

D Distribute the $\$ 30,000$ excess of cost over book value to the patent.

A Amortize the patent over 15 years. Charge the 20x1 amortization to retained earnings of Parent and the 20X2 amortization to operating expenses.

IS Eliminate the intercompany sale and purchase of merchandise.
EI Eliminate the intercompany gross profit in the ending inventory of Parent.

Consolidated Net Income:
To Noncontrolling Interest: $.331 / 3 \times(90,000-3,000)=\$ 29,000$
To Controlling Interest: 100,000 + [.66 2/3 x (90,000 - 3,000)] -
2,000 = \$156,000

DIF: D OBJ: 2
9. On January 1, 20X1, Parent Company purchased 8,000 shares of the common stock of Subsidiary Company for $\$ 350,000$. On this date, Subsidiary had 20,000 shares of $\$ 5$ par common stock authorized, 10,000 shares issued and outstanding. Other paid-in capital and retained earnings were \$150, 000 and $\$ 200,000$ respectively. On January 1, 20X1, any excess of cost over book value is due to a patent, to be amortized over 15 years.

Subsidiary's net income and dividends for 2 years were:

|  | 20X1 | 20X2 |
| :---: | :---: | :---: |
| Net income. | \$50,000 | \$90,000 |
| Dividends | 10,000 | 30,000 |

On January 1, 20X2, Subsidiary Company sold an additional 2,000 shares of common stock to one individual for $\$ 50$ per share. The shares were not issued in a public offering.

For both 20X1 and 20X2, Parent Company has correctly applied the cost method.

In the last quarter of 20X2, Subsidiary Company sold goods to Parent Company for $\$ 40,000$. Subsidiary's usual gross profit on intercompany sales is $40 \%$. On December 31, $\$ 7,500$ of these goods are still in Parent's ending inventory.

Required:
Complete the Figure 8-6 worksheet for consolidated financial statements for 20X2.

ANS:
For the worksheet solution, please refer to Answer 8-6.
The original patent is as follows
$\$ 405,000-90 \% \times(50,000+150,000+200,000)=\$ 45,000$.
Parent's percentage ownership - before: 8,000 $\div 10,000=80 \%$
Parent's percentage ownership - after: 8,000 $\div 12,000=662 / 3 \%$
Cost-to-equity conversion
Adjustment to Parent Company retained earnings: 80\% of change in retained earnings of Subsidiary Company from January 1, 20X1 to January 1, 20X2: 80\% x \$40,000..............................

Adjustment to Parent Company other paid-in capital: Controlling interest after sale
( 66 2/3\% of $\$ 540,000$ ).................... \$360,000
Controlling interest before sale
(80\% of \$440,000).......................... 352,000
Adjustment to investment account:

$$
\begin{array}{r}
8,000 \\
\$ 40,000 \\
======
\end{array}
$$

Eliminations and Adjustments:
CV Convert to the simple equity method as of January 1, 20X2.
CY Eliminate the current-year dividend income of Parent against dividends declared by Subsidiary.

EL Eliminate 66 2/3\% of Subsidiary Company equity balances at the beginning of the year against the investment account.

D Distribute the $\$ 30,000$ excess of cost over book value to patent.

A Amortize the patent over 15 years. Charge the 20X1 amortization to retained earnings of Parent and the 20x2 amortization to operating expenses.

IS Eliminate the intercompany sale and purchase of merchandise.
EI Eliminate the intercompany gross profit in the ending inventory of Parent.

Consolidated Net Income:
To Noncontrolling Interest: . 33 1/3 x (90,000-3,000) = \$29,000
To Controlling Interest: $100,000+[.662 / 3 \times(90,000-3,000)]$ 2,000 = \$156,000

DIF: D OBJ: 2
10. On January 1, 20X1, Parent Company purchased 9,000 shares of the common stock of Subsidiary Company for $\$ 405,000$. On this date, Subsidiary had 20,000 shares of $\$ 5$ par common stock authorized, 10,000 shares issued and outstanding. Other paid-in capital and retained earnings were \$150, 000 and $\$ 200,000$ respectively. On January 1, 20X1, any excess of cost over book value is due to a patent, to be amortized over 15 years.

Subsidiary's net income and dividends for two years were:

|  | 20X1 | 20X2 |
| :---: | :---: | :---: |
| Net income | \$50,000 | \$80,000 |
| Dividends | 10,000 | 20,000 |

On January 1, 20X2, Subsidiary Company sold an additional 2,000 shares of common stock for $\$ 50$ per share. The shares were not issued in a public offering. Parent purchased 1,200 shares of the new issue, and one individual purchased the other 800.

On this date, Parent Company recorded the following entries on its books for the purchase and as a result of its change in percentage ownership of Subsidiary Company.

```
Jan. 1 Investment in Subsidiary Company....... 60,000
    Other Paid-in Capital............... 60,000
                To record purchase of 1,200 shares
Jan. 1 Investment in Subsidiary Company....... 3,000
    Other Paid-in Capital............... 3,000
                To record increase in ownership
                interest
```

For both 20X1 and 20X2, Parent Company has correctly applied the simple equity method.

In the last quarter of 20X2, Subsidiary Company sold goods to Parent Company for $\$ 40,000$. Subsidiary's usual gross profit on intercompany sales is 40\%. On December 31, $\$ 10,000$ of these goods are still in Parent's ending inventory.

Required:
Complete the Figure 8-7 worksheet for consolidated financial statements for 20X2.

ANS:
For the worksheet solution, please refer to Answer 8-7.
The original patent is as follows:

$$
\$ 405,000-90 \% \times(50,000+150,000+200,000)=\$ 45,000
$$

Parent's percentage ownership - before: 9,000 $\div 10,000=90 \%$
Parent's percentage ownership - after: 10,200 $\div 12,000=85 \%$

Adjustment for change in ownership percentage:

| Subsidiary Company shareholders' equity prior to sale $\ldots$. | $\$ 440,000$ |
| :--- | :--- |
| Add to common stock, $\$ 5$ par x 2,000 shares.............. | 10,000 |
| Add to other paid-in capital, $\$ 45 \times 2,000$ shares...... | 90,000 |

Subsidiary Company shareholders' equity subsequent to sale $\$ 540,000$
Controlling interest subsequent to sale ( $85 \%$ of $\$ 540,000$ ) $\$ 459,000$
Controlling interest prior to sale (90\% of \$440,000)..... 396,000
Net increase in controlling interest....................... \$ 63,000

Increase in controlling interest over price paid......... \$ 3,000
========
Eliminations and Adjustments:
CY Eliminate the current-year entries made in the investment account and in the subsidiary income account.

EL Eliminate 85\% of Subsidiary Company equity balances at the beginning of the year against the investment account.

D Distribute the $\$ 45,000$ excess of cost over book value to the patent.

A Amortize the patent over 15 years. Charge the 20X1 amortization to retained earnings of Parent and the 20X2 amortization to operating expenses.

IS Eliminate the intercompany sale and purchase of merchandise.
EI Eliminate the intercompany gross profit in the ending inventory of Parent.

Consolidated Net Income:
To Noncontrolling Interest: . 15 x (80,000 - 4,000) = \$11,400
To Controlling Interest: 100,000 + [. $85 \times(80,000-4,000)]$ - 3,000 = \$161,600

DIF: D OBJ: 2
11. On January 1, 20X1, Parent Company purchased $80 \%$ of the common stock of Sub-One Company for $\$ 87,000$. On this date, Sub-One had common stock, other paid-in capital, and retained earnings of $\$ 10,000, \$ 20,000$, and \$60,000 respectively.

On January 1, 20X2, Parent Company purchased $90 \%$ of the common stock of Sub-Two Company for $\$ 73,500$. On this date, Sub-Two had common stock, other paid-in capital, and retained earnings of $\$ 5,000, \$ 30,000$, and \$40,000 respectively.

Any excess of cost over book value on either purchase is due to the patent, to be amortized over 15 years.

For both 20X1 and 20X2, Parent has accounted for both subsidiaries using the simple equity method.

On July 1, 20X2, Sub-One sold used equipment to Sub-Two. The equipment had a cost of $\$ 50,000$ and accumulated depreciation of $\$ 20,000$. The sale price was $\$ 36,000$. During the last half of $20 \times 2$, Sub-Two used the equipment, depreciating it over five years using the straight-line method.

During 20X2, Sub-Two sold merchandise to Sub-One for $\$ 10,000$, of which $\$ 5,000$ is still held by Sub-One on December 31, 20X2. Sub-Two's gross profit was $40 \%$.

Required:
Complete the Figure 8-8 worksheet for consolidated financial statements for 20X2.

ANS:
For the worksheet solution, please refer to Answer 8-8.
Eliminations and Adjustments:
CY1 Eliminate the current-year entries made in the investment account for Sub-One and in the subsidiary income account.

EL1 Eliminate 80\% of the Sub-One Company equity balances at the beginning of the year against the investment account.

D1 Distribute the $\$ 15,000$ excess of cost over book value to patent.

A1 Amortize the patent over 15 years, with \$1,000 for 20X1 charged to retained earnings, and \$1,000 for 20X2 to operating expenses.

CY2 Eliminate the current-year entries made in the investment account for Sub-Two and in the subsidiary income account.

EL2 Eliminate 90\% of the Sub-Two Company equity balances at the beginning of the year against the investment account.

D2 Distribute the $\$ 6,000$ excess of cost over book value to the patent.

A2 Amortize the patent over 15 years, with \$400 for 20X2 charged to operating expenses.

F1 Eliminate the intercompany gain on sale of equipment, restore the asset to cost and restore the old accumulated depreciation.

F2 Eliminate the excess depreciation of $\$ 600$ on the equipment for the last half of $20 \times 2$.

IS Eliminate the intercompany sales and purchases.
EI Eliminate the intercompany gross profit in the ending inventory.

Consolidated Net Income:

To Noncontrolling Interest Sub-One: . $2 \times(20,000-6,000+600)=$ \$2,920

To Noncontrolling Interest Sub-Two: . $1 \times(10,000-2,000)=\$ 800$
To Controlling Interest: $25,000+[.8 \times(20,000-6,000+600)]+$
$[.9 \times(10,000-2,000)]-1,000-400=\$ 42,480$

DIF: D OBJ: 4
12. On January 1, 20X1, Parent Company purchased $90 \%$ of the common stock of Sub-A Company for $\$ 90,000$. On this date, Sub-A had common stock, other paid-in capital, and retained earnings of $\$ 10,000, \$ 20,000$, and $\$ 60,000$ respectively.

On January 1, 20X2, Sub-A Company purchased $80 \%$ of the common stock of Sub-B Company for $\$ 68,000$. On this date, Sub-B Company had common stock, other paid-in capital, and retained earnings of $\$ 5,000, \$ 30,000$, and \$40,000 respectively.

Any excess of cost over book value on either purchase is due to a patent, to be amortized over ten years.

Both Parent and Sub-A have accounted for their investments using the simple equity method.

During 20X2, Sub-B sold merchandise to Sub-A for $\$ 20,000$, of which onefourth is still held by Sub-B on December 31, 20X2. Sub-B's usual gross profit is $40 \%$. During $20 \times 3$, Sub-B sold more goods to Sub-A for $\$ 30,000$, of which \$10,000 is still on hand on December 31, 20X3.

Required:
Complete the Figure 8-9 worksheet for consolidated financial statements for 20X3.

ANS:
For the worksheet solution, please refer to Answer 8-9.
Eliminations and Adjustments:
CY1 Eliminate the current-year entries made in the investment account for Sub-A and in the Sub-B income account.

EL1 Eliminate $90 \%$ of Sub-A Company equity balances at the beginning of the year against the investment account.

D1 Distribute the $\$ 9,000$ excess of cost over book value to the patent.

A1 Amortize the patent over 10 years, with \$1,800 for 20X1 and 20X2 charged to retained earnings of Parent and \$900 for 20X3 to operating expenses.

CY2 Eliminate the current-year entries made in the investment account for Sub-B and in the Sub-B income account.

EL2 Eliminate 80\% of Sub-B Company equity balances at the beginning of the year against the investment account.

D2 Distribute the $\$ 8,000$ excess of cost over book value to the patent.

A2 Amortize the patent over 10 years, with $\$ 800$ for 20X2 charged $10 \%$ to retained of Sub-A and $90 \%$ to Parent, and $\$ 800$ for 20X3 to operating expenses.

IS Eliminate the intercompany sales and purchases.
EI Eliminate the intercompany gross profit in the ending inventory.

BI Eliminate the intercompany gross profit in the beginning inventory (\$2,000) with debits to retained earnings of Sub-B for $20 \% \mathrm{x}(2,000)$ or $\$ 400$, to retained earnings of Sub-A for $10 \% \times(80 \% \times[2,000])$ or $\$ 160$, and to retained earnings of Parent for $90 \% \times(80 \%[2,000])$ or $\$ 1,440$.

Consolidated Net Income:
To Noncontrolling Interest Sub-B: $20 \% \times(12,500+2,000-4,000)=$ \$2,100

To Noncontrolling Interest Sub-A: 10\% x [20,000 + 80\% x (12,500 + $2,000-4,000)-800]=\$ 2,760$

To Controlling Interest: $30,000+90 \% \times[20,000+80 \% \times(12,500+$ $2,000-4,000)-800]-900=\$ 53,940$

DIF: D OBJ: 4
13. On January 1, 20X1, Parent Company purchased $90 \%$ of the common stock of Sub-A Company for $\$ 90,000$. On this date, Sub-A had common stock, other paid-in capital, and retained earnings of $\$ 10,000, \$ 20,000$, and $\$ 60,000$ respectively.

On January 1, 20X2, Sub-A Company purchased $80 \%$ of the common stock of Sub-B Company for $\$ 68,000$. On this date, Sub-B Company had common stock, other paid-in capital, and retained earnings of $\$ 5,000, \$ 30,000$, and \$40,000 respectively.

Any excess of cost over book value on either purchase is due to a patent, to be amortized over ten years.

Both Parent and Sub-A have accounted for their investments using the cost method.

On December 31, 20X1, Parent sold used equipment to Sub-A Company. The equipment had a cost of \$45,000 and accumulated depreciation of \$20,000. The sale price was \$30,000. During $20 \times 2$ and $20 \times 3$, Sub-A used the equipment, depreciating it over five years using the straight-line method.

During 20X2, Sub-B sold merchandise to Sub-A for $\$ 20,000$, of which onefourth is still held by Sub-B on December 31, 20X2. Sub-B's usual gross profit is 40\%. During 20X3, Sub-B sold more goods to Sub-A for $\$ 30,000$, of which $\$ 10,000$ is still on hand on December 31, 20X3.

Required:
Complete the Figure 8-10 worksheet for consolidated financial statements for 20X3.

ANS :
For the worksheet solution, please refer to Answer 8-10.
Eliminations and Adjustments:
CV Convert both investments to the simple equity method as of January 1, 20X3. The conversion for Sub-B is $\$ 6,400$ : $80 \%$ of the $\$ 8,000$ net increase in retained earnings in $20 \times 2$. The conversion for Sub-A is $\$ 35,100$ : $90 \%$ of the $\$ 39,000$ net increase in retained earnings in 20X1 and 20X2. The net increase for Sub-A is $\$ 92,600$ - 60,000 plus the equity conversion for Sub-B.

CY1 Eliminate the current-year dividend income of Parent against dividends declared by Sub-A.

EL1 Eliminate 90\% of Sub-A Company equity balances at the beginning of the year against the investment account.

D1 Distribute the $\$ 9,000$ excess of cost over book value to the patent.

A1 Amortize the patent over 10 years, with \$1,800 for 20X1 and 20X2 charged to retained earnings of Parent and \$900 for 20X3 to operating expenses.

CY2 Eliminate the current-year dividend income of Sub-A against dividends declared by Sub-B.

EL2 Eliminate $80 \%$ of Sub-B Company equity balances at the beginning of the year against the investment account.

D2 Distribute the $\$ 8,000$ excess of cost over book value to the patent.

A2 Amortize the patent over 10 years, with $\$ 800$ for 20x2 charged $10 \%$ to retained of Sub-A and $90 \%$ to Parent, and $\$ 800$ for 20X3 to operating expenses.

IS Eliminate the intercompany sales and purchases.
EI Eliminate the intercompany gross profit in the ending inventory.

BI Eliminate the intercompany gross profit in the beginning inventory ( $\$ 2,000$ ) with debits to retained earnings of Sub-B for $20 \% \times(2,000)$ or $\$ 400$, to retained earnings of Sub-A for $10 \% \times(80 \% \times[2,000])$ or $\$ 160$ and to retained earnings of Parent for $90 \% \times(80 \% \times[2,000])$ or $\$ 1,440$.

F1 Debit Retained Earnings of Parent to eliminate the remaining unrealized gain on sale of equipment from Parent to Sub-A: $\$ 5,000$ less 1,000 realized in 20X2. Restore the equipment to cost. In a single credit of $\$ 19,000$, restore the old accumulated depreciation of $\$ 20,000$ and eliminate the excess depreciation of $\$ 1,000$ for 20X2.

F2 Eliminate the excess depreciation on the equipment for 20X3.

Consolidated Net Income:

```
To Noncontrolling Interest Sub-B: 20\% x (12,500 + 2,000-4,000) =
    \$2,100
To Noncontrolling Interest Sub-A: 10\% x [20,000 + 80\% x (12,500 +
    2,000-4,000) - 800] = \$2,760
To Controlling Interest: \(30,000+1,000+90 \%\) x [20,000 + 80\%
                            \((12,500+2,000-4,000)-800]-900=\)
    \$54, 940
```

DIF: D OBJ: 4
14. On January 1, 20X1, Sub-A Company purchased $80 \%$ of the common stock of Sub-B Company for $\$ 56,000$, a price equal to book value. On this date, Sub-B Company had common stock, other paid-in capital, and retained earnings of \$5,000, \$30,000, and \$35,000 respectively.

On January 1, 20X2, Parent Company purchased $90 \%$ of the common stock of Sub-A Company for $\$ 108,000$. On this date, Sub-A had common stock, other paid-in capital, and retained earnings of $\$ 10,000, \$ 20,000$, and $\$ 80,000$ respectively. Any excess of cost over book value is due to a patent, to be amortized over 10 years.

Both Parent and Sub-A have accounted for their investments using the simple equity method.

During 20X2, Sub-B sold merchandise to Sub-A for $\$ 20,000$, of which onefourth is still held by Sub-B on December 31, 20X2. Sub-B's usual gross profit is $40 \%$. During $20 \times 3$, Sub-B sold more goods to Sub-A for $\$ 30,000$, of which \$10,000 is still on hand on December 31, 20X3.

Required:
Complete the Figure 8-11 worksheet for consolidated financial statements for 20X3.

ANS:
For the worksheet solution, please refer to Answer 8-11.
Eliminations and Adjustments:
CY1 Eliminate the current-year entries made in the investment account for Sub-A and in the Sub-B income account.

EL1 Eliminate $90 \%$ of Sub-A Company equity balances at the beginning of the year against the investment account.

D Distribute the $\$ 9,000$ excess of cost over book value to the patent.

A Amortize the patent over 10 years, with $\$ 900$ for $20 \times 2$ charged to retained earnings of Parent and $\$ 900$ for $20 \times 3$ to operating expenses.

CY2 Eliminate the current-year entries made in the investment account for Sub-B and in the Sub-B income account.

EL2 Eliminate 80\% of Sub-B Company equity balances at the beginning of the year against the investment account.

IS Eliminate the intercompany sales and purchases.
EI Eliminate the intercompany gross profit in the ending inventory.

BI Eliminate the intercompany gross profit in the beginning inventory $(\$ 2,000)$ with debits to retained earnings of Sub-B for $20 \% \times(2,000)$ or $\$ 400$, to retained earnings of Sub-A for $10 \% \times(80 \% \times 2,000)$ or $\$ 160$, and to retained earnings of Parent for $90 \% \times(80 \% \times 2,000)$ or $\$ 1,440$.

Consolidated Net Income:
To Noncontrolling Interest Sub-B: $20 \% \times(12,500+2,000-4,000)=$ \$2,100

To Noncontrolling Interest Sub-A: $10 \% \times[20,000+80 \% \times(12,500+$ $2,000-4,000)]=\$ 2,840$

To Controlling Interest: $30,000+90 \% \times[20,000+80 \% \times(12,500+$ $2,000-4,000)]-900=\$ 54,660$

DIF: D OBJ: 4
15. On January 1, 20X1, Parent Company purchased $85 \%$ of the common stock, 8,500 shares, of Subsidiary Company for $\$ 317,500$. On this date, Subsidiary had common stock, other paid-in capital, and retained earnings of $\$ 50,000, \$ 100,000$, and $\$ 200,000$ respectively.

On January 1, 20X2, Subsidiary purchased, from its remaining shareholders, 1,000 shares of its common stock, $10 \%$ of the stock outstanding on that date. The price paid was $\$ 44,000$.

Any excess of cost over book value is due to goodwill.
In both 20X1 and 20X2, Parent has accounted for the Investment in Subsidiary using the simple equity method.

During the last quarter of 20X2, Subsidiary sold merchandise to Parent for $\$ 40,000, \$ 10,000$ of which is still held by Parent on December 31, 20X2. Subsidiary's usual gross profit on intercompany sales is $40 \%$.

Required:
Complete the Figure 8-12 worksheet for consolidated financial statements for the year ended December 31, 20X2. Consolidation procedures should treat the purchase of the treasury stock as an additional interest purchased by the parent.

ANS:
For the worksheet solution, please refer to Answer 8-12.
Goodwill on each block purchased:
$85 \%$ block: $317,500-.85 \times(50,000+100,000+200,000)=\$ 20,000$
10\% block: $44,000-.10 \times(50,000+100,000+250,000)=\$ 4,000$
Eliminations and Adjustments:
CY Eliminate the current-year entries made in the investment account and in the subsidiary income account.

EL Eliminate $85 \%$ of the Subsidiary Company equity balances at the beginning of the year against the investment account.

D1 Distribute the $\$ 20,000$ excess of cost over book value to goodwill.

ELT Eliminate $10 \%$ of the Subsidiary Company equity balances at the beginning of the year against the treasury stock account.

D2 Allocate the $\$ 4,000$ excess of cost over book value to goodwill.

IS Eliminate the intercompany sale and purchase.
EI Eliminate the intercompany gross profit in the ending inventory of Parent.

Consolidated Net Income:
To Noncontrolling Interest: . $05 \times(60,000-4,000)=\$ 2,800$
To Controlling Interest: $110,000+.95 \times(60,000-4,000)=\$ 163,200$

DIF: D OBJ: 3
16. On January 1, 20X1, Parent Company purchased $85 \%$ of the common stock of Subsidiary Company for $\$ 317,500$. On this date, Subsidiary had common stock, other paid-in capital, and retained earnings of $\$ 50,000$, \$100, 000, and \$200,000 respectively.

Any excess of cost over book value is due to goodwill.
In both 20X1 and 20X2, Parent has accounted for the Investment in Subsidiary using the simple equity method.

On January 1, 20X2, Subsidiary purchased from outside investors 800 shares of the common stock of Parent Company, 8\% of Parent's outstanding stock, for $\$ 60,000$. It is expected that the shares may be resold at a later date. Subsidiary uses the cost method in accounting for the investment.

During the last quarter of $20 \times 2$, Subsidiary sold merchandise to Parent for $\$ 40,000$, $\$ 10,000$ of which is still held by Parent on December 31, 20X2. Subsidiary's usual gross profit on intercompany sales is $40 \%$.

Required:
Complete the Figure 8-13 worksheet for consolidated financial statements for the year ended December 31, 20X2. Use the treasury stock method for the Investment in Parent Company.

ANS :
For the worksheet solution, please refer to Answer 8-13.
Eliminations and Adjustments:
CY1 Eliminate the current-year entries made in the investment account and in the subsidiary income account.

E1 Eliminate 85\% of the Subsidiary Company equity balances at the beginning of the year against the investment account.

D Distribute the $\$ 20,000$ excess of cost over book value to goodwill.

IS Eliminate the intercompany sale and purchase.
EI Eliminate the intercompany gross profit in the ending inventory of Parent.

CY2 Eliminate the current-year dividend income of Subsidiary against dividends declared by Parent.

TS Reclassify the Investment in Parent Company as treasury stock.

Consolidated Net Income:
To Noncontrolling Interest: $.15 \times(60,000-4,000)=\$ 8,400$
To Controlling Interest: 110,000 + . $85 \times(60,000-4,000)$ = \$157,600

DIF: D OBJ: 5
[[Insert FIGURE 8-1 from Excel spreadsheet]]
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[[Insert ANSWER 8-13 from Excel spreadsheet]]

## Chapter 9 - The International Accounting Environment Module: Derivatives and Related

## MULTIPLE CHOICE

1. The Internal Revenue Code regulates transfer pricing in the United States by encouraging the use of a transfer price that
a. reflects what the price would have been if the underlying transaction was between unrelated parties.
b. shifts all income to the United States based company.
c. maximizes parent taxable income regardless of where the parent corporation is incorporated.
d. shifts all income to the highest income tax jurisdiction.

ANS: A DIF: E OBJ: 10
2. A manufacturer produced a good with a value of 250, the retailer added 125 to the value of the good. Assuming the value added tax rate is $15 \%$ the net value added tax due to the government by the retailer is
a. 37.50
b. 18.75
c. 56.25
d. 0

ANS: B
DIF: M
OBJ: 10
3. A manufacturer produced a good with a value of 300 , the retailer added 140 to the value of the good. Assuming the value added tax rate is $10 \%$ the final price to the consumer would be
a. 470
b. 484
c. 517
d. 454

ANS: B
DIF: M
OBJ: 10
4. Parent Corporation is located in a country with an income tax rate of 40\%. Subsidiary Company is located in a country with an income tax rate of $25 \%$. The best tax strategy for the enterprise would be to set the transfer prices on sales of goods from the subsidiary to the parent at a price that is
a. higher than the price that would be in effect for unrelated parties in an arms length transaction.
b. lower than the price that would be in effect for unrelated parties in an arms length transaction.
c. equal to the price that would be in effect for unrelated parties in an arms length transaction.
d. transfer prices do not affect overall tax paid.

ANS: A
DIF: M
OBJ: 10
5. The International Accounting Standards Board (IASB) works to formulate international accounting standards that are adopted by each country
a. when approved by the IASB.
b. when accepted by the majority of IASB member countries
c. on a voluntary basis.
d. only after acceptance by $2 / 3$ of IASB member countries.

ANS: C DIF: E OBJ: 9
6. Latin accounting principles tend to result in
a. very conservative accounting measurements.
b. less descriptive and more secretive accounting disclosure.
c. high reliance on historical cost measures.
d. a low level of constancy with tax regulations.

ANS: A DIF: E OBJ: 5
7. When accounting for investments using the equity method, which country's accounting system determines significant influence when an investor has acquired more than $10 \%$ of the voting stock?
a. United States
b. Mexico
c. Japan
d. Germany

ANS: B DIF: E OBJ: 5
8. The main difference between U.S. accounting standards and international accounting standards when accounting for plant, property and equipment is
a. international accounting standards require the use of current fair value with changes recognized in equity only.
b. U.S. accounting standards do not allow the write-down of assets due to impairment.
c. international accounting standards allow plant, property and equipment to be stated at current fair value with changes recognized in income or equity.
d. U.S. accounting standards allow plant, property and equipment to be stated at current fair value with changes recognized in income or equity.

ANS: C DIF: E OBJ: 9
9. Which of the following statements best differentiates multinational
firms from domestic firms?
a. Multinational firms have overseas sales offices.
b. Multinationals engage in both importing and exporting.
c. Multinational firms have one or more plant(s) in a foreign country.
d. Multinational business people make use of worldwide sales, capital, and labor markets.

ANS: D
DIF: M
OBJ: 1
10. Which of the following factors has NOT influenced the development of accounting practices in various nations?
a. the political environment
b. economic development
c. cultural background
d. all of these factors have influenced the development of accounting practices

ANS: D DIF: E OBJ: 4
11. Which of the following accounting areas is NOT significantly affected by international activity?
a. overhead allocation
b. recognition principles
c. auditing standards
d. all are significantly affected

ANS: A
DIF: M
OBJ: 3
12. Why would a U.S. manufacturing firm select a foreign site for one of its plants?
a. The site is closer to the product market area
b. Labor costs are more favorable
c. The foreign country's tax environment is more attractive
d. All of these factors could influence a firm's decision to manufacture overseas.

ANS: D DIF: E OBJ: Introduction \& 1
13. Which of the following countries has accounting standards that most result in consistency with the country's tax accounting policies?
a. Mexico
b. United Kingdom
c. United States
d. Israel

ANS: D
DIF: E
OBJ: 5
14. Which of the following countries has the strongest requirements concerning inflation-adjusted financial statements?
a. France
b. Brazil
c. Canada
d. United States

ANS: B DIF: E OBJ: 5
15. Which of the following accounting situations is treated virtually identically under both U.S. and International accounting standards?
a. earnings per share
b. inventory
c. plant, property and equipment
d. business combinations

ANS: A DIF: E OBJ: 9
16. A value added tax generally results in
a. taxes applied only at the wholesale level.
b. taxes applied at each stage of production.
c. taxes applied only at the retail level.
d. double taxation of distributions to owners.

ANS: B DIF: E OBJ: 10
17. The most significant difference between accounting principles used in Brazil and those employed in the United States is
a. accounting for inflation.
b. depreciation accounting.
c. the fact that consolidated financial statements are not issued in Brazil.
d. the fact that Brazilian corporations do not pay income tax.

ANS: A DIF: E OBJ: 5
18. Which of the following does not describe a cultural classification used to describe accounting systems?
a. Nordic accounting
b. Latin accounting
c. North American accounting
d. Asian accounting

ANS: C DIF: E OBJ: 5
19. Which of the following countries has tax regulations that do not permit LIFO inventory valuation?
a. Germany
b. United States
c. United Kingdom
d. LIFO is not permitted for tax purposes in any of these countries.

ANS: C
DIF: E
OBJ: 5
20. Which of the following countries uses tax rules to determine if leases should be capitalized for accounting purposes?
a. Germany
b. Japan
c. United Kingdom
d. All of these countries uses tax rules to determine capitalization.

ANS: A DIF: E OBJ: 5
21. In which country is the capitalization of research and development costs permitted, under certain conditions?
a. Germany
b. United States
c. Mexico
d. Under certain circumstances, capitalization is permitted in all three countries.

ANS: B DIF: E OBJ: 5
22. In which of the following countries are both increases and decreases in the fair value of plant, property and equipment recognized?
a. United States
b. Germany
c. Japan
d. United Kingdom

ANS: D
DIF: E
OBJ: 5
23. Which of the following has not led to an increase in the demand for audited financial statements?
a. growth in the corporate form of business
b. an increase in global capital needs
c. an increase in investor bases
d. an increase in global tax rates

ANS: D DIF: M OBJ: 4
24. Which of the following is not an objective of the International

Accounting Standards Board (IASB)?
a. to establish legally enforceable accounting standards to govern international business
b. to formulate and publish accounting standards to be observed in the presentation of financial statements
c. to work for the harmonization of accounting standards
d. all are objectives of the IASB

ANS: A
DIF: E
OBJ: 9
25. The Securities and Exchange Commission requires foreign companies
seeking to sell securities on U.S. stock markets to
a. reconcile its financial statements to U.S. GAAP.
b. reconcile its financial statements to U.S. tax regulations.
c. provide financial statements prepared according to U.S. GAAP.
d. provide investors details of differences between U.S. accounting standards and International accounting standards.

ANS: A
DIF: E
OBJ: 7
26. The IASB has established "benchmark" accounting methods. Companies adopting methods other than benchmark methods will
a. receive an adverse audit opinion.
b. be banned from transacting business with international banks.
c. be encouraged to provide a reconciliation of results restating them under the benchmark method.
d. be fined by an amount based on the magnitude of the departure from the benchmark method.

ANS: C
DIF: E
OBJ: 9
27. Which of the following accounting methods, commonly employed in the United States, is discouraged by the IASB?
a. the general expensing of research and development costs
b. LIFO inventory valuation
c. capitalization of certain leases
d. disclosure of related-party transaction

ANS: B
DIF: M
OBJ: 9
28. How does the International Federation of Accountants (IFAC) differ from the International Accounting Standards Board (IASB)?
a. Adherence to IFAC standards is not voluntary.
b. The IFAC is concerned with financial reporting standards only.
c. The IFAC is dominated by the European Community (EC).
d. The IFAC is more concerned with encouraging the harmonization of accounting principles than with standard setting.

ANS: D
DIF: E
OBJ: 9
29. The European Community (EC) has established accounting directives. Unlike standards of other international bodies involved in standard setting, EC directives
a. are not voluntary.
b. do not allow consolidated financial statements.
c. do not apply to any U.S. firms.
d. are primarily auditing rather than accounting standards.

ANS: A DIF: M OBJ: 8
30. Which of the following would not be an advantage to American investors that would result from the harmonization of accounting standards?
a. Financial information will be more comparable.
b. Accounting principles will be more responsive to economic reality.
c. Accounting principles will be more responsive to national politics.
d. Firms will not be at an accounting advantage or disadvantage when seeking capital.

ANS: C
DIF: M
OBJ: 2

## ESSAY

1. How does a multinational corporation differ from a domestic firm involved in international business?

ANS:
A multinational firm has operations in several countries. These firms are involved regularly in manufacturing and/or distribution in a variety of nations. Multinational firms participate in international sales, labor, and capital markets.

Domestic firms involved in international business participate in foreign markets to a lesser degree. For example, a firm may be involved in sales only on an international level. Another firm may be involved in sales, labor, and capital marketing, but only occasionally.

DIF: E OBJ: 1
2. Explain the goal of harmonization of accounting systems.

ANS:
Comparability is the overall goal. Various parties want comparability for individual reasons. For example international labor unions may want to have comparable information for collective bargaining and policy decisions. Governmental bodies want to assess multinational enterprises' operations for taxing purposes. Investors are interested in as much disclosure of financial information to achieve the most effective allocation of capital among competing parties. And the International Organization of Securities Commissions is committed to encouraging international securities trading dependent of providing investors with comparable information.

DIF: E OBJ: 6
3. Why is the availability of comparable accounting statements important to multinational firms?

ANS:
Multinational firms need to measure the efficiency and effectiveness of their international subsidiaries, branches, and investment. Likewise, comparable financial information is needed to evaluate competing investment opportunities.

DIF: E OBJ: 2
4. Why will the formation of the European Union (EU) provide U.S. businesses with opportunities for growth?

ANS:
The EU will potentially be the largest single market in the world. With the liberalization of borders and tariff laws, goods will flow more freely. These factors could generate increased demand for U.S. goods and services.

DIF: M OBJ: 8
5. An issue that affects comparability between multinational corporations is the treatment of transfer pricing. Provide a description of transfer pricing and discuss the problems it creates.

ANS:
Transfer pricing describes the price at which goods or services are transferred or conveyed between units of a multinational enterprise. Problems are created when transfer prices are manipulated so that profit and other measures are not representative of an arms-length basis between unrelated parties.

DIF: E OBJ: 10
6. A Brazilian company has presented a set of financial statements to your client, a U.S. bank. The Brazilian firm is seeking help in financing a long-term lease. State three ways in which their statements will differ from the U.S. statements of which your client is familiar.

ANS:
The most significant difference is the inflation adjustments made to the Brazilian statement. Most nonmonetary assets, owner's equity, and depreciation are major items that are not valued following historical cost principles. LIFO inventory is not permitted, and all leases are accounted for as operating leases.

DIF: M OBJ: 5
7. Describe some driving forces for the international development of accounting.

ANS:
Growth of multinational companies which need comparable accounting standards to measure the effectiveness and efficiency of their various international subsidiaries, branches and/or other equity investments. The growth of international investing by institutions and individuals who need comparable financial information upon which to base their decisions.

DIF: E OBJ: 2
8. What are the two primary approaches to the harmonization of accounting standards? Which method would be more beneficial, and why?

ANS:
One approach to the harmonization of accounting standards is to let accounting evolve naturally as international business develops. As more business is conducted between nations, the parties needing comparable financial information will serve as an evolutionary force behind the harmonization of accounting standards. An alternative approach is not to wait for the evolutionary forces, but rather to promulgate and proscribe specific standards through a due process system. This latter approach is becoming dominant. It offers the benefits of being more timely and developing standards by design.

DIF: E OBJ: 8
9. A common method of taxation is the value added tax (VAT). Provide a description of how this tax is applied.

ANS:
The value added tax (VAT) is applied to the amount of value added at each stage or level from initial production to final sale to the individual consumer. The VAT incurred by a previous level reduces the cost of sales of the current level in order to determine the value added.

DIF: M OBJ: 10
10. Given the political nature of accounting standards setting in the U.S., what approach would you suggest to convince a U.S. policy maker of the need for international standards?

ANS:
Appropriate responses would include the following:
Information about foreign stock exchanges, such as the volume of transactions and their growth in the last 20 years.

Number of foreign firms traded in the U.S. exchanges.
Amount of international trade.

DIF: D OBJ: 2, 3, 4
11. U.S. accounting standards allow for several methods of accounting for similar transactions. In many other countries, only one method is allowed. Having discussed the various influences on accounting standards around the world, why do you think the U.S. standards are more likely to allow diversity?

ANS:
Since the U.S. accounting standards are not as closely linked to the federal tax code, greater flexibility is allowed. Other countries have one standard for reporting and for tax purposes.

DIF: D
OBJ: 4

## Chapter 10 - Foreign Currency Transactions

## MULTIPLE CHOICE

1. The best definition for direct quotes would be "direct quotes measure
a. how much foreign currency must be exchanged to receive 1 domestic currency."
b. current or spot rates."
c. how much domestic currency must be exchanged to receive 1 foreign currency."
d. exchange rates at a future point in time."

ANS: C DIF: E OBJ: 2
2. A U.S. company purchases medical lab equipment from a Japanese company. The Japanese company requires payment in Japanese yen. In this transaction, the yen would be referred to as the
a. domestic currency for the U.S. company.
b. denominated currency.
c. purchasing currency.
d. selling currency.

ANS: B DIF: M OBJ: 2
3. A U.S. company that has purchased inventory from a German vendor would be exposed to a net exchange gain on the unpaid balance if the
a. amount to be paid was denominated in dollars.
b. dollar weakened relative to the Euro and the Euro was the denominated currency.
c. dollar strengthened relative to the Euro and the Euro was the denominated currency.
d. U.S. company purchased a forward contract to buy Euros.

ANS: C DIF: M OBJ: 2
4. A U.S. company that has sold its product to a German firm would be exposed to a net exchange gain on the unpaid receivable if the
a. amount to be paid was denominated in dollars.
b. dollar weakened relative to the Euro and the Euro was the denominated currency.
c. dollar strengthened relative to the Euro and the Euro was the denominated currency.
d. U.S. company purchased a forward contract to buy Euros.

ANS: B
DIF: M
OBJ: 2
5. A bank dealing in foreign currency tells you that the foreign currency will buy you $\$ .80$ US dollars. The bank has given you
a. a direct quote.
b. an indirect quote.
c. the official (fixed) rate.
d. a forward rate.

ANS: A
DIF: E
OBJ: 2
6. When an economic transaction is denominated in a currency other than the entity's domestic currency, the entity must establish a
a. domestic rate.
b. hedge rate.
c. rate of currency change.
d. rate of exchange.

ANS: D DIF: E OBJ: 2
7. A forward exchange contract is being transacted at a premium if the current forward rate is
a. less than the expected spot rate.
b. greater than the expected spot rate.
c. less than the current spot rate.
d. greater than the current spot rate.

ANS: B DIF: M OBJ: 2
8. Which of the following factors influences the spread between forward and spot rates?
a. which currency is denominated as the domestic currency
b. the length of the forward exchange contract
c. the current cross rate between the two currencies
d. all are factors that may influence the spread

ANS: B DIF: M OBJ: 2
9. Foreign currency transactions not involving a hedge should be accounted for using
a. the one-transaction method.
b. the two-transaction method.
c. a hybrid of the one- and two-transaction methods.
d. either the one- or the two-transaction method (allowed by the FASB).

ANS: B DIF: E OBJ: 3
10. A transaction denominated in a foreign currency will most likely result
in gains and losses to the reporting entity if the
a. forward exchange contract is selling at a premium.
b. transaction is denominated and measured in the reporting entity's currency.
c. transaction takes place in a country with a tiered monetary system.
d. transaction is denominated in a foreign currency and measured in the reporting entity's currency.

ANS: D
DIF: M
OBJ: 3
11. Given the following information for a 90 day contract:

|  | US Dollars |  |
| :--- | :---: | :---: |
| Value Today |  | FC |
| Interest Rate | 450 |  |
| 3 months interest | 37.50 |  |
| Value in 3 months | $? ?$ | 87.50 |
| The spot rate today is 1FC $=.75$ | $? ?$ |  |

What will be the forward rate?
a. 1FC = . 75 US Dollars
b. 1FC $=.57$ US Dollars
c. 1FC $=.745$ US Dollars
d. 1FC = . 70 US Dollars

ANS: C
US Value in 3 months $=3,750+37.50=3,787.50$
FC Value in 3 months $=5,000+87.50=5,087.50$
Fwd rate $=3,787.50 / 5,087.50=.745$
DIF: D
OBJ: 2
12. A U.S. firm has purchased, for 50,000 FCs, an electric generator from a foreign firm. The exchange rates were $1 \mathrm{FC}=\$ 0.80$ on the delivery date and $1 \mathrm{FC}=\$ 0.76$ when the payable was paid. What is the final recorded value if the two-transaction method is used?
a. \$40,000
b. $\$ 38,000$
c. $\$ 42,000$
d. \$50, 000

ANS: A
DIF: M
OBJ: 3
13. A U.S. manufacturer has sold computer services to a foreign firm and received 200,000 foreign currency units (FCs). The exchange rates were 1 $F C=\$ .75$ on the date of the sale and $1 \mathrm{FC}=\$ .80$ when the receivable was settled. On the transaction date, the settlement exchange rate is estimated to be 1FC $=\$ .72$. By the settlement date, what is the total exchange gain or loss recorded for the transaction if the twotransaction method is used?
a. \$10,000 exchange gain
b. \$6,000 exchange loss
c. \$10,000 exchange loss
d. no gain or loss

ANS: A
DIF: M
OBJ: 3
14. A U.S. manufacturer has sold goods to a foreign firm for a sale price of 80,000FC on $12 / 15 / \mathrm{X} 1$. The invoice is due $1 / 15 / \mathrm{X} 2$. The U.S. Firm fiscal year is 12/31/X1. Given the following exchange rates, what gain or loss would the US firm record on 12/31?

| $12 / 15$ | $1 F C=\$ 0.60$ US Dollars |
| ---: | :--- |
| $12 / 31$ | $1 F C=\$ 0.65$ US Dollars |
| $1 / 15$ | $1 F C=\$ 0.63$ US Dollars |

a. loss of \$4,000
b. loss of $\$ 1,600$
c. gain of \$2,400
d. gain of $\$ 4,000$

ANS: D
DIF: M
OBJ: 3
15. Which of the following does not represent an exchange risk on an exposed position to a company transacting business with a foreign vendor?
a. transaction is denominated in foreign currency, settled at a future date
b. firm commitment to purchase inventory to be paid for in foreign currency
c. Forecasted foreign currency transaction with a high probability of occurrence
d. firm commitment to purchase inventory denominated in U.S. dollars
ANS: D DIF: E OBJ: 4
16. Exchange gains and losses on a forward exchange contract that covers the same time period as the transaction which it provides a hedge for should be recognized as
a. an extraordinary item.
b. part of the original sales transaction.
c. income from continuing operations.
d. income from continuing operations, but only if material.
ANS: C
DIF: E
OBJ: 5
17. On August 1, 20X1, an American firm purchased a machine costing 200,000, 000 yen from a Japanese firm to be paid for on October 1, 20X1. Also on August 1, 20X1, the American firm entered into a contract to purchase 200,000,000 yen to be delivered on October 1, 20X1, at a forward rate of 1 Yen $=\$ 0.00783$. The exchange rates were as follows:

Spot
August 1, 20X1......................... 1 Yen $=\$ 0.00781$
August 31, 20X1........................ 1 Yen $=\$ 0.00777$
October 1, 20X1........................ 1 Yen = \$0.00779
Which of the following statements is incorrect concerning the accounting treatment of these transactions?
a. The machine's final recorded value was $\$ 1,558,000$.
b. The beginning balance in the accounts payable was $\$ 1,562,000$.
c. An exchange gain on the accounts payable of $\$ 4,000$ was recognized on October 1, 20X1.
d. The value of the accounts payable just before payment, on October 1, 20X1, was \$1,558,000.

ANS: A DIF: M OBJ: 3, 5
18. Questions 18 and 19 utilize the following information.

On 6/1/X2, an American firm purchased a inventory costing 100,000 Canadian Dollars from a Canadian firm to be paid for on $8 / 1 / X 2$. Also on 6/1/X2, the American firm entered into a forward contract to purchase 100,000 Canadian dollars for delivery on 8/1/X2. The exchange rates were as follows:

|  | Spot |  | Forward |
| :---: | :---: | :---: | :---: |
| 6/1/X2 | . 1 CD = \$0.73 | 1 | CD $=$ \$0.74 |
| 6/30/X2 | . 1 CD $=\$ 0.70$ | 1 | $C D=\$ 0.75$ |
| 8/1/X2 | . $1 \mathrm{CD}=\$ 0.68$ |  | $C D=\$ 0.68$ |

The American firms fiscal year end is 6/30/X2. The changes in the value of the forward contract should be discounted at 8\%.

What is the value of the Forward Contract Receivable-FC on $6 / 1 / \mathrm{X} 2$ ?
a. \$73, 000
b. \$74,000
c. \$68,000
d. \$70,000

ANS: B DIF: D OBJ: 5
19. What is the value of the Forward Contract Receivable-FC on 6/30/X2?
a. \$75,000
b. $\$ 75,693$
c. $\$ 74,693$
d. \$74,993

ANS: B
Original value of Forward Contract Receivable-FC = $100,000 \times .74=74,000$
Current (6/30) value of the Forward Contract Receivable-FC = $100,000 \times .75=75,000$
Increase in value of Forward Contract Receivable = 1,000
Value of Receivable, discounted at $8 \%, n=1$

$$
1,000-(1,000 \times .08 / 12)=993
$$

Value of receivable $=74,000+993=74,993$
DIF: D OBJ: 5
20. The purpose of a hedge on an identifiable commitment where the US company is selling goods is to:
a. fix the basis of sales revenue to the date of the commitment
b. eliminate all exchange gains/losses from the date of commitment to the date of settlement
c. fix the basis of cost of goods sold to the date of commitment
d. eliminate any exchange gains/losses from the transaction date to the settlement date

ANS: A
DIF: M
OBJ: 4
21. Which of the following statements is not true regarding forward contracts that cover periods of time different from the settlement period (transaction date to the settlement date)?
a. If the forward contract expires before the settlement date, the gain or loss will partially offset the gain or loss on the foreign currency transaction.
b. If the forward contract expires after the settlement date, postsettlement date gains and losses are not recognized as components of current operating income.
c. Premium and discount are amortized over the life of the contract.
d. All of these statements are true.

ANS: B
DIF: M
OBJ: 4
22. Questions 22 \& 23 use the following information:

On 4/1/X3, a US Company commits to sell a piece of equipment to a French customer. At that time, the US company enters into a forward contract to sell foreign currency on $8 / 1 / X 3(120$ days). Delivery will take place $7 / 1 / X 3$ with payment due on $8 / 1 / X 3$. The fiscal year end for the company is 6/30/X3. The sales price of the equipment is 200,000 Euros. Various exchange rates are as follows:

|  | Spot | Forward |
| :---: | :---: | :---: |
| 4/1/X3 | $\overline{1 F C}=\$ 0.60$ | $\overline{1 F C}=\$ 0.58$ |
| 6/30/X3 | $1 F C=\$ 0.58$ | $1 F C=\$ 0.56$ |
| $\begin{aligned} & (\text { also } 7 / 1 / X 3) \\ & 8 / 1 / X 3 \end{aligned}$ | 1FC = \$0.55 | 1FC = \$0.55 |

Discount rate is 12\%.
What is the amount in the Firm Commitment account on 6/30/X3?
a. 4,000 debit
b. 8,000 debit
c. 4,000 credit
d. 10,000 credit

ANS: C
On 4/1:
Forward Contract Receivable - Dollars 116,000
Forward Contract Payable-FC
116, 000
On 6/30, fiscal year end, the value of the commitment has changed.
$4 / 1200,000 \times .60=120,000$ value of the sales revenue
$6 / 30200,000 \times .58=116,000$ value of the sale revenue
Loss on commitment (debit) results in a credit to Firm Commitment
DIF: D OBJ: 5
23. What is the value of Forward Contract Payable-FC on 6/30?
a. 112,000
b. 112, 040
c. 116,000
d. none of the above

ANS: B
Fwd value 4/1 200,000 x 0.58 116,000
Fwd value 6/30 200,000 x 0.56 112,000
Decrease in Fair Value 4,000
of Payable
PV of change: 3,960
$\mathrm{N}=1$, $\mathrm{i}=.12 / 12$
Discount $=4,000 \times .12 / 12=40$
Current value of fwd contract $=116,000-3,960=112,040$
DIF: D OBJ: 5
24. Which of the following statements is true concerning forward contracts classified as hedges of an identifiable foreign currency commitment?
a. Forward contracts used as hedges cannot exceed the foreign currency commitment.
b. Forward contracts cannot extend for a time period after the transaction date of the commitment.
c. The gain or loss traceable to the time period after the transaction date of the commitment should not be deferred.
d. None of these statements is true.

ANS: C DIF: M OBJ: 4
25. Which of the following is not true concerning the accounting for hedges
of forecasted transactions using an option?
a. An intrinsic value must be calculate throughout the hedge period
b. The accounting requires revaluing the market value of the option
c. The option fixes the value of the transaction to the date of the commitment.
d. All of these statements are true.

ANS: C DIF: E OBJ: 4
26. The accounting treatment given a cash flow hedge of a forecasted transaction continues unless:
a. The hedging relationship is no longer highly effective based on management policies.
b. The derivative instrument is sold, terminated, or exercised.
c. The derivative instrument is no longer designated as a hedge on a forecasted transaction.
d. all of these statements are true.

ANS: D DIF: M OBJ: 5
27. A United States based company that has not hedged an exposed asset position would experience an exchange gain if
a. forward rates increased.
b. forward rates decreased.
c. spot rates increased.
d. spot rates decreased.

ANS: C DIF: E OBJ: 5
28. In the accounting for forward exchange contracts, gains and losses are measured using either spot or forward rates. Which of the following statements concerning measurement of gains and losses is true?
a. The gains or losses in a hedge on an exposed asset will use the spot rate for the asset and the forward rate for the forward contract.
b. The gains or losses in a speculative hedge will use the forward rate throughout the contract.
c. The gains or losses in a hedge on an identifiable commitment will use the spot rate for the commitment and the forward rate for the forward contract.
d. All of these statements are true.

ANS: B DIF: M OBJ: 5
29. The time value of an option is the difference between the
a. premium paid and its current rate.
b. premium paid and its intrinsic value.
c. exercise price and its current rate.
d. call option price and the put option price.

ANS: B DIF: M OBJ: 5
30. The two distinguishing characteristics of a financial instrument are
a. one or more options and one or more exchange rates.
b. one or more underlyings and one or more notional amounts.
c. cash flows and economic exchange.
d. a per share price and a quantity.

ANS: B DIF: M OBJ: 2
31. Hugh, Inc. purchased merchandise for 300, 000 FC from a British vendor on November 30, 20X3. Payment in British pounds is due January 31, 20X4. Exchange rates to purchase 1 FC is as follows:

|  | Nov. 30, 20X3 | Dec. 31, 20X3 |
| :---: | :---: | :---: |
| Spot | \$1.65 | \$1.62 |
| 30 day. | \$1.64 | \$1.59 |
| 60 day. | \$1.63 | \$1.56 |

In the December 31, 20X3 income statement, what amount should Hugh report as foreign exchange gain from this transaction?
a. \$12,000
b. \$9,000
c. $\$ 6,000$
d. \$0

ANS: B
DIF: M
OBJ: 3
32. Wild, Inc. sold merchandise for 500,000 FC to a foreign vendor on November 30, 20X5. Payment in foreign currency is due January 31, 20X6. Exchange rates to purchase 1 foreign currency unit are as follows:

|  | Nov. 30, 20X5 | Dec. 31, 20X5 | Jan. 31, 20X6 |
| :---: | :---: | :---: | :---: |
| Spot | \$1.49 | \$1.45 | \$1.44 |
| 30 day. | \$1.48 | \$1.43 | \$1.43 |
| 60 day. | \$1.46 | \$1.41 | \$1.42 |

In the year in which the sale was made, 20X5, what amount should Wild report as foreign exchange gain/loss from this transaction?
a. \$25,000
b. \$20,000
c. \$5,000
d. \$0

ANS: B
DIF: M
OBJ: 3
33. Pile, Inc. purchased merchandise for 500,000 FC from a foreign vendor on November 30, 20X5. Payment in foreign currency is due January 31, $20 \times 6$. On the same day, Pile signed an agreement with a foreign exchange broker to buy 500,000 FC on January 31, 20X4. Exchange rates to purchase 1 FC are as follows:

|  | Nov. 30, 20X5 | Dec. 31, 20X5 | Jan. 31, 20X6 |
| :---: | :---: | :---: | :---: |
| Spot | \$1.49 | \$1.45 | \$1.44 |
| 30 day. | \$1.48 | \$1.43 | \$1.43 |
| 60 day. | \$1.46 | \$1.41 | \$1.42 |

What will be the adjustment to the account payable included in the journal entry record on November 30, 20X5?
a. \$20,000 debit
b. \$20,000 credit
c. \$30,000 debit
d. \$0

ANS: A
DIF: M
OBJ: 5
34. Larson, Inc. sold merchandise for 600,000 FC to a foreign vendor on November 30, 20X5. Payment in foreign currency is due January 31, 20X6. On the same day, Larson signed an agreement with a foreign exchange broker to sell 600,000 FC on January 31, 20X6. Exchange rates to purchase 1 FC are as follows:

|  | Nov. 30, 20X5 | Dec. 31, 20X5 | Jan. 31, 20X6 |
| :---: | :---: | :---: | :---: |
| Spot | \$1.49 | \$1.46 | \$1.43 |
| 30 day | \$1.48 | \$1.43 | \$1.44 |
| 60 day | \$1.47 | \$1.40 | \$1.42 |

What will be the amount of the Forward Contract Receivable-Dollars on November 30, 20X5?
a. \$894,000
b. \$888, 000
c. $\$ 882,000$
d. $\$ 858,000$

ANS: C
DIF: D
OBJ: 5
35. Happ, Inc. agreed to purchase merchandise from a British vendor on November 30, 20X3. The goods will arrive on January 31, 20X4 and payment of 100,000 British pounds is due February 28, 20X4. On November 30, 20X3, Happ signed an agreement with a foreign exchange broker to buy 100, 000 British pounds on February 28, 20X4. Exchange rates to purchase 1 British pound are as follows:

|  | Nov. 30, 20X3 | Dec. 31, 20X3 | Jan. 31, 20X4 | Feb. 28, 20X4 |
| :---: | :---: | :---: | :---: | :---: |
| Spot.. | \$1.65 | \$1.62 | \$1.59 | \$1.57 |
| 30 day. | \$1.64 | \$1.59 | \$1.60 | \$1.59 |
| 60 day. | \$1.63 | \$1.56 | \$1.58 | \$1.58 |

Because of this commitment hedge, Happ, Inc. will record the merchandise at what value when it arrives in January?
a. $\$ 165,000$
b. $\$ 164,000$
c. $\$ 160,000$
d. $\$ 159,000$

ANS: A DIF: M OBJ: 5
36. In a hedge of a forecasted transaction, gains or losses on derivative instruments prior to the occurrence of the actual transaction should be reported as
a. a component of stockholders' equity.
b. a component of other comprehensive income.
c. an extraordinary item.
d. income from continuing operations.

ANS: B DIF: M OBJ: 5
37. Current disclosure requires users of hedging instruments to provide information about all of the following except
a. objectives of using hedging instruments.
b. descriptions of various types of hedges entered into.
c. the original cost of entering into the derivative instrument hedge.
d. how gains and losses are recognized in earnings or other comprehensive income.

ANS: C
DIF: M
OBJ: 5

## PROBLEM

1. Describe the risks and uncertainty a U.S. company faces when purchasing goods from a foreign corporation and settling the transaction in the foreign currency.

ANS:
Given that rates of exchange vary over time, there is uncertainty about how many U.S. dollars will be needed at settlement. Additionally, because exchange rates change over time, the U.S. company may need more dollars to settle the purchase, exposing the company to business risk.

DIF: E OBJ: 4
2. On September 15, 20X2, Wall Company, a U.S. firm, purchased a piece of equipment from a foreign firm for 500,000 FCs. Payment for the equipment was to be made in FCs on January $15,20 \times 3$. The spot rates on selected dates were as follows:

Date
9/15/X2.
12/31/X2
1/15/X3

Spot Rate
1 FC = \$0.30
1 FC = \$0.33
$1 \mathrm{FC}=\$ 0.315$

Required:
a. Assuming that the US Corp. has a December 31 year end, prepare the necessary journal entries to account for the series of transactions involving the purchase.
b. Prepare all the necessary journal entries assuming that the US Corp. will be paying for the equipment in U.S. dollars.

ANS:
a. Nov. 1

Inventory....................................... . ... 150, 000
Accounts Payable........................... 150,000
Dec. 31
Exchange Loss.................................. 15,000
Accounts Payable........................... 15,000
Jan. 15
Accounts Payable............................. . 165, 000
Exchange Gain................................. 7, 500
Investment in FC
157,500
b. Nov. 1

Inventory.............................................. . . 150, 000
Accounts Payable........................... 150,000
Dec. 31
No entry
Jan. 15
Accounts Payable............................... 150, 000
Cash......................................... 150,000

DIF: M OBJ: 3
3. On November 1, 20X1, DEMO Corp., a U.S. firm, sold merchandise to a foreign firm for 60, 000 FCs. DEMO will be paid on January 31, 20X2, in FCs. The spot rates on selected dates were as follows:

Date

| November 1, 20X1 | $1 \mathrm{FC}=\$ 0.50$ |
| :---: | :---: |
| December 31, 20X1 | $1 \mathrm{FC}=\$ 0.55$ |
| January 31, 20X2 | $1 \mathrm{FC}=\$ 0.53$ |

Required:
Assuming that DEMO has a December 31 year end, prepare the necessary journal entries to account for the series of transactions involving the sale.

ANS:
Nov. 1
Accounts Receivable.............................. 30,000
Sales.......................................... 30,000
Dec. 31
Accounts Receivable............................. 3,000
Exchange Gain................................. 3,000
Jan. 31

Exchange Loss................................... 1,200
Accounts Receivable
33, 000

DIF: M OBJ: 3
4. A U.S. Corp. purchased a computer from a French firm on July 1, 20X5, when a Euro cost \$0.25. The U.S. firm will be required to pay the French manufacturer 75,000 Euros on August 1, 20X5, when the Euro costs \$0.23.

Required:
Make the necessary journal entries for the U.S. firm on July 1 and August 1.

ANS:
July 1


Aug. 1
Accounts Payable........................................... . . . . 18,750
Exchange Gain......................................... 1, 180
Cash..................................................... 17,250

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DIF: E
OBJ: 3
```

5. On January 1, 20X1, a U.S. firm bought a truck from a foreign firm for 10,000 FCs, to be paid on March 1 in FCs. The spot rate was $1 \mathrm{FC}=\$ 1.25$ on January 1 and 1 FC $=\$ 1.265$ on March 1. To protect themselves from exchange rate changes, the U.S. firm entered into a forward exchange contract on January 1 to buy FCs on March 1 for $\$ 1.28$.

Required:
Make all the necessary journal entries to record the transactions for the U.S. firm on January 1 and March 1.

ANS:
Jan. 1
Truck....................................................... . . 12,500
Accounts Payable..................................... 12,500
Fwd Contract Receivable-FC.......................... . 12, 800
Fwd Contract Payable-\$
12,800
Mar. 1
Fwd Contract Payable-\$................................ 12,800 Cash

12,800
Investment in FCs........................................ 12, 650
Exchange Loss........................................ 150
Fwd Contract Receivable-FC

Investment in FCs
12,650

DIF: E OBJ: 3, 5
6. Explain how the risks differ for holders and writers of foreign exchange options. Additionally, describe the difference between American and European options. Finally, how is the intrinsic value of an option calculated?

ANS:
For a holder of an option, the total risk is limited to the premium paid and applicable brokerage fees, while the option has unlimited risk associated with exchange rate fluctuations which are not offset by the premium charged. "American" options can be exercised any time during the option period, whereas "European" options can only be exercised at maturity. The intrinsic value of an option represents the difference between the exercise price and the current rate.

DIF: E
OBJ: 4
7. For a hedge on an exposed position, describe the process of valuing the forward contract as the fiscal period end date.

ANS:
a. Calculate the fair value of the forward contract:

Original Fwd Value of Contract
Current Fwd Value of Contract Change gain (loss) in forward value
b. Calculate the present value of the change: Change in forward value discounted at a rate of interest/12 periods, for $\mathrm{n}=$ number of months until settlement
c. Calculate the change in present value:

Current Present value of contract Prior Present value of contract Change in Present Value
d. Split the change in present value between the gain/(loss) on spot values and the changes in time value

DIF: M OBJ: 5
8. Wolters Corporation is a U.S. corporation that purchased 50,000 chocolate bars from a foreign manufacturer on March 1, 20X9 for 80,000 foreign currency units, to be paid on April 30, 20X9. On March 1, 20X9 Wolters also entered into a forward contract to purchase 80,000 foreign currency units on April 30, 20X9. Wolters has a December 31 year end.

Exchange rates are as follows:

| Date | Spot Rate | Forward Rate |
| :---: | :---: | :---: |
| 3/1/X9. | \$0.69 | \$0.65 |
| 3/31/X9 | \$0.61 | \$0.65 |
| 4/30/X9 | \$0.66 | \$0.66 |

Required:
Prepare the journal entries to record the transactions through April 30, 20X9. March 31 is NOT a fiscal period end. Ignore the split between spot gain/loss and time value.

ANS:
Mar. 1

| Inventory | 55,200 |  |
| :---: | :---: | :---: |
| Accounts Payable |  | 55,200 |
| Fwd Contract Receivable-FC | 52,000 |  |
| Fwd Contract Payable-\$ |  | 52,000 |

Apr. 30
Accounts Payable ........................... 55, 200
Investment in FC ........................ 52,800
Exchange Gain
Investment in FC ......................... 52,800
Fwd Contract Receivable .............. 52,000
Exchange Gain ........................ 800

DIF: M OBJ: 3, 5
9. Describe the disclosures required by the FASB of firms using derivatives as foreign currency hedges.

ANS:
The FASB requires four basic disclosures:
(1) The objectives of using hedging instruments and the strategies for achieving the objective.
(2) A description of the various types of hedges such as fair value hedges and cash flow hedges.
(3) A description of the entity's risk management policy for hedging types along with a description of the types of transactions which are hedged.
(4) Detailed information regarding: the amount of gains/losses on hedges, where gains/losses are recognized-earnings or other comprehensive income, when gains/losses appearing in other comprehensive income will be recognized in earnings, where gains/losses recognized in earnings appear in the income statement, and gains/losses recognized due to a hedge no longer qualifying for hedge accounting.

DIF: M OBJ: 5
10. Rex Corporation, a U.S. firm with a calendar accounting year, agreed to buy a specially made truck from a Japanese firm for delivery on January 31, 20X2 with payment due on $2 / 28 / X 2$. On the same date the agreement was signed, November 1, 20X1, a forward contract due on February 28, 20X2, was also signed to purchase $1,000,000$ yen, the contract price of the truck. Exchange rates were as follows:


## Required:

Prepare the journal entries needed to properly reflect the purchase and forward contract through the end of the fiscal year.

ANS:

| Fwd Contract Receivable-FC | 7,800 |  |
| :---: | :---: | :---: |
| Fwd Contract Payable-\$ |  | 7,800 |
| Dec. 31 |  |  |
| Loss on Firm Commitment | 500 |  |
| Firm Commitment |  | 500 |
| Fwd Contract Receivable-FC | 500 |  |
| Unrealized Gain on Contract |  | 500 |
| Unrealized Loss on Contract | 302.67 |  |
| Fwd Contract Receivable-FC |  | 302 |


|  | 11/1 | 12/31 |
| :---: | :---: | :---: |
| \# of FC | 1,000,000 | 1,000,000 |
| Spot Rate | . 0076 | . 0081 |
| Fwd Rate-Remain | . 0078 | . 0080 |
| Fwd Rate-Original |  | . 0078 |
| Fair Value of Fwd Contract |  |  |
| Original Value |  | 7,800 |
| Current Value |  | 8,000 |
| Change; gain (loss) in value of Fwd Contract Rec |  | 200 |
| PV of change: |  |  |
| $\mathrm{n}=1, .08 / 12$ |  | 197.33 |
| $\mathrm{n}=0, .08 / 12$ |  |  |
| Change in PV: |  |  |
| Current PV |  | 197.33 |
| Prior PV |  | $\bigcirc$ |
| Change in PV |  | 197.33 |
| Change gain (loss) |  |  |
| in spot rates |  | 500.00 |
| Change in time |  | 302.67 |

DIF: M OBJ: 3, 5
11. On January 1, 20X1, a domestic firm agrees to sell goods to a foreign customer, with delivery to be made on March 1, 20X1. The goods, valued at 50,000 FCs, are to be paid for 30 days after delivery. On January 1, 20X1, the domestic firm purchased a 90-day forward contract to sell 50,000 FCs. Exchange rates on selected dates are as follows:

| Date |  | Spot Rate | Fwd Rate |
| :---: | :---: | :---: | :---: |
| 1/1/X1 | 1 | $\mathrm{FC}=\$ 1.00$ | $\overline{1 F C}=\$ 0.99$ |
| 3/1/X1 | 1 | $\mathrm{FC}=\$ 0.98$ | $1 \mathrm{FC}=\$ 0.97$ |
| 4/1/X1 | 1 | $\mathrm{FC}=\$ 0.96$ | $1 \mathrm{FC}=\$ 0.96$ |

Discount rate = 10\%

Required:
Prepare the journal entries needed to properly reflect the sales transaction and the forward exchange contract. The forward contract meets the conditions necessary to be classified as a hedge on an identifiable foreign currency commitment. Include the table to calculate the split between exchange gains or losses on the contract due to changes in spot rates and the changes in time value.

ANS:


```
DIF: D
    OBJ: 3, 5
```

12. Wolters Corporation is a U.S. corporation that purchased 50,000 chocolate bars from a foreign manufacturer on 6/1/X9 for 80,000 foreign currency units, to be paid on 9/1/X9. On 6/1/X9 Wolters also entered into a forward contract to purchase 80,000 foreign currency units on 9/1/X9. Wolters has a July 31 year end.

Exchange rates are as follows:

| Date | Spot Rate | Fwd Rate |
| :---: | :---: | :---: |
| 6/1/X9. | \$0.64 | \$0.645 |
| 7/31/X9 | \$0.66 | \$0.68 |
| 9/1/X9. | \$0.69 | \$0.69 |
| Discount |  |  |

Make the necessary journal entries for Wolters for the period June 1 through September 1, 20X9.

ANS:
June 1
Inventory ..................................... 51, 200
Accounts Payable
Fwd Contract Receivable-FC...................... 51,600
Fwd Contract Payable-\$.
51,600
July 31
Exchange Loss .................................. 1,. 600
Accounts Payable............................ 1,600
Fwd Contract Receivable-FC...................... 1, 600 Unrealized Gain on Contract................... 1, 600

Fwd Contract Receivable-FC..................... 1,172 Unrealized Gain on Contract...................

1,172
Sept. 1
Accounts Payable.................................... 52,800
Exchange Loss ................................. 2,400
Inv in FC
55,200
Fwd Contract Receivable-FC .................... 2,400 Unrealized Gain on Contract.................. 2,400

Unrealized Exchange Loss......................... 1,. 572
Fwd Contract Receivable-FC

55, 200
Inv in Foreign Currency
55,200
Fwd Contract Payable-\$.......................... 51,600 Cash

51,600

|  | 6/1 | 7/31 | 9/1 |
| :---: | :---: | :---: | :---: |
| \# of FC | 80,000 | 80,000 | 80,000 |
| Spot Rate | . 64 | . 66 | . 69 |
| Fwd Rate-Remain | . 645 | . 68 | . 69 |
| Fwd Rate-Original |  | . 645 | . 645 |
| Fair Value of Fwd Contract: |  |  |  |
| Original |  | 51,600 | 51,600 |
| Current |  | 54,400 | 55,200 |
| Change-Gain(loss) in Fwd Value |  | 2,800 | 3,600 |
| Present Value of Change: |  |  |  |
| $\mathrm{n}=1, \mathrm{i}=.12 / 12$ |  | 2,772 |  |
| $\mathrm{n}=2, \mathrm{i}=12 / 12$ |  |  | 3,600 |
| Change in Value: |  |  |  |
| Current Present Value |  | 2,772 | 3,600 |
| Prior Present Value |  | 0 | 2,772 |
| Change in Present Value |  | 2,772 | 828 |
| Change due to spot rate-Gain(loss) |  | 1,600 | 2,400 |
| Change in time-Gain(loss) |  | 1,172 | (1,572) |

DIF: D OBJ: 3, 5
13. Lion Corporation, a U.S. firm, entered into several foreign currency transactions during the year. Determine the effect of each transaction on net income for that current accounting year only. Bear has a June 30 year end.

Required:
a. On January 15, Lion sold $\$ 30,000$ (Canadian) in merchandise to a Canadian firm, to be paid for on February 15 in Canadian dollars. Canadian dollars were worth \$0.85 (U.S.) on January 15 and \$0.82 (U.S.) on February 15.
b. On June 1, Lion purchased and received a computer costing 100,000 euros from a German firm. Bear paid for the computer on August 1. On June 1, to reduce exchange risks, Lion purchased a contract to buy 100,000 marks in 60 days. Exchange rates are as follows:

6/1
6/30

Spot
$\$ 0.53$
\$0.54
Fwd
$\$ 0.60$
$\$ 0.58$

Discount rate $=6 \%$
C. On June 1, Lion purchased an option to sell 100,000 FC in 60 days to hedge a forecasted sale to a customer. The option sold for a premium of $\$ 6,500$ and a strike price of $\$ 1.20$. The value of the option 6/30 was $\$ 12,500$. The spot rate on $6 / 1$ was $\$ 1.19$ and at 6/30 \$1.25.

ANS:
a. Exchange loss on sale: \$900
b. Exchange loss on exposed payable..................... \$(1,000)

Unrealized gain on forward contract.................. 1, 000
Loss on time value......................................... $(2,990)$
Net loss......................................................... . $\$(2,990)$
=======
The value of the Forward Contract Receivable-FC on 6/30 is 58,000 compared to 60,000 on $6 / 1$, a loss in value of 2,000 . The present value of that change is 1,990(n = 1, I = .06/12) The difference between the present value of the loss and the gain on the spots results in a loss from time value of 2,990 (1,990 loss - 1,000 gain)
c. 6/30

Intrinsic Value: 100,000 FC x (1.25-1.20) = 5,000 reported in Other Comprehensive income, The remaining increase in value of the option of 1,000 (12,500-6,500 = 6,000 total increase in value)is a gain.

DIF: M OBJ: 5
14. Differentiate between the following monetary systems: floating system, controlled float system and tiered system.

ANS:
In a floating rate system, supply and demand primarily define currency exchange rate. In a controlled float system, the exchange rate is established and maintained by a nation's central bank. In a tiered system, a country establishes special exchange rates for certain transactions.

DIF: E OBJ: 1
15. On November 1, 20X1, a U.S. company purchased inventory from a foreign supplier for 100,000 FCs, with payment to be made on January 31, 20X2, in FCs. To hedge against fluctuations in exchange rates, the firm entered into a forward exchange contract on November 1 to purchase 100, 000 FCs on January 31, 20X2. The U.S. firm has a December 31 year end for accounting purposes. The following exchange rates may apply:

| Date | Spot Rate | Fwd Rate |
| :---: | :---: | :---: |
| 11/1/X1 | \$0.15 | \$0.13 |
| 12/31/X1 | \$0.16 | \$0.14 |
| 1/31/X2 | \$0.165 | \$0.165 |

Discount rate $=12 \%$

Required:

Make all the necessary journal entries for the U.S. firm relative to these events occurring between November 1, 20X1, and January 31, 20X2.

ANS:


DIF: M OBJ: 3, 5
16. On November 1, 20X1, a U.S. company sold merchandise to a foreign firm for 100,000 FCs with payment to be made on January 31, 20X2, in FCs. To hedge against fluctuations in exchange rates, the firm entered into a forward exchange contract on December 1, 20X1 to sell 100,000 FCs on January 31, 20X2. The U.S. firm has a December 31 year end for accounting purposes. The following exchange rates may apply:

| Date |
| :---: |
| 11/1/X1. |
| 12/1/X1 |
| 12/31/X1 |
| 1/31/X2 |
| Discount |

## Required:

Make all the necessary journal entries for the U.S. firm relative to these events occurring between November 1, 20X1, and January 31, $20 \times 2$.

ANS:

| Nov. 1 |  |  |
| :---: | :---: | :---: |
| $\overline{\text { Accounts Receivable. }}$ | 15,000 |  |
| Sales |  | 15,000 |
| Dec. 1 |  |  |
| Accounts Receivable | 500 |  |
| Exchange Gain |  | 500 |
| Fwd Contract Receivable-\$ | 17,000 |  |
| Fwd Contract Payable-FC |  | 17,000 |
| Dec. 31 |  |  |
| Accounts Receivable | 500 |  |
| Exchange Gain. |  | 500 |
| Unrealized Loss on Contract | 500 |  |
| Fwd Contract Payable-FC |  | 500 |
| Fwd Contract Payable-FC. | 4 |  |
| Unrealized Gain on Contract |  | 4 |
| Jan. 31 |  |  |
| Inv in FC. | 16,500 |  |
| Accounts Receivable |  | 16,000 |
| Exchange Gain. |  | 500 |
| Unrealized Loss on Contract | 500 |  |
| Fwd Contract Payable-FC. |  | 500 |
| Fwd Contract Payable-FC. | 1,496 |  |
| Unrealized Exchange Gain. |  | 1,496 |


| Fwd Contract Payable-FC. |  | 16,500 |  |
| :---: | :---: | :---: | :---: |
| Inv in Foreign Currency |  |  | 16,500 |
| Cash ............................................. ${ }^{\text {a }}$ 17,000 |  |  |  |
| Fwd Contract Receivable-\$..................... 17,000 |  |  |  |
|  | 12/1 | 12/31 | 1/31 |
| \# of FC | 100,000 | 100,000 | 100,000 |
| Spot Rate | . 155 | . 16 | . 165 |
| Fwd Rate-Remain | . 17 | . 175 | . 165 |
| Fwd Rate-Original |  | . 17 | . 17 |
| Fair Value of Fwd Contract: |  |  |  |
| Original |  | 17,000 | 17,000 |
| Current |  | 17,500 | 16,500 |
| Change-Gain(loss) in Fwd Value |  | (500) | 500 |
| Present Value of Change: |  |  |  |
| $\mathrm{n}=1, \mathrm{i}=.10 / 12$ |  | (496) |  |
| $\mathrm{n}=2, \mathrm{i}=.10 / 12$ |  |  | 500 |
| Change in Value: |  |  |  |
| Current Present Value |  | (496) | 500 |
| Prior Present Value |  | 0 | (496) |
| Change in Present Value |  | (496) | 996 |
| Change due to spot rate-Gain(loss) |  | (500) | (500) |
| Change in time-Gain(loss) |  | 4 | 1,496 |

```
DIF: M OBJ: 3, 5
```

17. Zerlie's Imports purchased automotive parts from a German firm on July 1, 20X1. The parts cost 150,000 Euros to be paid for on August 15. To pay for the parts, Zerlie's Imports borrowed 150,000 euros from a German bank on July 16. The loan bears an $11 \%$ interest rate to be repaid on August 15 in euros.

Another option would have been for Zerlie's to have hedged the purchase with a forward exchange contract on July 1 to buy 150,000 euros at a forward rate of $\$ 0.67$. Exchange rates were as follows:

| Date | Spot Rate |
| :---: | :---: |
| July 1, 20X1 | $1 \mathrm{M}=\$ 0.65$ |
| July 16, 20X1 | $1 \mathrm{M}=\$ 0.60$ |
| August 15, 20X1 | $1 \mathrm{M}=\$ 0.62$ |

Required:
a. Compute the effect on net income assuming the following:
(1) Zerlie did not borrow to pay for the transaction or hedge the transaction on July 1.
(2) Zerlie borrowed from the German bank on July 16.
(3) Zerlie hedged the full purchase on July 1.
**ignore present values and discount rates
b. Determine which of these three alternatives would have been the best for Zerlie under the situation described.

ANS:
a.

|  | 1 | 2 | 3 |
| :---: | :---: | :---: | :---: |
|  | No Loan |  |  |
|  | or Hedge | Loan | Hedge |
| Exchange gain on accounts payable. | \$4,500 | \$ 4,500 | \$ 4,500 |
| Gain on euros. |  | 3,000 |  |
| Interest expense |  | (853) |  |
| Loss on loan. |  | $(3,000)$ |  |
| Loss on hedge |  |  | $(4,500)$ |
| Premium on hedge |  |  | $(3,000)$ |
|  | \$4,500 | \$ 3,647 | \$(3,000) |

b. Zerlie would have been better off if he had exposed his liability to the market rather than attempted to hedge or borrow.

DIF: D OBJ: 3, 4, 5
18. Bulldog Enterprise, a U.S. firm, agreed on February 1, 20X1, to buy gears from a Mexican firm for 75,000 pesos. Delivery is scheduled for April 1, 20X1, with payment due on May 1, 20X1. On February 1, 20X1, Bulldog also acquired a forward contract to buy 75,000 pesos on May 1, 20X1. (The gears represent inventory to the U.S. firm.) There are no fiscal period ends.

Required:
Prepare the journal entries necessary for Bulldog Enterprise to record this activity. Assume that the following exchange rates existed:

| Date | Spot Rate | Forward Rat |
| :---: | :---: | :---: |
| February 1, 20X1 | 1 peso = \$0.223 | 1 peso = \$0.227 |
| April 1, 20X1 | 1 peso = \$0.228 | 1 peso = \$0.230 |
| May 1, 20X1 | 1 peso = \$0.226 | peso $=\$ 0.22$ |

Discount rate = 15\%

ANS:


```
DIF: D
    OBJ: 3, 5
```

19. On November 1, $20 \times 8$ Desket, Inc. a U.S. company agreed to sell goods to a foreign buyer for $200,000 \mathrm{FC}$. The goods were to be shipped on December 1 with payment to be received January 31, $20 \times 9$.

The hedging contract, signed on November 1, 20X8, called for the sale of 200, 000 FC on January 31, 20X9. Assume the December 31 is fiscal year end. Exchange rates are as follows:

|  | Spot Rate | Fwd Rate |
| :---: | :---: | :---: |
| 11/1/X8 | \$0.66 | \$0.69 |
| 12/1/X8 | \$0.67 | \$0.68 |
| 12/31/X8 | \$0.65 | \$0.66 |

Discount rate = 12\%

Required:
Prepare all necessary entries through December 31, 20X8 for the commitment hedge and sale.

ANS:
Nov. 1
Fwd Contract Receivable-\$........................ 138,000
Fwd Contract Payable-FC
138,000
Dec. 1
Firm Commitment................................. . 2, 000
Gain on Firm Commitment.........................
2,000
Unrealized Loss on Contract...................... 2,000
Fwd Contract Payable-FC
2,000
Fwd Contract Payable-FC......................... 3, 980 Unrealized Gain on Contract .................. 3,980

Accounts Receivable.............................. 134,000
Firm Commitment............................... 2,000
Sales
132,000
Dec. 31
Exchange Loss................................... 4,000
Accounts Receivable.......................... 4,000
Fwd Contract Payable-FC ....................... 4,000 Unrealized Gain on Contract.................. 4,000

Fwd Contract Payable-FC ......................... 20 Unrealized Gain on Contract

20

|  | 11/1 | 12/1 | 12/31 |
| :---: | :---: | :---: | :---: |
| \# of FC | 200,000 | 200,000 | 200,000 |
| Spot Rate | . 66 | . 67 | . 65 |
| Fwd Rate-Remain | . 69 | . 68 | . 66 |
| Fwd Rate-Original |  | . 69 | . 69 |
| Fair Value of Fwd Contract: |  |  |  |
| Original |  | 138,000 | 138,000 |
| Current |  | 136,000 | 132,000 |
| Change-Gain(loss) in Fwd Value |  | 2,000 | 6,000 |
| Present Value of Change: |  |  |  |
| $\mathrm{n}=1, \mathrm{i}=.12 / 12$ |  | 1,980 |  |
| $\mathrm{n}=2, \mathrm{i}=.12 / 12$ |  |  | 6,000 |
| Change in Value: |  |  |  |
| Current Present Value |  | 1,980 | 6,000 |
| Prior Present Value |  | 0 | 1,980 |
| Change in Present Value |  | 1,980 | 4,020 |
| Change due to spot rate-Gain(loss) |  | (2,000) | 4,000 |
| Change in time-Gain(loss) |  | 3,980 | 20 |

DIF: D OBJ: 3, 5
20. Red \& Blue Company, a U.S. corporation, agreed to purchase merchandise from a British vendor on January 1, 20X4. The goods will be shipped on January 31, 20X4 and payment of 200,000 British pounds is due February 28, 20X4. On January 1, USA signed an agreement with a foreign exchange broker to buy 200, 000 British pounds on February 28, 20X4. Exchange rates to purchase 1 British pound are as follows:

|  | Spot Rate | Fwd Rate |
| :---: | :---: | :---: |
| 1/1/X4 | \$1.65 | \$1.63 |
| 1/31/X4 | \$1.62 | \$1.605 |
| 2/28/X4 | \$1.59 | \$1.59 |

Discount Rate = 15\%

Required:
Journalize these transactions.

ANS:
Jan. 1
Fwd Contract Receivable-FC.................... 326,000
Fwd Contract Payable-\$
Jan. 31
Firm Commitment..................................... . . 6,000
Gain on Firm Commitment
nrealized Loss on Contract................... 6,000
Fwd Contract Receivable-FC
1,062
Unrealized Gain on Contract
330,000
Firm Commitment
Accounts Payable
Feb. 28
Fwd Contract Payable-\$........................ 324,000
Cash
324,000
Inv in FC
Exchange Gain
Exchange Gain.......................................
6,000
Fwd Contract Receivable-FC
Fwd Contract Receivable-FC Unrealized Gain

2,937

0, 00
1.65
1.63

| 326,000 |  |
| :--- | :--- |
| 321,000 | 326,000 |
| $(5,000)$ | $\frac{318,000}{(8,000)}$ |

4,938
200,000 200,000
1.62
1.605
1.63
(5,000)

Spot Rate
Fwd Rate-Remain
Fwd Rate-Original
Fair Value of Fwd Contract:
Original
Current
Change-Gain(loss) in Fwd Value
Present Value of Change:
\# of FC

```
\(n=1, i=.15 / 12\)
\(n=2, i=.15 / 12\)
Change in Value:
Current Present Value
Prior Present Value
Change in Present Value
Change due to spot rate-Gain(loss)
Change in time-Gain(loss)
Change in time-Gain(loss)
```

318, 000
1.59
1.63

326, 000
318, 000
2,937
326, 000
6,000

6,000

1, 062

6,000
324, 000

324, 000

6, 000

6,000

2/28
1.59

$$
8,000
$$

$(8,000)$
$(4,938)$
(3,062)
(6,000)
2,937

DIF: D
OBJ: 3, 5
21. On January 1, 20X4, Branson Company, a U.S. corporation, purchased lab equipment from a Japanese vendor for 1,000,000 FC. The 1,000,000 FC is to be paid on March 31, 20X4. On February 1 the company purchased a forward contract to buy foreign currency which would expire on March 31, 20X4. The contract was to purchase 1,000,000 FC.

Exchange Rates are as follows:

| Date | Spot Rate | Fwd Rate |
| :---: | :---: | :---: |
| 1/1/X4 | \$0.018 | \$0.011 |
| 2/1/X4 | \$0.014 | \$0.011 |
| 3/31X4 | \$0.013 | \$0.013 |

Discount rate = 15\%

Required:
Prepare the entries to record the transactions.

ANS:
Jan. 1

Accounts Payable
18,000
Feb. 1

Fwd Contract Receivable-FC................ 11,000
Fwd Contract Payable-\$
11,000
Mar. 31
Dollars due to Broker...................... 11,000

11,000
Accounts Payable.......................... 14,000
Inv in FC.
13,000
Exchange Gain
1, 000
Unrealized Loss on Contract............... 1,000
Fwd Contract Receivable-FC
1,000
Fwd Contract Receivable-FC ............... 3,000
Unrealized Gain on Contract............. 3,000
Inv in FC................................ 13,000
Fwd Contract Receivable-FC
13,000

```
# of FC
Spot Rate
Fwd Rate-Remain
```

| $1 / 1$ | $2 / 1$ | $3 / 31$ |
| :---: | :---: | :---: |
| $1,000,000$ | $1,000,000$ | $1,000,000$ |
| 0.018 | 0.014 | 0.013 |
| 0.011 | 0.011 | 0.013 |
|  | 0.011 | 0.011 |

Fair Value of Fwd Contract:
Original
11, 000
11, 000
Current
Change-Gain(loss) in Fwd Value
$11,000 \quad 13,000$
Present Value of Change:
$\begin{array}{lll}n=1, i=.15 / 12 & 0 & 2,000\end{array}$
Change in Value:
Current Present Value
$0 \quad 2,000$
Prior Present Value

| 0 | 2,000 |
| ---: | ---: |
| 0 | 0 |
| 0 | 2,000 |

Change in Present Value
Change due to spot rate-Gain(loss)
Change in time-Gain(loss)
2,000
$\frac{(1,000)}{3,000}$

DIF: M
OBJ: 3, 5
22. Blue \& Green, Inc. purchased merchandise for 100,000 FC from a foreign vendor on December 1, 20X5. Payment in FC is due January 31, 20X6. On December 1, 20X5, Blue \& Green signed an agreement with a foreign exchange broker to buy 100,000 FC on January 30, 20X6. Exchange rates to purchase 1 FC are as follows:

|  | Spot Rate | Fwd Rate |
| :---: | :---: | :---: |
| 12/1/X5 | \$1.45 | \$1.40 |
| 12/31/X5 | \$1.43 | \$1.35 |
| 1/31/X6. | \$1.41 | \$1.41 |

Fiscal Year End is 12/31; Discount rate $=12 \%$

Required:
Prepare the journal entries for December 1 through January 31 related to the events described above.

ANS:
20X5
Dec. 1
Inventory........................................... . . 145,000
Accounts Payable
145, 000
Fwd Contract Receivable-FC.................... 140,000
Fwd Contract Payable-\$
c. 31

| Accounts Payable Exchange gain. | 2,000 | 2,000 |
| :---: | :---: | :---: |
| Unrealized Loss on Contract. | 2,000 |  |
| Fwd Contract Receivable-FC |  | 2,000 |
| Unrealized Loss on Contract. Fwd Contract Receivable-FC | 2,950 | 2,950 |

Jan. 31

| Accounts Payable | 143,000 |  |
| :---: | :---: | :---: |
| Inv In FC |  | 141,000 |
| Exchange Gain |  | 2,000 |
| Unrealized Loss on Contract | 2,000 |  |
| Fwd Contract Receivable-FC |  | 2,000 |
| Fwd Contract Receivable-FC | 7,950 |  |
| Unrealized Gain on Contract |  | 7,950 |

Inv in FC .......................................... 141,000
Fwd Contract Receivable-FC
141, 000
\# of FC
Spot Rate
Fwd Rate-Remain
Fwd Rate-Original
Fair Value of Fwd Contract:
Original
Current
Change-Gain(loss) in Fwd Value
Present Value of Change:
$n=1, i=.12 / 12$
$n=2, i=.12 / 12$

Change in Value:
Current Present Value
Prior Present Value
Change in Present Value
Change due to spot rate-Gain(loss)
Change in time-Gain(loss)

| $\frac{12 / 1}{100,000}$ | $\frac{12 / 31}{100,000}$ |  |
| :---: | :---: | :---: |
| 1.45 | 1.43 | $1 / 31$ |
| 1.4 | 1.35 | 1.41 |
|  | 1.4 | 1.41 |
|  |  | 1.4 |
|  | 140,000 |  |
|  | $\frac{135,000}{}$ |  |
|  | $(5,000)$ | 140,000 |
|  |  | 1,000 |

140, 000

2,950
23. On $7 / 1$, a company forecasts the purchase of 10,000 units of inventory from a foreign vendor. The forecasted cost is estimated to be 150,000FC. It is estimated inventory will be delivered 11/1. Also, on 7/1, the company purchased a call option to buy 150,000 FC at a strike price of $\$ 0.60$ anytime during October. An option premium of $\$ 1,000$.

|  | $7 / 1$ | $\frac{7 / 31}{}$ | $\frac{8 / 31}{}$ | $\frac{10 / 1}{}$ |
| :--- | :--- | :--- | :--- | :--- |
| Spot. ................ | $\$ 0.58$ | $\$ 0.61$ | $\$ 0.63$ | $\$ 0.635$ |
| FV of option........ | $\$ 1,000$ | $\$ 1,400$ | $\$ 2,400$ | $\$ 2,600$ |

Required:
Prepare the journal entries required through 10/1:

ANS:
7/1
Inv in Call Option.............................. 1,000
Cash............................................ 1,000
7/31
Inv in Call Option............................. 400
Unrealized Loss on Option....................... 1,100
OCI (. 61 - . 60) x 150,000
1,500
8/31
Inv in Call Option.............................. 1, 000
Unrealized Loss on Option..................... 2,000
OCI $(.63-.61) \times 150$
10/1
Inv in Call Option............................. 200
Unrealized Loss on Option...................... 550
OCI (.635 - .63) x 150,000
Cash ........................................... 2,600
Investment in Call Option ............... 2,600
Inventory
95,250
Cash
95,250

DIF: M OBJ: 5
24. On November 1, 20X2, a calendar-year investor purchased a 90-day forward contract to buy $1,000 \mathrm{FCs}$ at a forward rate of $1 \mathrm{FC}=\$ 1.01$, when the spot rate was 1 FC = \$1.00. On December 31, 20X2, the forward rate for a 30-day forward contract was 1 FC = \$1.02. On February 1, 20X3, when the spot rate was $1 \mathrm{FC}=\$ 1.03$, the investor paid the broker and received the foreign currency.

Required:
Prepare the entries necessary to record this information. Ignore the present value calculations.

```
ANS:
20X2
Nov. 1
Fwd Contract Receivable-FC.......... 1,010
    Fwd Contract Payable-$............
Dec. 31
Fwd Contract Receivable-FC.......... }1
    Unrealized Gain on Contract........
20\times3
Feb. 1
Fwd Contract Payable-$................ 1,010
    Cash.............................. 1,010
Foreign Currency..................... 1,030
    Fwd Contract Receivable-FC..........
    Exchange Gain.......................
    10
DIF: M OBJ: 3, 5
```


## Chapter 11 - Translation of Foreign Financial Statements

## MULTIPLE CHOICE

1. The functional currency approach adopted by FASB 52 requires:
a. separate statements be maintained by the domestic parent company and the foreign branch both in their own currencies
b. separate statements be maintained by the domestic parent company and the foreign branch with the foreign branch translated into the functional currency
c. results from foreign currency changes to be ignored
d. a focus on whether the domestic reporting entity's cash flows will be indirectly or directly affected by changes in the exchange rates of the foreign entity's currency

ANS: D
DIF: M
OBJ: 1
2. In which of the following circumstances surrounding a Mexican subsidiary of an US parent is the peso most likely to be considered the functional currency?
a. Sales are made globally and collected in US dollars. Plant uses local materials and labor and pays in pesos. Intercompany transaction volume is high.
b. The Mexican subsidiary sells product only in Mexico and receives pesos. The materials and labor are also secured in Mexico and paid for with pesos.
c. The Mexican subsidiary receives their debt capital from a US bank in dollars and products produced are sold globally for US dollars.
d. Raw materials are acquired from the parent and paid for in US dollars. Labor is acquired locally and paid in pesos. Financing is secured from the parent in US dollars.
ANS: B
DIF: M
OBJ: 1
3. A U.S. firm owns 100\% of a Japanese automobile manufacturer. The cost of automobile parts is typically $75 \%$ of the firm's total product. In which of the following circumstances would neither the U.S. dollar nor the Japanese yen be considered the functional currency?
a. The Japanese firm buys German automobile parts with marks to produce cars sold in Latin America for dollars.
b. The Japanese firm buys German automobile parts with dollars to produce cars sold in Latin America for dollars.
c. The Japanese firm buys German automobile parts with marks to produce cars sold in Latin America for marks.
d. The FASB requires that either the parent's or the subsidiary's local currency be used as the functional currency.
4. Which of the following best describes the normal required method of accounting for statements of foreign entities in which a U.S. firm has an equity interest?
a. The functional method
b. The monetary-nonmonetary method
c. The current-noncurrent method
d. The temporal method

ANS: A DIF: M OBJ: 5
5. When the functional currency is the foreign entity's currency:
a. exchange rate changes do not affect the economic well being of the parent
b. the subsidiary operates as an entity, independent of the parent
c. Exchange rate changes do not have immediate impact on the cash flows of the parent
d. All of the above are correct

ANS: D DIF: D OBJ: 1
6. The translation (remeasurement)adjustment reported in a translation when the functional currency is not the foreign currency is included
a. as a separate component of other comprehensive income
b. in the current liability section of the balance sheet as deferred revenue
c. in the calculation of net income
d. none of the above

ANS: C DIF: M OBJ: 2
7. Assuming that a foreign entity is deemed to be operating in an environment dominated by the local currency, the entity's assets are translated using
a. the current rate.
b. a simple average rate.
c. a weighted average rate.
d. a historical rate.

ANS: A DIF: M OBJ: 2, 3
8. Assuming that a foreign entity is deemed to be operating in an environment dominated by the local currency, the entity's capital stock is translated using
a. the current rate.
b. a simple average rate.
c. a weighted average rate.
d. a historical rate.
ANS: D
DIF: M
OBJ: 2, 3
9. If the functional currency is determined to not be the foreign entity's local currency, translation is done using
a. the current rate method
b. the functional method
c. the remeasurement method
d. the derivative method

ANS: C
DIF: M
OBJ: 6
10. In most cases, which of the following is NOT a component of translated retained earnings?
a. Translated retained earnings at the end of the prior period
b. Income from the period translated at the historical rate
c. The value of dividends translated at the exchange rate on the date of declaration
d. All are components of translated retained earnings

ANS: B
DIF: D
OBJ: 3, 6
11. Which of the following is NOT true regarding foreign statement translation using the current or temporal method?
a. all assets and liabilities are translated at the current exchange rate at the date of translation.
b. only monetary assets and liabilities are translated at the current exchange rate at the date of translation.
c. Equity accounts other than retained earnings are translated at the historic rate in effect on the date of the investment
d. elements of income can be translated at a weighted average rate for the period

ANS: B
DIF: M
OBJ: 3
12. Which of the following is NOT considered when directly computing the translation adjustment for foreign financial statements?
a. Beginning amount of net assets held by the domestic investor
b. Increase or decrease in net assets for the period excluding capital transactions
c. Increase or decrease in net asset as a result of capital transactions
d. All are considered when directly computing the translation adjustment

ANS: D DIF: M OBJ: 4
13. Exchange rates will not usually directly affect the cash flows of the parent entity in which of the following cases?
a. The foreign entity operates in a currency other than its own.
b. The foreign entity operates in its local currency.
c. The foreign entity functions in a currency other than its local currency.
d. The foreign entity functions in the parent's currency.

ANS: B DIF: D OBJ: 1
14. Which of the following suggests that the foreign entity's functional currency is the parent's currency?
a. Intercompany transaction volume is low.
b. Debt is serviced through local operations.
c. There is an active and primarily local market.
d. Sale prices are influenced by international factors.

ANS: D
DIF: E
OBJ: 1
15. Which of the following foreign currency transactions would be included in the equity section of a U.S. firm along with the cumulative translation adjustments?
a. Those used to hedge a net investment in a foreign entity
b. Those used to speculate in foreign exchange rates
c. Those used to hedge an exposed asset or liability position
d. Those used to hedge a future foreign currency commitment

ANS: A
DIF: M
OBJ: 4
16. The eliminations and adjustment entries necessary to consolidate the parent and subsidiary financial statements are translated as follows: a. all balances, profits, and losses at the current exchange rate on the consolidation date
b. intercompany balances translate at the rates used for other accounts, profits and losses translate at an average rate
c. intercompany balances translate at the current rates, profits and losses translate at an average rate
d. none of the above are correct

ANS: B DIF: M OBJ: 5
17. A U.S. parent purchased a foreign subsidiary last year at a price in excess of the subsidiary's book value. This excess is assumed to be traceable to undervalued equipment. When the parent company prepares its elimination entries for the excess, which of the following combinations of exchange rates should be used?

Equipment
a. Historical
b. Current
c. Historical
d. Current

Depreciation Expense
Current
Historical
Average
Average

ANS: D
DIF: M
OBJ: 5
18. Which of the following is true concerning the accounting for a foreign investment under the cost method?
a. Investment income is recorded using the exchange rate on the dividend declaration date.
b. Investment income is recorded using the average exchange rate for the year.
c. Investment income is based on the investee's net income adjusted for the excess of purchase price over book value.
d. Investment income is based on the investee's net income without adjusting for the excess of purchase price over book value.

ANS: A
DIF: M
OBJ: 5
19. Rhante is a German company wholly owned by a U.S. firm. Its inventory is valued at the lower of cost or market, with cost being measured by the average cost method. Purchases of inventory occur evenly throughout the period. In 2005 Rhante's ending inventory was 50,000 euros at cost and 48,000 euros at market. Assume the following exchange rates:

| Jan. 1, 2005 | 1 euro $=\$ 1.40$ U.S. |
| :--- | :--- |
| Dec. 31, 2005 | 1 euro $=\$ 1.53$ U.S. |
| 2005 average | 1 euro $=\$ 1.45$ U.S. |

Determine the translated value of Rhante's inventory to be included in the consolidated balance sheet for the U.S. parent given Rhante's functional currency is the euro.
a. \$73,440
b. \$76,500
c. $\$ 69,600$
d. $\$ 72,500$

ANS: A
DIF: D
OBJ: 5
20. Rhante is a German company wholly owned by a U.S. firm. Its inventory is valued at the lower of cost or market, with cost being measured by the average cost method. Purchases of inventory occur evenly throughout the period. In 2005 Rhante's ending inventory was 50,000 euros at cost and 48,000 euros at market. Assume the following exchange rates:

| Jan. 1, 2005 | 1 euro $=\$ 1.40$ U.S. |
| :--- | :--- |
| Dec. 31, 2005 | 1 euro $=\$ 1.53$ U.S. |
| 2005 average | 1 euro $=\$ 1.45$ U.S. |

Determine the remeasured value of Rhante's inventory to be included in the consolidated balance sheet for the U.S. parent given Rhante's functional currency is the U.S. dollar.
a. \$72,500
b. \$73,440
c. \$69,600
d. $\$ 76,500$

ANS: A
DIF: D
OBJ: 5
21. A debit balance in a parent's cumulative translation adjustment after the first year of owning a foreign subsidiary suggests which of the following is true?
a. The exchange rate has strengthened relative to the U.S. dollar.
b. The exchange rate has weak relative to the U.S. dollar.
c. The foreign entity had net income but there was not a change in exchange rates.
d. The foreign entity had a net loss but there was not a change in exchange rates.

ANS: A DIF: D OBJ: 5
22. Which of the following procedures would be necessary when a Swiss subsidiary maintains its books in euros and its functional currency is Japanese Yen and its parent is a US company?
a. Remeasurement from euros to US Dollars
b. Remeasurement from euros to Japanese Yen; translate from Yen to US Dollars
c. Remeasurement from Yen to euros; translate from euros to US Dollars
d. none of the above

ANS: B
DIF: M
OBJ: 6
23. Assuming that the functional currency of a foreign subsidiary is the local currency, which of the following accounts would be translated at the current rate?
a. Additional Paid-in Capital
b. Prepaid Insurance
c. Allowance for Doubtful Accounts
d. Cost of Goods Sold

ANS: C DIF: M OBJ: 6
24. Assuming that the functional currency of a foreign subsidiary is not the local currency, which of the following accounts would be remeasured at the historical rate?
a. Long-term notes payable
b. Accounts Payable
c. Land
d. Sales Revenue

ANS: C DIF: E OBJ: 6
25. Which of the following best describes the measurement of a gain or loss from the sale of a depreciable asset by a foreign subsidiary whose functional currency is not the local currency?
a. Reconstruct the journal entry on the date of the sale using the historical rate for cash and the depreciable asset and its accumulated depreciation.
b. Reconstruct the journal entry on the date of the sale using the current rate for cash and the historical rate for the depreciable asset and its accumulated depreciation.
c. Translate the gain or loss using the historical rate.
d. Translate gains at the current rate and losses at the historical rate.

ANS: A
DIF: D
OBJ: 5
26. Which of the following best describes the accounting for a foreign
entity requiring translation or remeasurement if the local economy is
classified as highly inflationary?
a. The entity's financial statements are first adjusted for inflation and then translated into the domestic currency.
b. The entity's financial statements are first adjusted for inflation and then remeasured into the domestic currency.
c. The unadjusted trial balance is translated if the functional currency is the local currency.
d. The unadjusted trial balance is remeasured regardless of the functional currency.

ANS: D
DIF: M
OBJ: 6
27. The adjustment resulting from the remeasurement of an entity operating
in a highly inflationary environment would appear
a. in the stockholders' equity section of the balance sheet.
b. as a component of other comprehensive income.
c. as an ordinary income statement item.
d. as an extraordinary item on the income statement.

ANS: C DIF: M OBJ: 6
28. FASB Statement \#52 requires which of the following disclosures from firms involved in foreign currency transactions?
a. Beginning cumulative translation adjustments
b. Ending cumulative translation adjustments
c. The amount of income taxes for the period allocated to translation adjustments
d. All are required disclosures

ANS: D DIF: E OBJ: 7
29. In a company's disclosure of foreign currency transactions and hedges and translation adjustments, all of the following items should be disclosed except
a. beginning and ending cumulative translation adjustments.
b. the amount of income taxes for the period allocated to translation adjustments.
c. the amount transferred from cumulative translation adjustment due to changes in foreign exchange rates.
d. the aggregate adjustment for the period resulting from translation adjustment.

ANS: C
DIF: M
OBJ: 7
30. Sharp Company owns a Japanese subsidiary. On October 15, 20X5, when the rate of exchange was 121 yen to $\$ 1$, the Japanese subsidiary declared and paid a dividend to Sharp of 24,000,000 yen. The dividend represented the net income of the foreign subsidiary for the six months ended June 30, 20X5, during which time the weighted average of exchange rates was 125 yen to \$1. The rate of exchange in effect at December 31, 20X5, was 135 yen to $\$ 1$. What rate of exchange should be used to translate the dividend for the December 31, 20X5 financial statements?
a. 121 yen to \$1
b. 125 yen to $\$ 1$
c. 135 yen to \$1
d. 128 yen to \$1

ANS: A DIF: M OBJ: 5
31. A foreign subsidiary of Dallas Jeans Corp. (a U.S. firm) has certain balance sheet accounts on December 31, 20X9. The functional currency is the U.S. dollar and currency of record is the peso and the parent's books are kept in U.S. dollars. Information relating to these accounts in U.S. dollars is as follows:

|  | Translated at |  |
| :---: | :---: | :---: |
|  | Current | Historical |
|  | Rate | Rate |
| Accounts Receivable. | \$175,000 | \$190, 000 |
| Inventories | 400, 000 | 450, 000 |
| Prepaid Insurance | 40, 000 | 45, 000 |
| Land. | 30,000 | 100, 000 |

What amount should be included as total assets on Dallas Jean's balance sheet on December 31, 20X9 as the result of the above information?
a. \$645,000
b. $\$ 765,000$
c. \$770,000
d. \$785,000
e. None of the above

ANS: A DIF: M OBJ: 5
32. A foreign subsidiary of Griffin Corp. (a U.S. firm) has certain balance sheet accounts on December 31, 20X9. The functional currency is the yen and the currency of record is the dollar and the parent's books are kept in U.S. dollars. Information relating to these accounts in U.S. dollars is as follows:

|  | Translated at |  |
| :---: | :---: | :---: |
|  | Current | Historical |
|  | Rate | Rate |
| Accounts Receivable | \$200,000 | \$220,000 |
| Inventory | 300,000 | 275,000 |
| Prepaid Assets | 10,000 | 15,000 |
| Land | 100,000 | 25,000 |

What amount should be included in total assets on Griffin's balance sheet on December 31, 20X9 as the result of the above information?
a. $\$ 610,000$
b. $\$ 535,000$
c. $\$ 715,000$
d. $\$ 540,000$

ANS: D
DIF: M
OBJ: 5
33. The reconciliation of the annual translation adjustment usually includes all of the following, EXCEPT
a. net assets at the beginning of the period multiplied by the change in exchange rates during the period.
b. change in net assets (excluding capital transactions) multiplied by the difference between the current rate and the average rate used to translate income.
c. change in net assets (excluding capital transactions) multiplied by the difference between the historical rate and the average rate used to translate income.
d. change in net assets due to capital transactions multiplied by the difference between the current rate and the rate at the time of the capital transaction.

ANS: A DIF: M OBJ: 4
34. Exchange gains and losses resulting from translating (not remeasuring) foreign currency financial statements into U.S. dollars should be included as a(an)
a. a component of other comprehensive income.
b. extraordinary item in the income statement for the period in which the rate changes.
c. ordinary gain/loss item in the income statement.
d. component of operating income.

ANS: A
DIF: E
OBJ: 4
35. Patents are on the books of a British subsidiary of a U.S. firm at a value of 50,000 pounds. The patents were acquired in $20 \times 3$ when the exchange rate was 1 pound $=\$ 1.50$. The British subsidiary was acquired by the U.S. firm in 20X0 when the exchange rate was 1 pound $=\$ 1.40$. The exchange rate on December 31, 20X4, the date of the most current balance sheet, is 1 pound $=\$ 1.55$. The average rate of exchange for 20 X 4 is \$1.53. What exchange rate will be used to remeasure patents for the consolidated statements dated December 31, 20X4?
a. $\$ 1.40$
b. $\$ 1.50$
c. $\$ 1.53$
d. $\$ 1.55$

ANS: B DIF: M OBJ: 3, 5

## PROBLEM

1. Discuss the factors that may be considered in determining if a Mexican subsidiary of a U.S. firm has the peso or the dollar as its functional currency. The subsidiary only manufactures component parts that are shipped to the U.S. firm's final production plant in Detroit.

ANS:
Factors that should be considered include the following:
a. Cash flows - Are the cash flows primarily in pesos, and do they have a major impact on the parent's cash flows?
b. Expenses - Are goods and services purchased with pesos or dollars?
c. Sales Price - Prices are influenced by local factors rather than international factors or exchange rates
d. Financing - Is debt secured locally and denominated in pesos?
e. Markets - Is there an active, local (primary) market rather than the market being primarily the parent

DIF: E OBJ: 1
2. List the two primary objectives of translating foreign financial statements according to the FASB \#52, which emphasizes the concept of the functional currency.

ANS:
a. Provide information that is generally compatible with the expected economic effects of a rate change on an enterprise's cash flows and equity.
b. Reflect, in consolidated statements, the financial results and relationships of the individual consolidated entities as measured in their functional currencies in conformity with U.S. generally accepted accounting principles.

DIF: E OBJ: 2
3. Hylie, a U.S. corporation, owns $100 \%$ of Frosan, a French firm. Assume that the dollar is the functional currency, although the books are kept in euros.

Required:
What currency exchange rate would be used to remeasure Frosan's balance sheet into U.S. dollars? Choose from current, simple average, weighted average, or historical.
a. Cash
b. Accounts Receivable
c. Inventory, carried at cost
d. Equipment
e. Accumulated Depreciation
$\qquad$
$\qquad$
$\qquad$
f. Bonds Payable
g. Common Stock $\qquad$
h. Sales

ANS:
a. Cash

Current
b. Accounts Receivable
c. Inventory, carried at cost

Current
d. Equipment

Current
Historical
e. Accumulated Depreciation
f. Bonds Payable

Historical
Current
g. Common Stock

Historical
h. Sales

Weighted Average

DIF: M
OBJ: 6
4. CableTech, a US corporation, owns $100 \%$ of the Canadian company, Fiber Quebec. The Canadian dollar is the currency of record and the functional currency.

Required:
What currency exchange rate would be used to translate Fiber Quebec's accounts into US Dollars? Choose from current, simple average, weighted average, or historical.
a. Prepaid Insurance
b. Land
c. Common Stock
d. Bonds Payable
e. Sales
f. Goodwill
g. Allowance for Doubtful Accounts
h. Deferred Income Taxes

ANS:
a. Prepaid Insurance
b. Land
c. Common Stock
d. Bonds Payable
e. Sales
f. Goodwill
g. Allowance for Doubtful Accounts
h. Deferred Income Taxes

Current
Current
Historical
Current
Weighted Average
Current
Current
Current

DIF: M
OBJ: 3
5. Complete the following worksheet, assuming that on January 1, 20x1, Weiss Corporation purchased Rock Corporation. Rock's functional currency is the FC .

| Date | Relevant Exchange Rates |
| :---: | :---: |
| January 1, 20X1 | $1 \mathrm{FC}=\$ 0.25$ |
| January 1, 20X4 | $1 \mathrm{FC}=\$ 0.30$ |
| March 31, 20X4. | $1 \mathrm{FC}=\$ 0.40$ |
| December 31, 20X4. | $1 \mathrm{FC}=\$ 0.50$ |
| Weighted average 20X | $1 \mathrm{FC}=\$ 0.37$ |

Rock Corporation
For the Year Ended December 31, 20X4

|  | FC | Rate | Dollars |
| :---: | :---: | :---: | :---: |
| Income Statement |  |  |  |
| Net sales. | FC 2,000,000 |  | \$ |
| Costs and expenses. | 800,000 |  |  |
| Net income. | FC 1,200,000 |  | \$ |
|  |  |  |  |
|  |  |  |  |
| Net income | 1,200,000 |  |  |
| Subtotal. | FC 7,700,000 |  | \$ |
| Dividends (declared on March 31) | 1,000,000 |  | \$ |
| Retained earnings, end of year. | FC 6,700, 000 |  |  |
| Balance Sheet Assets |  |  |  |
| Current assets. | FC 3,000,000 |  | \$ |
| Plant assets (net) <br> (purchased January 1, 20X1).. | 55,000,000 |  |  |
| Total assets. | $\begin{aligned} & \text { FC 58,000,000 } \\ & ============ \end{aligned}$ |  | \$ |
| Liabilities and Stockholders' Equity |  |  |  |
| Current liabilities | FC 4,000,000 |  | \$ |
| Long-term debt................... 25,000,000 |  |  |  |
| Common stock <br> (issued January 1, 20X1) | 5,000,000 |  |  |
| Paid-in capital in excess of par 17,300,000 |  |  |  |
|  |  |  |  |
|  |  |  |  |
| Total liabilities and |  |  |  |
| stockholders' equity. | FC 58,000, 000 |  |  |

ANS:
Rock Corporation For the Year Ended December 31, 20X4

| Income Statement | FC | Rate | Dollars |
| :---: | :---: | :---: | :---: |
|  |  |  |  |
| Net sales. | FC 2,000, 000 | . 37 | \$ 740, 000 |
| Costs and expenses | 800,000 | . 37 | 296,000 |
| Net income. | FC 1,200,000 | . 37 | \$444,000 |
| Statement of Retained Earnings |  |  |  |
| Retained earnings, beginning of year...................... | FC 6,500,000 |  | \$1,300, 000 |
| Net income | 1,200,000 |  | 444, 000 |
| Subtotal | FC 7,700,000 |  | \$1,744,000 |
| Dividends (declared on March 31) | 1,000,000 | . 40 | \$ 400,000 |
| Retained earnings, end of year. | FC 6,700,000 |  | \$1,344, 000 |

## Balance Sheet <br> Assets



DIF: D
OBJ: 3
6. Abercrombe Co., a U.S. firm, formed a German company in 20X4 by purchasing the common stock of the newly formed Dolce Inc. The functional currency of Dolce is the euro. During their first three years, Dolce experienced the following activity in retained earnings:

| 20X4 | Net loss | 100,000 euros |
| :---: | :---: | :---: |
| 20X5 | Net income | 200,000 euros |
| January 1, 20X6 | Dividend | 50,000 euros |
| 20X6. | Net income | 75,000 euros |

The following exchange rates could be relevant:

| Date | Rate |
| :---: | :---: |
| December 31, 20X3 | 1 euro $=\$ 0.20$ |
| December 31, 20X4 | 1 euro = \$0.22 |
| Average 20X4 | 1 euro = \$0.215 |
| January 1, 20X6 | 1 euro = \$0.245 |
| Average 20x5. | 1 euro = \$0.24 |
| December 31, 20X6 | 1 euro $=\$ 0.26$ |
| Average 20X6. | 1 euro = \$0.25 |

## Required:

What is the translated December 31, 20X6, balance of the retained earnings for Dolce?

ANS:

| 20X4 net loss (100,000 marks) $\times .215 \ldots \ldots$. | $\$(21,500)$ |
| :--- | ---: |
| 20X5 net income 200,000 marks $\times .24 \ldots \ldots$. | 48,000 |
| 20X6 dividend $(50,000$ marks $\times .245 \ldots \ldots .$. | $(12,250)$ |
| 20X6 net income 75,000 marks $\times .25 \ldots \ldots .$. | 18,750 |
| Translated balance on December $31,20 \times 6 \ldots$ | $\$ 33,000$ |

DIF: M OBJ: 3
7. Green Corporation, a wholly owned British subsidiary of a U.S. firm began the year with 1,300,000 British pounds in net assets. The subsidiary incurred a 65,000 British Pound net loss for 20X1. The subsidiary issued common stock for 100,000 British pounds on November 15, 20X1. Assume the following exchange rates for 20X1:

| Date | Rate |
| :---: | :---: |
| January 1, 20X1. | 1 British Pound = \$1.10 |
| November 15, 20X1. | 1 British Pound = \$1.15 |
| December 31, 20X1. | 1 British Pound = \$1.13 |
| 20X1 average | 1 British Pound = \$1.14 |

Required:
Compute the translation adjustment for 20X1 using the direct method.

ANS:


DIF: M
OBJ: 4
8. A U.S.-owned foreign subsidiary has the following beginning and ending stockholders' equity for 20X1:

|  | January | 1 | December 31 |  |
| :---: | :---: | :---: | :---: | :---: |
| Common stock | 120,000 | FC | 140,000 | FC |
| Paid-in capital in excess of par | 30, 000 |  | 40, 000 |  |
| Retained earnings | 60, 000 |  | 100,000 |  |
|  | 210,000 | FC | 280,000 | FC |

The change in common stock resulted from a sale of stock to the parent firm on May 15. The change in retained earnings resulted from a July 1 dividend of 10,000 FC and net income for 20X1. Various exchange rates were as follows:

| Date | Rate |
| :---: | :---: |
| January 1, 20X1 | $1 \mathrm{FC}=$ \$1.10 |
| May 15, 20X1 | $1 \mathrm{FC}=\$ 1.12$ |
| July 1, 20x1. | $1 \mathrm{FC}=\$ 1.13$ |
| December 31, 20x1 | $1 \mathrm{FC}=\$ 1.15$ |
| 20X1 average. | $1 \mathrm{FC}=\$ 1.125$ |

## Required:

Compute the 20X1 translation adjustment for the foreign subsidiary.

ANS:
January 1, 20X1, net assets $x$ change in current exchange rate:
210,000 x (1.15-1.10).................................... \$10,500
Net income for $20 \times 1 \times$ (current - average exchange rates):
50,000 x (1.15 - 1.125)................................... 1, 250
Increase in net assets from stock issue $x$ (change in rates
between issue date and year end):

Decrease in assets from dividends $x$ (current - dividend date rates):
$(10,000) \times(1.15-1.13)$
9. For each of the following account balances, identify the exchange rate used to translate or remeasure. The choices are current exchange rate, historical rate, weighted average, other (specify).

|  | Current Method | Remeasurement Method |
| :--- | :--- | ---: |
| Accounts Receivable |  |  |
| Prepaid Assets |  |  |
| Accounts Payable |  |  |
| Common Stock |  |  |
| Land |  |  |
| Goodwill |  |  |
| Sales Revenue |  |  |
| Depreciation |  |  |

ANS:
Accounts Receivable
Prepaid Assets
Accounts Payable
Common Stock
Land
Goodwill
Sales Revenue
Depreciation

| Current Method | Remeasurement Method |
| :---: | :---: |
| Current | Current |
| Current | Historical |
| Current | Current |
| Historical | Historical |
| Current | Historical |
| Current | Historical |
| Weight Average | Weight Average |
| Weight Average | Historical |

DIF: M OBJ: 7
10. A U.S. firm purchased 100\% of a foreign firm on January 1, 20X1, when the foreign firm had the following equity accounts:

| Common stock | 150,000 FC |
| :---: | :---: |
| Paid-in excess of par value | 50,000 FC |
| Retained earnings | 200, 000 FC |
|  | 400, 000 FC |

The U.S. firm paid 420,000 FCs for the foreign firm. The payment in excess of book value is traceable to undervalued land owned by the foreign firm. The foreign firm had a net income of 25,000 FCs during 20X1. Assume that the following exchange rates are relevant:

| Date | Rate |
| :---: | :---: |
| January 1, 20X1 | $1 \mathrm{FC}=\$ 2.00$ |
| December 31, 20X1 | $1 \mathrm{FC}=\$ 1.80$ |
| 20X1 average | $1 \mathrm{FC}=\$ 1.95$ |

## Required:

Prepare all the journal entries to record and update the investment account of the U.S. firm and the necessary eliminating and adjusting entries for the 20X1 consolidated statement. Assume that the U.S. firm used the simple equity method.

ANS:
Jan. 1

Dec. 31
Investment in Foreign Company................... 48,750
Subsidiary Income................................. 48 48,750
Eliminating entries:
Dec. 31
Subsidiary Income.................................... 48 . 450
Investment in Foreign Company................. 48,750
Dec. 31
Beginning Retained Earnings...................... 400, 000
Common Stock............................................ 300, 000
Paid-in Excess of Par Value...................... 100,000
Excess of Cost over Book Value................... 40,000
Investment in Foreign Company
840,000
Dec. 31
Land (20,000 x 1.80)................................ 36,000
Cumulative Translation Adjustment............... 4,000
Excess of Cost Over Book Value................ 40,000

DIF: M OBJ: 5
11. On January 1, 20X1, Rapid Corporation purchased $25 \%$ of a foreign firm when its stockholders' equity section totaled 240,000 FCs. Rapid Corporation paid 75,000 FCs, with the excess over book value being attributed to equipment with a 5 -year useful life. The foreign firm reported net income of 80,000 FCs for 20X1. Relevant exchange rates were as follows:

| Date | Rate |
| :---: | :---: |
| January 1, 20X1. | $1 \mathrm{FC}=\$ 0.30$ |
| December 31, 20X1 | $1 \mathrm{FC}=\$ 0.35$ |
| Average 20X1 | $1 \mathrm{FC}=\$ 0.33$ |

Required:
Prepare the journal entries necessary to record the events concerning Rapid's investment in the foreign firm.

ANS:
Jan. 1

Dec. 31
Investment in Foreign Firm....................... 9,010
Subsidiary Income................................. 5 5,6101
Cumulative Translation Adjustment........... 3,400²
${ }^{1}[25 \% \times(80,000 \times \$ 0.33)]-[15,000 \times \$ 0.33 \div 5]$
${ }^{2} 25 \% \times[(240,000 \times(\$ 0.35-\$ 0.30))+(80,000 \times(\$ 0.35-\$ 0.33))]$

DIF: D
OBJ: 5
12. Company A, an American company, owns Company B, a Canadian subsidiary. Company A borrowed 1,000,000 Canadian dollars as a hedge on its net investment in Company B. For 20X3, Company A recorded an exchange gain of $\$ 40,000$ due to exchange rate changes. The $20 \times 3$ translation adjustment for Company B was a debit of $\$ 42,000$.

Required:
Describe the accounting treatment required for the hedge on Company A's books.

ANS:
The Canadian borrowing is designated and effective as a hedge of Company A's net investment in Company B. To the extent that the exchange gain or loss on such a hedge does not exceed the current-period translation adjustment, it is to be included in the cumulative translation adjustment component of stockholders' equity. In this case, the $\$ 40,000$ exchange gain on the hedge counteracts nearly all of the 20X3 debit translation adjustment, leaving Company A with a net debit of $\$ 2,000$ to stockholders' equity.

DIF: M
OBJ: 4
13. In the temporal or current method of translation from functional currency to reporting currency, what are the steps required and rates to be used.

ANS:
The steps for translating financial statements are:
(1) Adjust the financial statements of the foreign entity to conform with Generally Accepted Accounting Principles.
(2) Identify the functional currency,
(3) Translate the financial statements to the domestic entity's reporting currency.
a. All Assets and Liabilities are translated at the current rate on the translation date
b. Elements of income are translated at the current rates at the time of income recognition or at a weighted average
c. Equity accounts other than Retained Earnings are translated at historical rates on date of investment
d. Retained Earnings is translated in layers

DIF: E OBJ: 3
14. An American firm owns 100\% of a German firm that had the following transactions occur relative to their equipment account:

January 1, 20X5 Purchased equipment for 50,000 euros
July 1, 20X5 Purchased equipment for 30,000 euros
January 1, 20X6 Purchased equipment for 75,000 euros
July 1, 20X6 Sold equipment purchased on January 1, 20X5 for 48,000 euros

The following exchange rates could be relevant:

| Date | euro/\$ | Date | euro/\$ |
| :---: | :---: | :---: | :---: |
| January 1, 20X5 | \$0.50 | January 1, 20X6. | \$0.53 |
| July 1, $20 \times 5$. | \$0.52 | July 1, 20X6. | \$0.50 |
| December 31, 20X5 | \$0.53 | December 31, 20X6 | \$0.49 |
| Average 20X5. | \$0.515 | Average 20X6 | \$0.51 |

## Required:

Assuming that the U.S. dollar is the functional currency and that the German firm uses straight-line depreciation over a 5 -year period with a $10 \%$ salvage value, determine the following for remeasurement purposes:
a. The value of the equipment account on December 31, $20 \times 6$.
b. The value of the depreciation expense for $20 \times 6$.
c. The amount of the gain or loss resulting from the July 1, 20X6, sale.

ANS:
a. Equipment:

| July 1, 20x5 (30,000 X .52) | \$15,600 |
| :---: | :---: |
| January 1, 20X6 ( $75,000 \times .53$ ) | 39,750 |
| Total equipment | \$55,350 |

b. Depreciation expense
$\frac{(50,000-5,000)}{5} \times 1 / 2$ year $\times .50 \ldots . . . \quad \$ 2,250$


Total depreciation...................... \$12,213
======
c. Cash (48,000 x .50)....................... 24,000

Accumulated depreciation............... 6,750
Equipment................................. . .
25,000
Gain of sale of equipment.............
5,750

DIF: M OBJ: 6
15. A French subsidiary of a U.S. firm keeps accounting records in euros. The U.S. dollar is considered the subsidiary's functional currency. Assume the following exchange rates:

| Date | euro = \$ |
| :---: | :---: |
| January 1, 20X5. | \$1.05 |
| July 1, 20X5. | \$1.07 |
| Dec. 31, 20X5 | \$1.09 |
| Average 20X5 | \$1.08 |
| January 1, 20X6. | \$1.09 |
| July 1, 20X6 | \$1.07 |
| Dec. 31, 20X6 | \$1.06 |
| Average 20X6. | \$1.08 |

Required:
Remeasure the following items from the December 31, 20X6 trial balance of the subsidiary:
a. Sales made evenly throughout $20 \times 6=100,000$ euros
b. Cost of goods sold $=30,000$ euros

5,000 euros purchased July 1, 20X5
25,000 euros purchased July 1, 20X6
c. Salary expense for $20 \times 6=40,000$ euros
d. Land $=1,000,000$ euros

200, 000 euros purchased January 1, 20X5 800,000 euros purchased July 1, 20X6

ANS:
a. Sales: (100,000 x 1.08)..................... \$108,000
b. Cost of goods sold:
(5,000 $\times 1.07$ )................................... $\$$ 5, 350
$(25,000 \times 1.07) \ldots . . . . . . . . . . . . . . . . . . .$.
\$32,100
======
c. Salary expense: (40,000 x 1.08).............. \$43,200
d. Land:

$$
\begin{aligned}
& \text { (200,000 x 1.05).............................. \$ 210,000 } \\
& (800,000 \times 1.07) \ldots . . . . . . . . . . . . . . . . . . . . \\
& \text { \$1,066,000 }
\end{aligned}
$$

DIF: E OBJ: 5
16. Foreign firms operating in highly inflationary economies received special treatment under generally accepted accounting principles (GAAP) relative to translating their financial statements.

Required:
a. How does the FASB define a highly inflationary economy?
b. Why is the method typically used for translating foreign entities not permitted for these firms?
c. What method is used for remeasuring or translating the statements of these firms?

ANS:
a. The FASB defines a highly inflationary economy as one that has a cumulative inflation rate of approximately $100 \%$ or more over a 3-year period. Other factors, such as the trend of inflation, also may suggest a highly inflationary economy.
b. The FASB has concluded that if a foreign entity's currency has lost its utility as a measure of value because of high inflationary conditions, the domestic reporting currency should be considered the functional currency.
c. Since the domestic currency is viewed as the functional currency, the proper method for remeasurement is the temporal method.

DIF: M OBJ: 6
17. In January, 20X3, Dudwil Corporation acquired a foreign subsidiary, Holman Company, by paying cash for all of the outstanding common stock of Holman. On the purchase date, Holman Company's accounts were stated fairly in local currency units (FC). Subsequent sales of Holman's common stock have been purchased by Dudwil to maintain its $100 \%$ ownership.

Holman's trial balance, in functional currency units (same as the local currency units), on December 31, 20X7, follows:

|  | Debit | Credit |
| :---: | :---: | :---: |
| Cash. | 58,400 |  |
| Marketable securities | 32,500 |  |
| Accounts receivable (net) | 51, 370 |  |
| Inventories | 108,000 |  |
| Surrender value of life insurance | 7,200 |  |
| Intangible assets | 123,900 |  |
| Property, plant, and equipment | 636,000 |  |
| Accumulated depreciation. |  | 93,850 |
| Accounts payable. |  | 74,000 |
| Accrued interest payable |  | 7,120 |
| Notes payable |  | 52,000 |
| Bonds payable |  | 80, 000 |
| Capital stock. |  | 83,000 |
| Paid-in capital in excess of par |  | 190,300 |
| Retained earnings |  | 390,400 |
| Sales |  | 936,300 |
| Cost of goods sold | 762,000 |  |
| Interest expense | 7,120 |  |
| Depreciation expense | 39,350 |  |
| Amortization expense--intangibles | 3,100 |  |
| Other expenses. | 84,230 |  |
| Gain on sale of equipment |  | 2,400 |
| Interest income. |  | 3,800 |
| Total | 1,913,170 | 1,913,170 |

The following additional information is available:
a. Holman uses the LIFO inventory method to account for its inventory. Purchases took place uniformly throughout 20X7. There were no intercompany sales during 20X7.
b. During 20X7, Holman declared and paid a dividend of 7,000 FCs at the end of each calendar quarter.
c. The balances in the contributed capital accounts result from the following transactions:

| Date | Capital | Paid-in Capital in Excess of Par |
| :---: | :---: | :---: |
| January 1, 20X3, issuance. | 40,000 FC | 80,000 FC |
| June 30, 20X5, issuance. | 40,000 | 104,300 |
| January 1, 20X6, issuance | 10,000 | 20,000 |
| August 1, 20X6, retirement | (7,000) | $(14,000)$ |
|  | 83,000 FC | 190,300 FC |

The August 1, 20X6, retirement of stock involves stock originally issued on January 1, 20X3.
d. The December 31, 20X6, retained earnings balance of 418,400 FC, translated into dollars, is \$179,460.
e. Selected translation rates are as follows:

| Date | Rate |
| :---: | :---: |
| January 1, 20X3 | $1 \mathrm{FC}=\$ 0.30$ |
| 20X3 average | $1 \mathrm{FC}=0.32$ |
| 20X4 average | $1 \mathrm{FC}=0.38$ |
| February 1, 20x5 | $1 \mathrm{FC}=0.42$ |
| June 30, 20X5 | $1 \mathrm{FC}=0.45$ |
| 20X5 average | $1 \mathrm{FC}=0.45$ |
| January 1, 20X6 | $1 \mathrm{FC}=0.50$ |
| February 1, 20X6 | $1 \mathrm{FC}=0.52$ |
| August 1, 20X6 | $1 \mathrm{FC}=0.60$ |
| December 31, 20X6 | $1 \mathrm{FC}=0.61$ |
| 20X6 average. | $1 \mathrm{FC}=0.56$ |
| March 31, 20X7 | $1 \mathrm{FC}=0.63$ |
| June 30, 20X7. | $1 \mathrm{FC}=0.66$ |
| September 30, 20X7 | $1 \mathrm{FC}=0.70$ |
| December 31, 20X7. | $1 \mathrm{FC}=0.75$ |
| 20X7 average.. | $1 \mathrm{FC}=0.70$ |

## Required:

Prepare a schedule to translate the December 31, 20X7, trial balance of Holman Company from local currency units to dollars. The schedule should show the trial balance in FCs, the exchange rates, and the trial balance. (Do not extend the trial balance to statement columns. Supporting schedules should be in good form.)

ANS:

| Holman Company <br> Schedule of Trial Balance Translation December 31, 20X7 |  |  |  |
| :---: | :---: | :---: | :---: |
| Account | Balance in Functional Currency (FC) | $\begin{gathered} \text { Exchange } \\ \text { Rate } \\ \text { (\$/FC) } \\ \hline \end{gathered}$ | $\begin{gathered} \text { Balance } \\ \text { in } \\ \text { Dollars } \\ \hline \end{gathered}$ |
| Cash. | 58,400 | . 75 | \$ 43,800 |
| Marketable Securities | 32,500 | . 75 | 24,375 |
| Accounts receivable (net) | 51,370 | . 75 | 38,528 |
| Inventories | 108,000 | . 75 | 81,000 |
| Cash Surrender Value of |  |  |  |
| Life Insurance. | 7,200 | . 75 | 5,400 |
| Intangible Assets. | 123,900 | . 75 | 92,925 |
| Property, Plant, and Equipment | 636,000 | . 75 | 477,000 |
| Cost of Goods Sold. | 762,000 | . 70 | 533,400 |
| Interest Expense | 7,120 | . 70 | 4,984 |
| Depreciation Expense | 39,350 | . 70 | 27,545 |
| Amortization Expense- |  |  |  |
| Intangibles. | 3,100 | . 70 | 2,170 |
| Other Expenses | 84,230 | . 70 | 58,961 |
| Total Debits | 1,913,170 |  | \$1,390,088 |
| Accumulated Depreciation. | 93,850 | . 75 | \$ 70,388 |
| Accounts Payable | 74,000 | . 75 | 55,500 |
| Accrued Interest Payable. | 7,120 | . 75 | 5,340 |
| Notes Payable. | 52,000 | . 75 | 39,000 |
| Bonds Payable. | 80,000 | . 75 | 60,000 |
| Capital Stock. | 83,000 | Schedule A | A 32,900 |
| Paid-in Capital in Excess of P | 190,300 | Schedule B | 76,735 |
| Retained Earnings. | 390,400 | Schedule C | 160, 280 |
| Sales. | 936,300 | . 70 | 655,410 |
| Gain on Sale of Equipment | 2,400 | . 70 | 1,680 |
| Other Income. | 3,800 | . 70 | 2,660 |
| Cumulative Translation |  |  |  |
| Adjustments. |  |  | 230,195 |
| Total Credits | 1,913,170 |  | \$1,390,088 |


|  | Balance <br> in FCs | $\begin{gathered} \text { Exchange } \\ \text { Rate } \\ \text { (\$/FC) } \\ \hline \end{gathered}$ | $\begin{gathered} \text { Balance } \\ \text { in Dollars } \end{gathered}$ |
| :---: | :---: | :---: | :---: |
| Schedule A: Translation of - |  |  |  |
| Capital Stock: |  |  |  |
| January 1, 20X3, issuance | 40,000 | . 30 | \$12, 000 |
| June 30, 20X5, issuance. | 40, 000 | . 45 | 18,000 |
| January 1, 20X6, issuance | 10,000 | . 50 | 5,000 |
| August 1, 20X6, retirement | (7,000) | . 30 | $(2,100)$ |
|  | 83,000 |  | \$32,900 |
| Schedule B: Translation of Paid-in |  |  |  |
| Capital: |  |  |  |
| January 1, 20X3, issuance. | 80,000 | . 30 | \$24, 000 |
| June 30, 20X5, issuance. | 104,300 | . 45 | 46,935 |
| January 1, 20X6, issuance | 20,000 | . 50 | 10,000 |
| August 1, 20X6, retirement | (14, 000) | . 30 | $(4,200)$ |
|  | 190,300 |  | \$76,735 |
| Schedule C: Retained Earnings |  |  |  |
| December 31, $20 \times 6$ balance... | 418,400 | N/A | \$179,460 |
| 20X7 dividends: |  |  |  |
| 1st quarter | $(7,000)$ | . 63 | $(4,410)$ |
| 2nd quarter. | (7,000) | . 66 | $(4,620)$ |
| $3 r d$ quarter | $(7,000)$ | . 70 | $(4,900)$ |
| 4th quarter | (7,000) | . 75 | $(5,250)$ |
|  | 390,400 |  | \$160, 280 |

DIF: D OBJ: 5
18. On January 1, 20X5, Cayane Inc. purchased 90\% of an German firm, Brosch Manufacturing. On January 1, 20X5, Brosch's equity consisted of the following:


Cayane paid 800, 000 euros for its $90 \%$ interest in Brosch. The excess over book value was attributed to a building with a 20-year useful life. On June 1, 20X5, Brosch declared a 50,000-euro dividend and paid it on July 1, 20X5. Waterford reported net income for $20 \times 5$ of 150, 000 euros. The year-end cumulative translation adjustment is \$10,000. Relevant exchange rates are as follows:

| January 1, 20x5 | 1 euro = \$. 65 |
| :---: | :---: |
| June 1, 20X5 | 1 euro = . 66 |
| July 1, 20X5. | 1 euro = . 67 |
| December 31, 20X5 | 1 euro = . 68 |
| 20X5 average. | 1 euro = . 66 |

Required:
Prepare all the journal entries related to Cayane's investment in Brosch and all the necessary eliminating and adjusting entries for consolidation of Brosch, assuming the use of the simple equity method.

ANS:
Jan. 1

June 1
Dividends Receivable......................... 29,700
Investment in Brosch (50,000 x \$0.66 x 90\%)
29,700

Jul. 1
Cash-euros (50,000 x \$0.67 x 90\%)............. 30,150
Gain on Foreign Currency Transaction....... 450
Dividends Receivable
29,700
Dec. 31
Investment in Brosch.................. 89,100 Subsidiary Income (150,000 x \$0.66 x 90\%) 89,100

Elimination entries:
Dec. 31
Subsidiary Income......................... . 89,100
Retained Earning
29,700
Investment in Brosch
59,400
Dec. 31
Beginning Retained Earnings............... 87,750
Common Stock................................ 292,500
Paid-in Capital in Excess of Par.......... 58,500
Excess of Cost over Book Value............. 81,250
Investment in Brosch
520, 000
Dec. 31
Building
85, 000
Depreciation Expense....................... 4,125
Cumulative Translation Adjustment........ 3,625
Accumulated Depreciation................
4,250
Excess of Cost over Book Value.......... 81,250

DIF: M OBJ: 5
19. Kerry Manufacturing Company is a German subsidiary of a U.S. company. Kerry records its operations and prepares financial statements in euros. However, its functional currency is the British pound. Kerry was organized and acquired by the U.S. company on June 1, 20X4. The cumulative translation adjustment as of December 31, 20X6, was \$79,860. The value of the subsidiary's retained earnings expressed in British pounds and U.S. dollars as of December 31, 20X7, was 365,000 pounds and $\$ 618,000$, respectively. On March 1, 20X7, Kerry declared a dividend of 120, 000 euros. The trial balance of Kerry in marks as of December 31, 20X7, is as follows:

|  | Debit | Credit |
| :---: | :---: | :---: |
| Cash. | 240,000 |  |
| Accounts Receivable | 2,760,000 |  |
| Inventory (at cost) | 3,720,000 |  |
| Marketable Securities (at cost). | 2,040,000 |  |
| Prepaid Insurance. | 210,000 |  |
| Depreciable Assets. | 8,730,000 |  |
| Accumulated Depreciation. |  | 1,417,000 |
| Cost of Goods Sold. | 17,697,000 |  |
| Selling, General, and |  |  |
| Administrative Expense | 4,762,000 |  |
| Sales Revenue. |  | 26,430,000 |
| Investment Income |  | 180, 000 |
| Accounts Payable |  | 2,120,000 |
| Unearned Sales Revenue. |  | 960,000 |
| Loans and Mortgage Payable |  | 5,872,000 |
| Common Stock. |  | 1,500,000 |
| Paid-in Capital in Excess of Par |  | 210,000 |
| Retained Earnings. |  | 1,470,000 |
| Total. | $\overline{40,159,000}$ | 40,159,000 |

The marketable securities were acquired on November 1, 20X6, and the prepaid insurance was acquired on December 1, 20X7. The cost of goods sold and the ending inventory are calculated by the weighted-average method. The underlying costs have been incurred uniformly throughout the year. On June 1, 20X4, $60 \%$ of the depreciable assets existed, and the balance was acquired on March 1, 20X6. The depreciable assets are amortized over a 10-year period by the straight-line method. Of the total depreciation expense, $80 \%$ is traceable to the cost of goods sold and the balance is in general expenses. On November 1, 20X6, Kerry received a customer prepayment valued at 3,000,000 euros. On February 1, 20X7, 2,040,000 euros of the prepayment was earned. The balance remains unearned as of December 31, 20X7.

Relevant exchange rates are as follows:

|  | Pounds/Euro | \$/Pound |
| :---: | :---: | :---: |
| June 1, 20X4 | 0.310 | \$1.600 |
| March 1, 20X6 | 0.300 | \$1.640 |
| November 1, 20X6 | 0.305 | \$1.650 |
| December 31, 20X6 | 0.310 | \$1.680 |
| February 1, 20X7 | 0.302 | \$1.670 |
| March 1, 20X7. | 0.300 | \$1.660 |
| December 1, 20X7 | 0.290 | \$1.640 |
| December 31, 20X7 | 0.288 | \$1.640 |
| 20X7 average. | 0.297 | \$1.660 |

Required:
Prepare a remeasured and translated trial balance of the Kerry Manufacturing Company as of December 31, 20X7. Provide supporting schedules.

ANS:
For the Trial Balance Translation, please refer to Answer 11-1.
Schedule A
Remeasurement of Property, Plant, and Equipment and Accumulated Depreciation

|  | ```Balance``` | Exchange <br> Rate <br> (pds/euros) | Balance in Pounds |
| :---: | :---: | :---: | :---: |
| Property, plant, and equipment: $\quad$ - |  |  |  |
| June 1, 20X4, acquisition.... | 5,238,000 | 0.310 | 1,623,780 |
| March 1, 20X6, acquisition.... | 3,492,000 | 0.300 | 1,047,600 |
|  | 8,730,000 |  | 2,671,380 |
| Depreciation expense: |  |  |  |
| June 1, 20X4, acquisition. | 523,800 | 0.310 | 162,378 |
| March 1, 20X6, acquisition. | 349,200 | 0.300 | 104,760 |
|  | 873,000 |  | 267,138 |
| Accumulated depreciation: |  |  |  |
| $(5,238,000 \div 10)$, 43/12. | 1,876,950 | 0.310 | 581,855 |
| $(3,492,000 \div 10) \quad 22 / 12$. | 640,200 | 0.300 | 192,060 |
|  | 2,517,500 |  | 773,915 |

Schedule B
Remeasurement of Cost of Goods Sold and Selling, General, and Administrative Expenses

|  | Cost of Sales |  |  |
| :---: | :---: | :---: | :---: |
|  | euros | Pounds |  |
| Depreciation. | 698,400 | 213,710 | (267,138 x 80\%) |
| Other | 16,998,600 | 5, 048,584 | (16,998,600 x . 297) |
| Total | 17,697,000 | 5,262,294 |  |
|  | Selling, General, | Administr | tive |
|  | euros | Pounds |  |
| Depreciation. | 174,600 | 53,428 | (267,138 x 20\%) |
| Other | 4,587,400 | 1,362,458 | (4,487,400 x . 297) |
| Total | 4,762,000 | 1,415,886 |  |


|  | ```Balance``` | Exchange Rate <br> (pds/euros) | Balance <br> in Pounds |
| :---: | :---: | :---: | :---: |
| Sales Earned: |  |  |  |
| Feb. 1, 20X7. | 2,040,000 | 0.305 | 622,200 |
| Other Sales | 24,390,000 | 0.297 | 7,243,830 |
| Total Sales | 26,430,000 |  | 7,866,030 |

DIF: M OBJ: 5
20. A foreign subsidiary operates in a highly inflationary economy. The company's December 31, 20X2, trial balance includes the following:

| Equipment: |  |
| :---: | :---: |
| Acquired on June 1, 20X1 | 800,000 FC |
| Acquired on October 1, 20X2 | 600,000 FC |
| Inventory: |  |
| Valued at lower cost or market |  |
| Market Value | 182,000 FC |
| A cost of 184,000 FC represents 84,000 FC acquired |  |
| on December 1, 20X2, and 100,000 FC acquired on |  |
| October 1, 20X2. |  |
| Gain on sale of land: |  |
| This represents a gain from selling land that was |  |
| acquired on June 1, 20X1, at a cost of 50, 000 FC , |  |
| on October 1, 20X2. | 100,000 FC |

Relevant exchange rates are as follows:

| Date | Rate |
| :---: | :---: |
| June 1, 20X1 | \$0.69 |
| July 1, 20X1 | \$0.68 |
| October 1, 20X2 | \$0.71 |
| December 1, 20X2 | \$0.72 |
| December 31, 20X2 | \$0.74 |
| 20X2 average. | \$0.70 |

Required:
a. Discuss the criteria that must be satisfied in order to qualify as a highly inflationary economy.
b. Discuss how the remeasurement of statements of companies operating in such economies affects net income.
c. Calculate the dollar value of the trial balance accounts as of December 31, 20X2.

ANS:
a. A highly inflationary economy has a cumulative inflation rate of approximately $100 \%$ or more over a 3-year period.
b. In a highly inflationary economy, financial statements are remeasured using the temporal method. The adjustment that results from this method is included as a component of income and not shown as a separate component of owners' equity.
c. Equipment:


Inventory at lower of cost or market:
Market Value:
182,000 FC x \$0.74.................................. $\$$...
Cost:
84,000 FC x \$0.72..................................... $\$ 60.480$
100,000 FC x \$0.71..................................
\$131,480
Cost will be used for reporting purposes.
Gain on sale of land:
Cash (150,000 x \$0.71)................. 106,500
Land (50,000 x \$0.69).............. 34,500

Gain on Sale (inferred)............ 72,000

DIF: M OBJ: 6
21. A Kuwaiti subsidiary of Hiawatha Corp. (a U.S. firm) has certain balance sheet accounts on December 31, 20X4. The functional currency is the U.S. dollar and currency of record is the dinar and the parents books are kept in U.S. dollars.

Information relating to these account in U.S. dollars is as follows:

Cash
Accounts Receivable.......
Inventories ..............
Prepaid Insurance.........
Land.......................
Buildings
Translated at
Current Rate Historical Rate
\$150,000 $\quad \$ 150,000$
115,000 110,000

285,000 255,000
$\begin{array}{rr}12,000 & 10,000\end{array}$

## Required:

From the above information, prepare the asset portion of the subsidiary's trial balance.

ANS:

| sh | \$ 150,000 |
| :---: | :---: |
| Accounts Receivable | 115,000 |
| Inventories | 255,000 |
| Prepaid Insurance. | 10,000 |
| Land. | 180,000 |
| Building. | 800,000 |
| Total Assets | \$1,510,000 |

DIF: M OBJ: 6
22. Complete the following table:

|  | Remeasurement | Translation |
| :---: | :---: | :---: |
|  | Investee's books of record remeasured into functional currency TEMPORAL METHOD | Functional currency translated into parent/investor's repo currency - FUNCTIONAL CURRENCY METHOD |
| Assets and Liabilities |  |  |
| Monetary items |  |  |
| Not monetary items |  |  |
| Revenues and Expenses |  |  |
| Representing amortization of historical amounts |  |  |
| Not representing amortization of historical amounts |  |  |
| Equity accounts, (excluding retained earnings) |  |  |
| Recognition of: |  |  |
| Measurement gain/loss |  |  |
| Translation adjustment |  |  |

ANS:

|  | Remeasurement | Translation |
| :---: | :---: | :---: |
|  | Investee's books of record remeasured into functional currency TEMPORAL METHOD | Functional currency translated into parent/investor's repo currency - FUNCTIONAL CURRENCY METHOD |
| Assets and Liabilities |  |  |
| Monetary items | Remeasure using the current exchange rate | Translate using the current exchange rate |
| Not monetary items | Remeasure using the historical exchange rate | Translate using the current exchange rate |
| Revenues and Expenses |  |  |
| Representing amortization of historical amounts | Remeasure using the historical exchange rate | Translate using the weighted average exchange rate |
| Not representing amortization of historical amounts | Remeasure using the historical exchange rate | Translate using the historical exchange rate |
| Equity accounts, (excluding retained earnings) | Remeasure using the historical exchange rate | Translate using the historical exchange rate |
| Recognition of: |  |  |
| Measurement gain/loss | As a component of net income | As a component of net income translated at the weighted average rate for the period |
| Translation adjustment | Not applicable | Recognize as a component of other comprehensive income |
| DIF: D | OBJ: 5 |  |

23. On January 1, 20X2, U.S.A. Inc. created an Algerian subsidiary, Niko, Inc. The books are kept in Algerian dinars, but the functional currency is the U.S. dollar. Dividends are paid on December 31, and income is earned evenly throughout the year. The earnings and dividends of Niko in dinars are as follows:

|  | Net Income | Dividends |
| :---: | :---: | :---: |
| 20X2 | 100, 000 | 50,000 |
| 20X3 | 200, 000 | 80,000 |
| 20X4 | 325, 000 | 105,000 |

Exchange rates are given below.

|  | Yearly Average | Dec. 31 Spot |
| :---: | :---: | :---: |
| 20X2 | . 0175 | . 0185 |
| 20X3 | . 0188 | . 022 |
| 20X4 | . 019 | . 025 |

Required:
Calculate the balance in retained earnings for Niko in dollars as of December 31, 20X4.

ANS:
Net Income
$\frac{1,750}{100,000 \times .0175}=\$ 1,760$
$200,000 \times .0188=$
$325,000 \times .019=$
Total

| Dividends |  |  |
| :---: | :---: | :---: |
| 50,000 | X . 0185 | = \$ 925 |
| 80,000 | X . 022 | $=1,760$ |
| 105,000 | X . 025 | 2,265 |
| Total |  | \$4,950 |

Retained earnings = \$11,685 - \$4,950 = \$6,735

DIF: M OBJ: 5
24. Renta USA, Inc. formed a foreign subsidiary on January 1, 20X3. The subsidiary's books are kept in their function currency. Income earned in 20X3 and 20X4 totaled 100,000 FC and 120,000 FC, respectively. Dividends of 400,000 FC have been paid on December 31 or each year. In addition, 1000 shares of common stock (no par) were issued on July 1, 20X4 for 20 FC each.

Exchange rates relating this foreign currency to U.S. dollars are as follows:

January 1, 20X3............. 1.00
December 31, 20X3........... 1.04
Average 20X3................ 1.02
July 1, 20X4................ 1.05
December 31, 20X4........... 1.10
Average 20X4................. 1.08

Required:
Calculate the owners' equity of the subsidiary on December 31, 20X4.

ANS:

```
Common Stock:
    150,000 x 1.00 = $150,000
    20,000 x 1.05 = 21,000
            Total $171,000
```

Retained Earnings:

| Net Income |
| :---: |
| $100,000 \times 1.02=\$ 102,000$ |
| $120,000 \times 1.08=\begin{array}{r}129,600 \\ \text { Total } \\ \end{array} \quad \begin{array}{l}\$ 231,600 \\ =======\end{array}$ |


| Dividends |  |
| ---: | ---: |
| $40,000 \times 1.04=$ | $\$ 41,600$ |
| $40,000 \times 1.10=$ | 44,000 |
| Total | $\$ 85,600$ <br>  |

Retained earnings = \$231,600 - \$85,600 = \$146,000
Common Stock........ \$171,000
Retained Earnings....
Total Owner's Equity. $\$ 317,000$
146,000
DIF: E OBJ: 5
[[Insert ANSWER 11-1 from Excel spreadsheet]]

## Chapter 12 - Interim Reporting and Disclosures about Segments of an Enterprise

## MULTIPLE CHOICE

1. The primary emphasis of interim reporting is on:
a. interim cash flow
b. the interim statement of financial position
c. interim retained earnings
d. interim income data

ANS: D DIF: E OBJ: 1
2. Which of the following best describes the proper accounting for interim financial reports?
a. The interim period is viewed as an integral part of the annual accounting period.
b. The interim period is viewed as a distinct, independent accounting period.
c. Interim net income should be determined by using the same principles as those for the annual accounting period.
d. Net income should be computed on the cash basis except for sales, cost of goods sold, and depreciation.

ANS: A DIF: M OBJ: 1
3. If a company is utilizing LIFO inventory costing, what might be the effect on the calculation of Cost of Goods sold in an interim financial statement?
a. cost of goods sold is calculated on a historical cost basis only
b. the interim cost of goods sold includes the replacement cost of temporarily liquidated inventory
c. cost of goods sold is not adjusted for any changes due to liquidation of LIFO inventory
d. any of the effects of liquidation are deferred until year end

ANS: B DIF: M OBJ: 2
4. During the first quarter, a company's application of lower of cost or market methods indicated a $\$ 150,000$ loss from a temporary market decline, which is expected to be restored in the fiscal year. During the second quarter, the market reversed the decline. Which of the following situations indicates a proper treatment of these facts?
a. A $\$ 37,500$ loss recognized in the first quarter and no recovery recognized in the second quarter.
b. A \$150,000 loss recognized in the first quarter and a \$90,000 recovery in the second quarter.
c. A \$150,000 loss recognized in the first quarter and a \$50,000 recovery in the second quarter.
d. No loss recognized in the first quarter and no recovery recognized in the second quarter.

ANS: D
DIF: D
OBJ: 2
5. For interim reporting, which of the following statements is NOT true? a. Under a standard cost system, all variances should be recognized in the quarter in which they occur.
b. Under the LIFO method, recognition of layer liquidations, thought to be temporary, is postponed by using replacement cost in the calculation of interim cost of goods sold.
c. Under the lower of cost or market determination of ending inventory, a gain may not be recognized in an interim period.
d. All of these statements are true.

ANS: B
DIF: M
OBJ: 2
6. Abel Corporation sold Equipment in the first quarter of $20 \times 5$ at a $\$ 50,000$ loss. How much of the loss should appear in the $20 \times 5$ second- and third-quarter income?
a. \$37,500 and \$37,500
b. \$50, 000 and $\$ 50,000$
c. \$0 and \$0
d. \$100,000 and \$0

ANS: C
DIF: D
OBJ: 2
7. In order to generate interim financial reports that contain a reasonable
portion of annual expenses, which of the following statements is true?
a. an allocation of a portion of an annual bonus would be made as an interim adjustment
b. any adjustments for inventory shrinkage would be deferred to year end
c. the allowance for uncollectible accounts receivable will be revised at year end
d. None of the above are true

ANS: A DIF: E OBJ: 2
8. Which of the following statements is NOT true concerning the determination of the effective tax rate to be used for interim reporting?
a. Tax rate changes should not be accounted for retroactively.
b. The effective tax rate for the entire year should be estimated.
c. The effective tax rate should reflect anticipated tax credits.
d. The estimated tax rate should reflect extraordinary items.

ANS: D DIF: E OBJ: 3
9. Abitz Corporation has the following pretax operating income in its first three quarters of 20X5. The effective tax rate for each quarter is provided. Determine the third quarter income tax or benefit.

| Quarter | Current <br> Period | Effective <br> Tax Rate |
| :--- | :---: | :---: |
| First | $\$ 40,000$ <br> Second | $25 \%$ <br> Third |
|  | $50,000)$ |  |

a. \$3,750
b. \$15,000
c. \$15,750
d. \$20,000

ANS: C
DIF: M
OBJ: 3
10. Nonordinary items resulting in income or loss
a. include unusual but not infrequent gains.
b. are treated the same as ordinary items when calculating the effective tax rate.
c. are always treated as a total group when calculating the effective rate for the quarter.
d. are always excluded from interim reporting.

ANS: A
DIF: E
OBJ: 4
11. Which of the following statements about interim reporting is false? a. If a company reports year-to-date financial information for the current year, it also must report the last twelve month-to-date information.
b. Under some circumstances, a company can restate the financial information of an earlier current-year quarter.
c. Tax benefits arising from earlier interim periods in the current year can be carried forward to the current interim period to offset tax expense.
d. The total of all nonordinary losses in the current quarter multiplied by the effective tax rate equals the amount of tax expense to be allocated among those losses.

ANS: A
DIF: M
OBJ: 3, 4
12. The incremental income tax effect utilized to determine the tax effect of an extraordinary item is calculated by:
a. applying the estimated effective tax rate against the amount of the extraordinary item
b. the difference between the gross tax calculated on continuing operations and the gross tax on income from all sources, before tax credits are applied.
c. the difference between the estimated net tax calculated on the projected annual income from continuing operations and the estimated net tax calculated on projected annual income, including the non-ordinary items, after tax credits have been considered
d. none of the above.

ANS: C
DIF: M
OBJ: 4
13. Which of the following best describes how the tax benefit resulting from the extraordinary loss in an interim period is recognized?
a. The tax benefit is recognized in the period in which it occurs using the estimated effective rate.
b. The tax benefit is recognized in the period in which it occurs using the average tax rate for all income.
c. The tax benefit is allocated over the current and remaining periods using the estimated effective rate.
d. The tax benefit is recognized only if, more likely than not, the loss may be offset against income.

ANS: D
DIF: E
OBJ: 4
14. Which of the following best describes the treatment given a change in accounting principles made during the second quarter?
a. The cumulative effect should be recognized in the quarter in which the decision to change is made.
b. Regardless of the quarter of change, the recognition is deferred until year end.
c. The cumulative effect is computed as of the beginning of the year.
d. Interim periods prior to the period of change are not restated.

ANS: C DIF: M OBJ: 3
15. Which of the following items should be reported with interim data?
a. basic and diluted earnings per share
b. contingent items
c. changes in accounting estimates
d. all of the above

ANS: D
DIF: E
OBJ: 1
16. When a company makes a second quarter decision to discontinue a segment, the first quarter tax expense:
a. Results are not restated.
b. is split between the tax expense calculated on restated quarter one income from continuing operations and the discontinued segment by subtracting the tax expenses calculated on the restated first quarter income from the original tax expense calculated for the first quarter, before the decision was made.
c. is used to determine the incremental tax effect.
d. is used to calculate the effective tax rate for the discontinued segment.

ANS: B DIF: M OBJ: 3
17. The acquisition of a paper mill by a large publishing company is an example of
a. horizontal integration.
b. vertical integration.
c. diversification.
d. consolidation.

ANS: B
DIF: E
OBJ: 5
18. In determining if two operating segments may be combined into one, which
of the following factors should be considered?
a. similarities regarding profit margins
b. whether the nature of the products and services is similar
c. whether there is a similar amount of intracompany sales
d. whether there is a similar number of employees

ANS: B
DIF: E
OBJ: 5
19. Which of the following is NOT considered when determining whether an operating segment qualifies as a reportable segment?
a. revenue of the segment
b. the assets of the segment
c. the number of foreign offices
d. the absolute amount of its profit or loss

ANS: C DIF: E OBJ: 6
20. Which of the following is not a limitation on the number of reportable segments?
a. Consistency, i.e., the number of reportable segments this period, must be the same as last period.
b. Usually the number of segments should not exceed 10.
c. At least $75 \%$ of the combined revenue of sales to unaffiliated firms should be traceable to reportable segments.
d. None of the above is a limitation.

ANS: A
DIF: M
OBJ: 6
21. In determining whether a segment should be reported, a profit and loss test can be used. The test selects segments for reporting by:
a. only including profitable segments.
b. comparing the absolute value of a segment's profit or loss to $10 \%$ of all segments cumulative profit or cumulative loss, whichever is higher.
c. comparing the absolute value of a segment's profit or loss to $10 \%$ of all segments combined profits and losses.
d. comparing the profit or loss of a segment to $10 \%$ of all segment external revenue.

ANS: B
DIF: M
OBJ: 6
22. A corporation made up of an automobile manufacturer, a plastics maker, a spark plug manufacturer, a steel mill, and a battery maker is an example of a
a. horizontally-integrated company.
b. vertically-integrated company.
c. diversified company.
d. conglomerate.

ANS: B
DIF: E
OBJ: 5
23. The management approach to segmental reporting
a. focuses on how management organizes information for internal decision making.
b. requires that the company's chief executive officer decide what segments will be reported.
c. separates the costs of management from the costs of operations to determine segment profit or loss.
d. is required only in the United States.

ANS: A DIF: M OBJ: 5
24. Ansfield, Inc. has several potentially reportable segments. The following financial information has been determined for the current fiscal year:

Consolidated net income ............................. \$ 1, 000,000
Operating income before taxes....................... 1, 500,000
Net operating income of all segments............... 1, 350,000
Total consolidated revenue............................. 8, 000,000
Total revenue of all segments,
excluding intersegments sales...................... 7,000,000
Total intersegment sales ............................. 1, 200,000
Consolidated total assets............................... 50, 000 ,000
Total assets of all segments......................... 45, 000,000
The minimum amount of revenues a segment must have to qualify as reportable is $\qquad$ .
a. $\$ 700,000$
b. $\$ 800,000$
c. $\$ 820,000$
d. The answer cannot be determined from the information given.

ANS: C DIF: D OBJ: 6
25. Ansfield, Inc. has several potentially reportable segments. The following financial information has been determined for the current fiscal year:

| Consolidated net income | \$ 1,000,000 |
| :---: | :---: |
| Operating income before taxes | 1,500, 000 |
| Net operating income of all segments | 1,350,000 |
| Total consolidated revenue | 8,000,000 |
| Total revenue of all segments, |  |
| excluding intersegments sales. | 7,000,000 |
| Total intersegment sales | 1,200, 000 |
| Consolidated total assets | 50,000,000 |
| Total assets of all segmen | 45,000,000 |

The minimum amount of profit or loss a segment must have to qualify as reported is $\qquad$ .
a. \$100,000
b. $\$ 135,000$
c. $\$ 150,000$
d. The answer cannot be determined from the information given.

```
ANS: D
DIF: D
OBJ: 6
```

26. Ansfield, Inc. has several potentially reportable segments. The following financial information has been determined for the current fiscal year:

| d net income | \$ 1, 000, 000 |
| :---: | :---: |
| Operating income before taxes | 1,500,000 |
| Net operating income of all s | 1,350, 000 |
| Total consolidated revenue | 8,000,000 |
| Total revenue of all segments |  |
| excluding intersegments sales | 7,000,000 |
| Total intersegment sales | 1,200, 000 |
| Consolidated total assets | 50, 000, 000 |
| Total assets of all segments | 45, 000, 000 |

The minimum amount of assets a segment must have to qualify as reportable is $\qquad$ _.
a. \$4,500, 000
b. \$5,000,000
c. $\$ 37,500,000$
d. The answer cannot be determined from the information given.

ANS: A DIF: M OBJ: 6
27. Ansfield, Inc. has several potentially reportable segments. The following financial information has been determined for the current fiscal year:


ANS: B DIF: M OBJ: 6
28. With regard to major customers, which of the following items is not true?
a. If it qualifies, the federal government is considered a single major customer.
b. The total amount of the sales to each major customer must be disclosed.
c. The names of the major customers must be disclosed.
d. The identity of the segments making the sales must be disclosed.

ANS: C
DIF: M
OBJ: 7
29. Which of the following statements about required disclosures in segmental reporting is not true?
a. No more than ten segments may be reported.
b. The name of each major customer does not have to be disclosed.
c. Even if there is only one reportable segment, the company must report revenues from external customers for each product or service or each group of related products or services.
d. Segmental information must be included in interim reporting.

ANS: A DIF: M OBJ: 7
30. It is possible for segments to qualify as reportable, but not represent a material portion of the enterprise. What test is applied to ensure the segments reported represent a significant portion of enterprise activity?
a. Combined external segment revenues for reportable segments exceed $75 \%$ of internal and external segment revenues.
b. Total internal and external segment revenue exceeds $75 \%$ of total consolidated revenue.
c. Total external segment revenue of the reportable segments exceeds $75 \%$ of consolidated revenue.
d. Total segment assets of the reportable segments exceeds $75 \%$ of total consolidated assets.

ANS: C DIF: M OBJ: 6

## PROBLEM

1. Explain the difference in the independent and integral viewpoints of accounting for interim periods. Which method best describes the accepted accounting practice for interim financial reporting?

## ANS:

The independent or distinct approach views the interim period as a separate period from that of the annual period. Consequently, accounting procedures used for the interim financial statements should be the same as those applied for annual purposes.

The integral approach views the interim period as an integral part of the annual period. Therefore, adjustments and estimates should be made so that predictions of annual amounts may be made.

The integral approach is the accepted viewpoint under current accounting practices.

DIF: E OBJ: 1
2. APB Opinion No. 28 permits certain modifications to year-end inventory rules.

## Required:

Comment on the acceptability of the following independent situations concerning inventory valuation for an interim period:
a. Management believes that since its firm does not have a perpetual inventory system, it would be too costly to take a physical inventory. Consequently, management has suggested to the accounting department that they estimate ending inventory.
b. Since the LIFO inventory base was liquidated in the first quarter, management has recommended that the accounting department switch to FIFO valuation of inventory.
c. Since the first quarter is a slow period for a manufacturing firm, management has suggested that the unfavorable volume variances from the firm's standard cost system be deferred until year end.

ANS:
a. Gross profit and other sound methods of estimating inventory are permitted.
b. Changing inventory methods must be justified. Switches are rare. Liquidation of a base layer of inventory generally is not an acceptable reason for a change. However, if the liquidation is temporary, replacement cost can be used to determine the cost of goods sold.
c. Variances that are planned and expected to be absorbed by year end may be deferred at interim reporting dates.

DIF: M OBJ: 2
3. Abbott Inc. began the year with 750 units of inventory valued at $\$ 20$ each under LIFO. During the first quarter, 300 units were purchased at $\$ 25$ each and another 250 units were purchased at $\$ 28$ each. Assume that 200 units are on hand at the end of the first quarter and that the current replacement cost is $\$ 30$ per unit.

Required:
If Abbott plans to have 500 units on hand at year end, determine the cost of goods sold for the first quarter.

ANS:
Units sold = $750+300$ + $250-200=1100$
Cost of goods sold:


DIF: M OBJ: 2
4. The following events took place in Morgan Corporation's second quarter.
a. An expired insurance policy was replaced by a $\$ 12,000,12$-month policy.
b. Morgan sold marketable securities at a $\$ 10,000$ gain.
c. Research and development costs of $\$ 15,000$, which were expected to benefit the company over the next 12 months, were incurred.
d. On the first day of the quarter, Morgan signed a one-year, \$100,000 bank note carrying an $8 \%$ interest rate.
e. Used equipment with a book value of $\$ 36,000$ was sold for \$18, 000 .

Required:
Determine the effect of the above events on Morgan Corporation's thirdquarter income.

ANS:
a. Insurance expense: $\$ 1,000 \times 3=\$ 3,000$ or $\$ 12,000 \div 4=\$ 3,000$
b. Gain recognized in current quarter: \$10,000
c. Research and development expenses: $\$ 15,000 \times 1 / 4=\$ 3,750$
d. Interest expense accrued: 100,000 x . $08 \times 1 / 4=\$ 2,000$
e. Loss recognized in current quarter: \$36,000 - \$18,00 = \$18,000

DIF: E OBJ: 2
5. Lancaster Inc. expects to have taxable income of $\$ 275,000$ for $20 \times 1$ and a tax credit of $\$ 12,250$. Assume that the graduated tax rate schedule is as follows:

| \$1-\$100, 000 | 15\% |  |
| :---: | :---: | :---: |
| \$100, 000-200, 000 | 22\% |  |
| \$200, 000-460, 000 | 28\% | + 5\% surtax |
| \$460,000 and above | 30\% |  |

Required:
Determine the tax expense for the first quarter, assuming that taxable income is \$65,000.

ANS:
Estimated annual tax:


Effective rate: $\quad \frac{\$ 49,500}{\$ 275,000}=18 \%$

First-quarter tax expense $=\$ 65,000 \times$. $18=\$ 11,700$

DIF: E
OBJ: 3
6. Scott Inc. expects to have taxable income of $\$ 375,000$ for $20 \times 1$ and estimates annual tax credits of $\$ 22,500$. Included in Scott's income is interest income on municipal securities totaling $\$ 45,000$ and meals and entertainment expenses of $\$ 62,500$ of which $50 \%$ are not deductible under current tax code. Assume that the graduated tax rate schedule is as follows:

| \$1-\$100, 000 | 15\% |
| :---: | :---: |
| \$100, 000-200, 000. | 22\% |
| \$200, 000-460, 000. | 28\% |
| \$460,000 and abov | 30\% |

Required:
Determine the tax expense for the first quarter, assuming that taxable income is \$85,000.

ANS:
Income subject to tax:


Estimated annual tax:

| \$100,000 x | . 15. | \$ 15,000 |
| :---: | :---: | :---: |
| 100,000 x | . 22 | 22,000 |
| 161,250 x | . 28. | 45,150 |
|  |  | \$ 82,150 |
| Tax credit |  | $(22,500)$ |
| Total ta |  | \$ 59,650 |

Effective rate: $\quad \frac{\$ 59,650}{\$ 361,250}=16.5 \%$

First-quarter tax expense $=\$ 85,000 \times$. $165=\$ 14,025$

```
DIF: M OBJ: 3
```

7. A list of selected information from Aanstad Inc. follows. Regarding its first-quarter performance for 20X1,
a. Sales were $\$ 750,000$.
b. Cost of goods sold was $\$ 502,750$.
c. Total depreciation expense was $\$ 75,000$ (part of selling and administrative expenses). As of the beginning of the first quarter, Aanstad began using straight-line depreciation. Had they used the old accelerated method, the current depreciation would have been $\$ 80,000$. The cumulative effect of this change was a \$120,000 decrease in income before taxes.
d. Other selling and administrative expenses were $\$ 30,000$ excluding advertising expense. The two quarters of advertising were prepaid at $\$ 18,000$ at the start of the first quarter.
e. The cost of goods sold includes a favorable volume variance of $\$ 100,000$. The volume variance is expected to be offset by the slow activity anticipated in the fourth quarter.
f. Aanstad's estimated effective tax rate is $25 \%$.

Required:
In good form, prepare the first-quarter income statement for Aanstad.

ANS:
Aanstad Inc.
Income Statement
For the First Quarter 20X1

| Sales | \$ 750,000 |
| :---: | :---: |
| Cost of goods sold | (502,500) |
| Gross profit | \$ 247,500 |
| Selling and administrative expenses* | (114, 000 ) |
| Income from operations before taxes | \$ 133,500 |
| Income tax expense. | 33,375 |
| Income from operations before effect of change in accounting principle. | \$ 100,125 |
| Cumulative effective of change in accounting principle (net of tax)**. | $(90,000)$ |
| Net income | \$ 10,125 |

* 75,000 + \$30,000 + \$9,000 = \$114,000
**\$120,000 x 25\% = \$90,000

DIF: M OBJ: 2
8. Good Time, Inc. is a worldwide manufacturer of toys and games. In accordance with generally accepted accounting principles, quarterly statements are prepared. At the end of the first quarter of 20X2, the following data have been collected from the financial records:
a. Sales were $\$ 14,680,000$.
b. Expenses related directly to the sales were $\$ 10,600,000$, of which $\$ 9,500,000$ related to the cost of goods sold.
c. Good Time, Inc. employs the LIFO method for inventory valuation and has liquidated a portion of its beginning inventory. The liquidation was in the amount of \$600,000, which is included in the cost of goods sold of $\$ 9,500,000$, and the cost to replace this inventory will be $\$ 1,400,000$.
d. Other transactions during the first quarter were as follows:
(1) Research and development costs were incurred in the amount of $\$ 4,000,000$ and are expected to benefit equally the next 3 years.
(2) Advertising costs were \$75,000, of which one-third related to the first-quarter sales.
(3) There was a gain on the early extinguishment of debt in the amount of $\$ 1,115,000$.

Assume that Good Time, Inc. had 500,000 shares of common stock outstanding throughout the first quarter.

Required:
In good form, present the quarterly income statement of Good Time, Inc. (assume an effective income tax rate of 40\%).

ANS:
Good Time, Inc.
Income Statement
For the 3-Month Period Ended March 31, 20X1

| Sales |  | \$14, 680, 000 |
| :---: | :---: | :---: |
| Cost of goods sold. |  | 10, 300, 000 ${ }^{1}$ |
| Gross profit |  | \$ 4,380,000 |
| Expenses: |  |  |
| Selling. | \$1,100, 000 |  |
| Research | 1,000, 000 |  |
| Advertising | 25,000 | 2,125,000 |
| Income from continuing operations before income taxes and extraordinary items... |  | \$ 2,255,000 |
| Provision for income taxes |  | 902,000 |
| Income from continuing operations before extraordinary items......... |  | \$ 1,353,000 |
| Extraordinary gain on early extinguishment of debt (less applicable income taxes |  |  |
| of \$446,000) |  | 669,000 |
| Net income |  | \$ 2,022,000 |

Income before extraordinary gain.......... \$2.706
Gain on early extinguishment of debt...... 1.338
Net income.................................. $\$ 4.044$
=====
${ }^{1}(\$ 9,500,000-\$ 600,000+\$ 1,400,000)$

DIF: D OBJ: 2
9. Cracker Corporation's first-quarter 20X4, pretax income is $\$ 55,000$. The company anticipates an annual tax credit of $\$ 15,500$. Cracker is projecting income for the remaining three quarters of $\$ 135,000$. For the second quarter of 20X4, Cracker reports $\$ 85,000$ of pretax income with a projected pre-tax income for the remainder of the year of $\$ 165,000$. Cracker does not have any permanent differences between taxable income and financial income.

In the second quarter, Cracker suffers an uninsured loss of one of its warehouses. The loss is determined to be unusual in nature and infrequent in occurrence. The amount of the loss is determined to be \$140, 000 .

The current tax schedule is:
\$1-\$100,000..................................... . . .
\$100,000-200,000................................. . . .
\$200,000-460,000..............................
\$460,000 and above........................... 30\%

Required:
Calculate the first and second quarter interim tax expenses on continuing income and on the non-ordinary item.

ANS:
Gross Tax Schedule:


Tax Summary Schedule:

|  | Income |  | Effective Tax Rate | Tax Expense |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Qtr | YTD |  | YTD | Prior | Qtr |
| Continuing: |  |  |  |  |  |  |
| Qtr1 | 55,000 | 55,000 | 10.2\% | 5,610 | 0 | 5,610 |
| Qtr2 | 85,000 | 140,000 | 16.7\% | 23,380 | 5,610 | 17,770 |
| Non-Ord Item Qtr2 | $140,000)$ | $(140,000)$ | ** | $(37,100)$ | 0 | $(37,100)$ |

** Incremental tax effect of the below the line item is calculated by taking the difference between the net tax calculated on continuing operations and the net tax calculated on all sources:

$$
\begin{array}{ll}
\text { Net Tax-Continuing Operations } & \$ 50,900 \\
\text { Net Tax-Income from All Sources } & 13,800 \\
\text { Incremental Benefit of the loss } & \$ 37,100
\end{array}
$$

DIF: D OBJ: 3, 4
10. Millstone Company's first-quarter 20X3, pretax income is $\$ 25,000$. The company anticipates an annual tax credit of $\$ 5,500$. Millstone is projecting income for the remaining three quarters of $\$ 95,000$. For the second quarter of 20X4, Millstone reports $\$ 55,000$ of pretax income with a projected pre-tax income for the remainder of the year of $\$ 65,000$. Millstone does not have any permanent differences between taxable income and financial income.

In the second quarter, Millstone decided to change their depreciation method used for financial reporting purposes. The change in depreciation methods has the following effect on the calculation and projection of income for Millstone:

|  | Actual Income |
| :---: | :---: |
| Qtr1 | 20,000 |
| Qtr2 | 55,000 |

Projected Remainder
85,000
65,000

The effect of the change on prior years would have been a decrease to income of $\$ 30,000$.

The current tax schedule is:
\$1-\$100,000................................ 15\%
\$100,000-200,000............................
\$200,000-460,000............................
\$460,000 and above......................... 30\%

Required:
Calculate the first and second quarter interim tax expenses on continuing income and on the non-ordinary item.

ANS:
Gross Tax Schedule:


Gross Tax Schedule:


Tax Summary Schedule:

|  | Income |  | Effective Tax Rate | Tax Expense |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Qtr | YTD |  | YTD | Prior | Qtr |
| Continuing: |  |  |  |  |  |  |
| Qtr1 | 25,000 | 25,000 | 11.1\% | 2,775 | 0 | 2,775 |
| Qtr1R | 20,000 | 20,000 | 10.1\% | 2,020 | 2,775 | (755) |
| Qtr2 | 55,000 | 75,000 | 12.7\% | 9,525 | 2,020 | 7,505 |

Non-Ord Item:

| Qtr1 | $(30,000)(30,000)$ | $* *$ | $(4,850)$ | 0 | $(4,850)$ |
| :--- | ---: | :--- | ---: | ---: | ---: |
| Qtr2 | $(30,000)$ | $* *$ | $(6,600)$ | $(4,850)$ | $(1,750)$ |

** Incremental tax effect of the below the line item is calculated by taking the difference between the net tax calculated on continuing operations and the net tax calculated on all sources:

|  | Qtr1 | Qtr2 |
| :--- | ---: | ---: |
| Net Tax-Continuing Operations | $\$ 10,600$ | $\$ 17,200$ |
| Net Tax-Income from All Source | 5,750 | 10,600 |
| Incremental Benefit of the loss | $\$ 4,850$ | $\$ 6,600$ |

DIF: D OBJ: 3, 4
11. Corriveau Industries decided to switch from an accelerated depreciation method to a straight-line method in the second quarter of 20X1. This is classified as a cumulative effect of a change in accounting principle. The first-quarter, pretax income reported was $\$ 30,000$, and projected pretax income for 20X1 was \$90,000. If Corriveau had used straight-line depreciation for the quarter, pretax income would have been $\$ 35,000$ and projected pretax income for 20x1 would have been $\$ 110,000$. The cumulative effect on prior years from the change is a $\$ 50,000$ increase in retained earnings. The second-quarter income using straight-line depreciation is $\$ 20,000$, and the expected annual earnings continue to be \$110, 000. Assume that Corriveau is subject to a flat $25 \%$ statutory tax rate for 20X1. Corriveau is expecting $\$ 5,000$ of tax-free income during the third and fourth quarters of 20X1.

Required:
For all categories of income, calculate the interim tax expense for the first quarter, first quarter restated, and second quarter.

ANS:

|  | Type of | Income (Loss) |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  |  | Current | Year E | Effective |
| Quarter |  | Period | to Date | Tax Rate |
| First | Continuing Operation | \$30,000 | \$30,000 | 23.61\% ${ }^{\text {¹}}$ |
| First, Restated | Continuing Operation | 35, 000 | 35, 000 | $23.86 \%^{2}$ |
|  | Cumulative Effect | 50,000 | 50,000 |  |
| Second | Continuing Operation | 20,000 | 55,000 | $23.86{ }^{2}$ |
|  | Cumulative Effect |  | 50,000 |  |
| Quarter | Type of Income | Tax Expense (Benefit) |  |  |
|  |  | Year | Previously | y Current |
|  |  | to Date | Reported | Period |
| First | Continuing Operation | \$ 7,083 | \$ 0 | \$ 7,083 |
| First, Restated | Continuing Operation | 8,351 | 0 | 8,351 |
|  | Cumulative Effect | 12,500 ${ }^{3}$ | 0 | 12,500 |
| Second | Continuing Operation | 13,123 | 8,351 | 4,772 |
|  | Cumulative Effect | 12,500 | 12,500 | 0 |

${ }^{1}(\$ 90,000-\$ 5,000) \times .25=\$ 21,250$

$$
\$ 21,250=23.61 \%
$$

$$
\$ 90,000
$$

${ }^{2}\left(\$ 110,000-\frac{\$ 5,000) \times .25}{\$ 110,000}=23.86 \%\right.$
${ }^{3}$ The incremental tax on the cumulative effect is $\$ 12,500$.

DIF: M
OBJ: 3, 4
12. For each of the following independent cases, determine the estimated effective tax rate to be used for the current quarter's interim statements.

|  | Case A | Case B | Case C | Case D |
| :---: | :---: | :---: | :---: | :---: |
| Year-to-date income (loss) | \$ 80,000 | \$(20,000) | \$(30,000) | \$(120, 000) |
| Projected income (loss) |  |  |  |  |
| for the balance of the year | 120,000 | 60,000 | 130, 000 | 60,000 |
| Permanent tax differences (tax-free income) | 10,000 |  | 10,000 |  |
| Estimated annual tax credits | 7,000 |  |  | 2,000 |
| Prior 2 years' income (loss) | N/A | (30, 000) | N/A | 20,000 |
| Prior 2 years' tax rate | N/A | 35\% | N/A | 35\% |
| Is projected income "more likely than not"? | N/A | No | Yes | Yes |
| Deferred tax liabilities expected to reverse |  |  |  |  |
| in next 20 years | N/A | N/A | N/A | 3,000 |
| Current statutory tax rate | 40\% | 40\% | 40\% | 40\% |

ANS:

|  | Case A | Case B | Case C |  |
| :---: | :---: | :---: | :---: | :---: |
| Year-to-date income (loss) $\$ 80,000$ (loss) forProjected income |  |  |  |  |
|  |  |  |  |  |
| the balance of the year | 120,000 | 60,000 | 130,000 | 60,000 |
|  | \$200, 000 | \$ 40,000 | \$100,000 | \$ (60,000) |
| Permanent difference | $(10,000)$ |  | (10,000) | -- |
| Total income | \$190,000 | \$ 40,000 | \$ 90,000 | \$ (60,000) |
| Tax (benefit) at statutory |  |  |  |  |
|  |  |  |  |  |
| Tax credits | (7,000) |  |  | $(2,000)$ |
| Net tax expense (benefit) | \$ 69,000 | \$ 16,000 | \$ 36,000 | \$ $(26,000)$ |
| Benefit limited to | N/A | $0^{1}$ | N/A | $(10,000)$ |
| Estimated effective tax rate | 34.5\% | 0\% | 36.0\% | 8.33\% |
| ${ }^{1}$ The YTD loss cannot be offset by projected income that is not "more |  |  |  |  |
| likely than not." No carryback income is available for offset. |  |  |  |  |
| ${ }^{2}$ When the YTD loss exceeds the annual loss, the tax benefit and effective tax rate must be based on the YTD loss. $\$ 20,000$ (prior 2 years) $\times 35 \%+\$ 3,000$ (deferred tax credits) $=\$ 10,000$. |  |  |  |  |

13. The following lists account titles found on the books of Icell Corporation:
a. Research and Development
b. Inventory
c. Annual Bonuses
d. Unfavorable Materials Usage Variance

Required:
Discuss how each of these items is accounted for in interim financial statements.

ANS:
a. Research and Development--This account, under normal fiscalyear policies, would normally be expensed in the current period. For interim purposes, the account balance may be allocated among those interim periods of the current year that benefit.
b. Inventory--This account is handled as the normal year-end account, except for certain variations. Specifically, the inventory may be valued by the gross profit method, and a write-down of inventory to lower of cost or market can be recovered in later interim periods if the market recovers. This option extends only until year end. Also, there may be an allowance for LIFO replacement.
c. Annual Bonuses--A portion of estimated annual bonuses must be allocated to each interim period of the current year. Failure to recognize such bonuses on an interim basis would reduce the predictive value of the interim data.
d. Unfavorable Materials Usage Variance--The treatment of this account is based on whether it is expected to be absorbed by year end. If a usage variance has arisen in an interim period and is expected to be reflected in annual statements, the variance should be recognized in the interim period in which it occurs.

DIF: E OBJ: 1, 2
14. Futura Corporation reported pretax net income of $\$ 30,000$ in the first quarter of $20 \times 1$. The company anticipated pretax net income of $\$ 90,000$ for the year. During the second quarter, after issuing the first-quarter interim statement, Futura decided to discontinue its electronics division and adopted a formal plan for its disposal.

During the first quarter, the biotech division reported a pretax loss of $\$ 70,000$ and estimated a $\$ 270,000$ operating loss for the year. During the second quarter, the division experienced an operating loss of \$35,000 prior to the measurement date and $\$ 8,000$ in the remainder of that quarter. The anticipated loss on the disposal of that division's assets was \$40,000.

Futura had a flat $25 \%$ tax rate for $20 \times 1$. The firm is expecting a $\$ 5,000$ tax credit attributed to operations outside of the electronic division. Second-quarter pretax income for the nonelectronics operations was $\$ 40,000$. As of the end of the second quarter, annual pretax income of \$225,000 was anticipated for continuing operations.

## Required:

In good form, prepare a schedule showing the income (loss) and tax expense (benefit) determination for the first quarter, the restated first quarter, and the second quarter.

ANS :

| Quarter | Type of Income | Income (Loss) |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  |  | Current | Year to Date | Effective Tax Rate |
|  |  | Period |  |  |
| First | Continuing Operation | \$ 30,000 | \$ 30,000 | $19.44 \%^{\text {¹ }}$ |
| First, Restated | Continuing Operation | 100, 000 | 100, 000 | 23.61\% ${ }^{2}$ |
|  | Discontinued Operation | 70,000) | $(70,000)$ |  |
| Second | Continuing Operation | 40, 000 | 140,000 | $22.78 \%^{4}$ |
|  | Discontinued Operation | $(35,000)$ | $(105,000)$ | 25.00\% |
|  | Loss on Disposal | $(48,000){ }^{5}$ | $(48,000)$ | 25.00\% |
| Quarter | Type of Income | Tax Expense (Benefit) |  |  |
|  |  | Year | Previously | Current |
|  |  | to Date | Reported |  |
| First First, Restated | Continuing Operation | \$ 5,832 | 0 | \$ 5,832 |
|  | Continuing Operation | 23,610 | 0 | 23,610 |
|  | Discontinued Operation | $(17,778){ }^{3}$ | 0 | $(17,778)$ |
| Second | Continuing Operation | 31,892 | $\begin{gathered} 23,610 \\ (17,778) \end{gathered}$ | 8,282 |
|  | Discontinued Operation | $(26,250)$ |  | $(8,472)$ |
|  | Loss on Disposal | $(12,000)$ |  | $(12,000)$ |
| ${ }^{1} \$ 90,000 \times .25=\$ 22,500 ; \$ 22,500-\$ 5,000=19.44 \%$ |  |  |  |  |
| \$90,000 |  |  |  |  |
| ${ }^{2}(\$ 90,000+\$ 270,000) \times .25=\$ 90,000 ; \frac{\$ 90,000-\$ 5,000}{\$ 360,000}=23.61 \%$ |  |  |  |  |
|  |  |  |  |  |  |  |  |
| ${ }^{3} \$ 23,610-\$ 5,832=\$ 17,778$ |  |  |  |  |
| ${ }^{4}([\$ 225,000 \times .25]-\$ 5,000)=22.78 \%$ |  |  |  |  |
| \$225,000 |  |  |  |  |
| ${ }^{5}(\$ 40,000)$ estimated loss on disposal + (\$8,000) second-quarter operating loss subsequent to measurement date $=(\$ 48,000)$ |  |  |  |  |

DIF: D OBJ: 3, 4
15. Allee Co. has pretax, ordinary income of $\$ 7,000$ and $\$ 38,000$ in the first and second quarters, respectively. The projected ordinary income for the third and fourth quarters is $\$ 60,000$ and $\$ 30,000$. Occurring in the second quarter is a pretax, nonordinary loss of $\$ 50,000$ and pretax nonordinary income of $\$ 35,000$. The statutory tax rate is $15 \%$ on the first $\$ 50,000,22 \%$ on the next $\$ 50,000$, and $28 \%$ on income over $\$ 100,000$.

Required:
Determine the tax impact traceable to the nonordinary income and nonordinary loss.

ANS:
Tax benefit of nonordinary loss (\$24,100-\$38,100) = \$(14,000)
Tax expense of nonordinary income (\$(4,200) - \$(14,000)) = \$9,800

| Pretax Income | $\begin{aligned} & \text { Ordinary } \\ & \text { Income } \\ & \hline \$ 135,000 \end{aligned}$ | $\begin{aligned} & \text { Total } \\ & \text { Income } \end{aligned}$ | Total Income Excluding Non$\frac{\begin{array}{c}\text { ordinary } \\ \text { Losses }\end{array}}{\$ 170,000}$ |  | 1 Nondinary ms (net) |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Tax Expense (benefit) | A 28,300 | B 24,100 | C 38,100 | D | 4,200 |
| $\mathrm{A}=\$ 50,000 \times .15$ |  |  |  |  | \$ 7,500 |
| 50,000 x . 22 |  |  |  |  | 11,000 |
| 35,000 x . 28 |  |  |  |  | 9,800 |
| A. |  |  |  |  | \$28,300 |
| $B=\$ 50,000 \times .15$ |  |  |  |  | \$ 7,500 |
| 50,000 x . 22 |  |  |  |  | 11,000 |
| 20,000 x . 28 |  |  |  |  | 5,600 |
| B. |  |  |  |  | \$24,100 |
| $C=\$ 50,000 \times .15$ |  |  |  |  | \$ 7,500 |
| 50,000 x . 22 |  |  |  |  | 11, 000 |
| 70,000 x . 28 |  |  |  |  | 19,600 |
| C. |  |  |  |  | \$38,100 |

$D=$ Tax on all nonordinary items (net) (\$24,100-\$28,300) = \$(4,200)
Incremental tax expense (benefit) traceable to:
D All nonordinary items: (\$24,100-\$28,300) = (\$4,200) (Step 1: B - A)

E All nonordinary losses: (\$24,100-\$38,100) = (\$14,000) (Step 2: B - C)

F All nonordinary gains: $(\$ 4,200)-(\$ 14,000)=\$ 9,800$ (Step 3: D - E)

```
DIF: D
OBJ: 4
```

16. Consider the following:

Case A Income (loss) for quarters 1 through 4 is (\$50,000), \$30,000, \$40,000, and \$40,000, respectively. Future projected income for the year is uncertain at the end of quarters 1 and 2. Annual income at the end of quarter 3 is estimated to be $\$ 20,000$. No carryback benefit exists, and any future annual benefit is uncertain.

Case B Assume the same facts as in Case A. However, at the end of quarters 1 through 3, annual income is estimated to be \$40, 000 .

Case C Quarterly income (loss) levels were \$15,000, (\$35,000), ( $\$ 75,000$ ), and $\$ 25,000$. A yearly operating loss of $\$ 70,000$ was anticipated throughout the year. Prior years' income of $\$ 28,000$ is available for carryback. The same tax rates were relevant to the carryback period.

Required:
For cases A through C, complete the schedule that follows: Assume that the statutory tax rate is $15 \%$ on the first $\$ 50,000$ of income, $25 \%$ on the next $\$ 25,000$, and $30 \%$ on income in excess of $\$ 75,000$.

| Case | Quarter | Income(Loss) |  | Tax Rate | Tax Expense <br> (Benefit) |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Year |  | Year |  |
|  |  | Current | to Date |  | to Date | Current |
|  | 2 |  |  |  |  |  |
|  | 3 |  |  |  |  |  |
|  | 4 |  |  |  |  |  |

ANS :
Tax Expense

|  |  | Income(Loss) |  | Tax Rate | (Benefit) |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Year |  | Year |  |
| Case | Quarter | Current | to Date |  | to Date | Current |
| A | 1 | \$(50, 000) | \$(50, 000) | 0 | 0 | 0 |
|  | 2 | 30, 000 | ( 20,000 ) | 0 | 0 | 0 |
|  | 3 | 40, 000 | 20, 000 | 15\% | 3,000 | 3,000 |
|  | 4 | 40,000 | 60,000 | 16.7\% | 10,000 | 7,000 |
| B | 1 | $(50,000)$ | (50, 000) | 15\% | $(7,500)$ | $(7,500)$ |
|  | 2 | 30, 000 | (20, 000) | 15\% | (3, 000) | 4,500 |
|  | 3 | 40,000 | 20, 000 | 15\% | 3,000 | 6,000 |
|  | 4 | 40,000 | 60,000 | 16.7\% | 10,000 | 7,000 |
| C | 1 | 15,000 | 15,000 | 6\% ${ }^{\text {a }}$ | 900 | 900 |
|  | 2 | $(35,000)$ | (20, 000) | 6\% | $(1,200)$ | $(2,100)$ |
|  | 3 | (75, 000 ) | $(95,000)$ | b | $(4,200)$ | $(3,000)$ |
|  | 4 | 25,000 | (70, 000) | 6\% | $(4,200)$ | 0 |

${ }^{\text {a }}$ Effective rate $=\frac{\text { Tax benefit }}{\text { Anticipated loss }}=\frac{\$ 4,200}{\$ 70,000}=6 \%$
${ }^{\mathrm{b}}$ Because the YTD loss of $\$ 95,000$ is greater than the annual loss of $\$ 70,000$, the YTD tax benefit must be based on the YTD loss.

DIF: M OBJ: 3, 4
17. East Company, a highly diversified corporation, reports the results of operations quarterly. At the beginning of the third quarter, management decided to discontinue its recreational division. At this time, a formal plan was authorized, calling for disposal by year end. Results for the current year, excluding taxes, are as follows:

|  | Continuing | Discontinued |
| :---: | :---: | :---: |
| Quarter | Operations | Segment |
| First. | \$33,000 |  |
| Second | 40,200 |  |
| Third. | 62,000 | \$(6,500) |
| Fourth | 71,500 | 1,200 |

The following additional information was provided:
a. The first two quarters include results of operations of the discontinued segment. The segment reported first and second quarter pretax losses of $\$ 8,000$ and $\$ 12,000$, respectively.
b. The estimated annual income tax rate in the first and second quarters was $35 \%$. Because of the decision to discontinue, the revised annual effective tax rate was determined to be $40 \%$.

Required:
For each quarter, present the results of operations and the related tax expense or tax benefit. Where applicable, include the original and restated amounts in the presentation.

ANS:

| Quarter | Type of Income | Income (Loss) |  | Effective |
| :---: | :---: | :---: | :---: | :---: |
|  |  | Current | Year |  |
|  |  | Period | to Date | Tax Rate |
| First | Continuing Operation | \$ 33,000 | \$ 33,000 | 35\% |
| First-Restated | Continuing Operation | 41,000 | 41, 000 | 40\% |
|  | Discontinued Operation | (8, 000) | (8,000) | 40\% |
| Second | Continuing Operation | 40, 200 | 73,200 | 35\% |
| Second-Restated | Continuing Operation | 52,200 | 93,200 | 40\% |
|  | Discontinued Operation | $(12,000)$ | (20, 000) | 40\% |
| Third | Continuing Operation | 62,000 | 155,200 | 40\% |
|  | Discontinued Operation | $(6,500)$ | $(26,500)$ | 40\% |
| Fourth | Continuing Operation | 71,500 | 226,700 | 40\% |
|  | Discontinued Operation | 1,200 | $(25,300)$ | 40\% |



DIF: D OBJ: 3, 4
18. Adam Enterprise includes seven industry segments. Operating profits (losses) relating to those segments are:

| Segment | Operating Profit (Loss) |
| :---: | :---: |
| 1. | \$ 100,000 |
| 2 | 500, 000 |
| 3 | 400, 000 |
| 4 | (295, 000) |
| 5 | (600, 000) |
| 6 | (100, 000) |
| 7. | $(105,000)$ |

Required:
Based only on the above operating profit(loss) information, which of Adam's segments would be reported separately?

ANS:
Total segments reporting a profit:

| 1. | \$ 100,000 |
| :---: | :---: |
| 2. | 500, 000 |
| 3 | 400, 000 |
| Total | \$1,000,000 |

Total segments reporting a loss:

| 4 | $(295,000)$ |
| :---: | :---: |
| 5 | (600, 000) |
| 6 | (100, 000) |
| 7 | $(105,000)$ |
| Total | \$(1,100, 000) |

The greater absolute value is the total of the (loss) segments.
10\% x 1,100,000 = 110,000
Any segment reporting a profit exceeding $\$ 110,000$ or a loss exceeding ( $\$ 110,000$ ) would be reported.
Reportable segments: 2, 3, 4, 5

DIF: E OBJ: 6
19. Santas Corporation is a diversified firm with operations in the United States, Canada, Chile, Spain, and France, each of which qualifies as a geographic segment. Data with respect to those segments follows:


Required:
Determine which of the Santas segments would be reportable segments, and explain why.

ANS :

```
a. Revenue test:
    Operating profit test:
    $2,430 Unaffiliated sales
        310 Intersegment sales
    $2,740 Combined revenue
    x 10%
    $ 274 Revenue minimum
    ======
```

All segments exceed revenue minimum.
b.

| Segment | Profit | Loss |
| :---: | :---: | :---: |
| US | \$200 |  |
| Canada | 150 |  |
| Chile. | 240 |  |
| Spain. |  | \$ 30 |
| France |  | 110 |
|  | \$590 | \$140 |

Minimum profit or loss $=\$ 590 \times .1=\$ 59$
All segments except for Spain exceed the minimum profit or loss criterion.
c. Asset test:
\$1,120 x . 1 = \$112 minimum level
All segments except France meet minimum asset criterion.
d. $75 \%$ Test:

Segment Revenue-Unaffiliated
US .......................................... \$ 800
Canada....................................... 450
Chile......................................... 600
Spain............................................... 280
France............................................... $\quad \frac{300}{\$ 2,430}$
=====
75\% Total Corporate Revenue: . $75 \times 3,130=\$ 2,348$
Reportable segments are considered a significant portion of business

DIF: M OBJ: 6
20. Information about the seven segments of the Kenny Corporation is presented below. Determine which of the segments are reportable and why.

|  | Revenue from |  | General and Administrative | Total |
| :---: | :---: | :---: | :---: | :---: |
| Segment | All Sources | Cost of Sales | Expenses | Assets |
| 1 | \$17,450, 000 | \$15, 200, 000 | \$ 4,500,000 | \$ 55,000,000 |
| 2 | 25,200, 000 | 20, 000, 000 | 4, 000, 000 | 80, 000, 000 |
| 3 | 9,150, 000 | 7,000,000 | 1,500, 000 | 28,250,000 |
| 4 | 780,000 | 300, 000 | 100, 000 | 4,750,000 |
| 5 | 11,500, 000 | 8,900,000 | 4,250, 000 | 25,500, 000 |
| 6 | 6,800, 000 | 3,400, 000 | 2,000, 000 | 12,000, 000 |
| 7 | 2,100,000 | 1,000,000 | 900, 000 | 10,000,000 |
| Total | \$72,980, 000 | \$55,800, 000 | \$17, 250, 000 | \$215,500,000 |

ANS:
Revenue minimum: \$ 72,980,000 x 10\% = \$ 7,298,000
Asset minimum: \$215,500,000 x 10\% = \$21,550,000

|  | Operating |  | Passed Profit/Loss | Passed Revenue | Passed Asset |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Segment | Profit | Loss | Test? | Test? | Test? |
| 1 |  | \$2,250,000 | Yes | Yes | Yes |
| 2 | \$1,200, 000 |  | Yes | Yes | Yes |
| 3 | 650, 000 |  | Yes | Yes | Yes |
| 4 | 380, 000 |  | No | No | No |
| 5 | 1,650,000 |  | Yes | Yes | Yes |
| 6 | 1,400, 000 |  | Yes | No | No |
| 7 | 200,000 |  | No | No | No |
| Total | \$5,480,000 | \$3,900, 000 |  |  |  |
|  |  | $\times \quad 10 \%$ |  |  |  |
|  |  | \$ 548,000 |  |  |  |

Segments 1, 2, 3, 5, and 6 are the reportable segments.

```
DIF: M OBJ: 6
```

21. The management of Trident, Inc. is trying to determine if three of the company's nonreportable segments should be combined into one single segment for reporting purposes. In what five ways must these segments be similar in order to be reported as one?

ANS:

The three segments must be similar in each of the following areas:

1. The nature of the products and services
2. The nature of the production process
3. The type or class of customer for their products and services
4. The method used to distribute their products or provide their services
5. The nature of the regulatory environment, if any

DIF: E
OBJ: 5

## Chapter 13 - Partnerships: Characteristics, Formation, and Accounting for Activities

## MULTIPLE CHOICE

1. Which of the following is NOT a characteristic of the proprietary theory that influences accounting for partnerships?
a. Partners' salaries are viewed as a distribution of income rather than a component of net income.
b. A partnership is not viewed as a separate, distinct, taxable entity.
c. A partnership is characterized by limited liability.
d. Changes in the ownership structure of a partnership result in the dissolution of the partnership.

ANS: C DIF: M OBJ: 1
2. Don and Key form a partnership. Don contributes into the partnership a personal computer that he has used at home in nonbusiness related activities. Don had paid $\$ 10,000$ for the computer 2 years ago. The current market value of the computer is $\$ 9,000$. The partners, after reviewing IRS rules, assigned the computer a useful life of 5 years. For financial reporting purposes, at what amount should the computer be recorded in the partnership ledger?
a. \$10, 000
b. \$9,000
c. $\$ 7,500$
d. \$6,000

ANS: B
DIF: M
OBJ: 5
3. Which of the following would be least likely to be used as a means of allocating profits among partners who are active in the management of the partnership?
a. Salaries
b. Bonus as a percentage of net income before the bonus
c. Bonus as a percentage of sales in excess of a targeted amount
d. Interest on average capital balances

ANS: D DIF: E OBJ: 4
4. Which of the following best describes the use of interest on invested capital as a means of allocating profits?
a. If interest on invested capital is used, it must be used for all partners.
b. Interest is allocated only if there is partnership net profit.
c. Invested capital balances are never affected by drawings of the partnerships.
d. Use of beginning or ending measures of invested capital may be subject to manipulation that distorts the measure of invested capital.

ANS: D
DIF: E
OBJ: 4
5. A partnership agreement calls for allocation of profits and losses by salary allocations, a bonus allocation, interest on capital, with any remainder to be allocated by preset ratios. If a partnership has a loss to allocate, generally which of the following procedures would be applied?
a. Any loss would be allocated equally to all partners.
b. Any salary allocation criteria would not be used.
c. The bonus criteria would not be used.
d. The loss would be allocated using the profit and loss ratios, only.

ANS: C
DIF: M
OBJ: 4
6. Ace \& Barnes partnership has income of $\$ 110,000$ and Partner $A$ is to be allocated a bonus of $10 \%$ of income after the bonus, Partner A's bonus would be $\qquad$ _.
a. \$11, 000
b. \$10,000
c. $\$ 9,091$
d. \$9,000

ANS: B DIF: M OBJ: 4
7. Partner A first contributed $\$ 20,000$ of capital into an existing partnership on February 1, 20X1. On June 1, 20X1, the partner contributed another \$20,000. On September 1, 20X1, the partner withdrew $\$ 15,000$ from the partnership. Withdrawals in excess of \$5,000 are charged to the partner's capital account. The partnership's fiscal year end is December 31. The annual weighted-average capital balance is
a. \$25,000
b. \$26,667
c. $\$ 28,334$
d. \$30, 000

ANS: A DIF: M OBJ: 3,4
8. Partner Alta had a capital balance on January 1, $20 \times 5$ of $\$ 45,000$ and made additional capital contributions during 20X5 totaling \$50,000. During the year 20X5, Alta withdrew $\$ 8,000$ per month. Alta's postclosing capital balance on December 31, $20 \times 5$ is $\$ 30,000$. Alta's share of 20X5 partnership income is $\qquad$ .
a. \$96,000
b. \$50, 000
c. $\$ 31,000$
d. \$8,000

ANS: C
DIF: M
OBJ: 3,4
9. Partners $A$ and $B$ have a profit and loss agreement with the following provisions: salaries of $\$ 20,000$ and $\$ 25,000$ for $A$ and $B$, respectively; a bonus to $A$ of $10 \%$ of net income after bonus; and interest of $20 \%$ on average capital balances of $\$ 40,000$ and $\$ 50,000$ for $A$ and $B$, respectively. Any remainder is split equally. If the partnership had net income of $\$ 88,000$, how much should be allocated to Partner A?
a. \$36, 000
b. $\$ 44,500$
c. $\$ 50,000$
d. \$43,500

ANS: B DIF: M OBJ: 4
10. Partners $A$ and $B$ have a profit and loss agreement with the following provisions: salaries of $\$ 30,000$ and $\$ 45,000$ for $A$ and $B$, respectively; a bonus to $A$ of $12 \%$ of net income after salaries and bonus; and interest of $10 \%$ on average capital balances of $\$ 50,000$ and $\$ 65,000$ for $A$ and $B$, respectively. One-fourth of any remaining profits are allocated to $A$ and the balance to $B$. If the partnership had net income of $\$ 108,600$, how much should be allocated to Partner A?
a. \$43, 225
b. $\$ 43,816$
c. $\$ 47,850$
d. $\$ 65,375$

ANS: A DIF: M OBJ: 4
11. Partners $A$ and $B$ have a profit and loss agreement with the following provisions: salaries of $\$ 40,000$ and $\$ 45,000$ for $A$ and $B$, respectively; a bonus to A of $10 \%$ of net income after salaries and bonus; and interest of $15 \%$ on average capital balances of $\$ 40,000$ and $\$ 60,000$ for $A$ and $B$, respectively. One-third of any remaining profits or losses are allocated to $B$ and the balance to $A$. If the partnership had net income of $\$ 52,000$, how much should be allocated to Partner A?
a. \$14,000
b. \$30,000
c. $\$ 38,000$
d. None of the above
ANS: B
DIF: M
OBJ: 4
12. Partners Acker, Becker \& Checker have the following profit and loss agreement:
(1) Acker \& Becker receive salaries of \$40,000 each
(2) Checker gets a bonus of 10 percent of net income after salaries and bonus (the bonus is zero if salaries exhaust net income)
(3) Remaining profits are shared by Acker, Becker \& Checker in the following ratios respectively: 3:4:3

The partnership had a net income of $\$ 91,000$. How much should be allocated to Checker?
a. \$3,300
b. \$10,300
c. \$1,000
d. $\$ 4,000$

ANS: D
DIF: D
OBJ: 4
13. Partners $A$ and $B$ have a profit and loss agreement with the following provisions: salaries of $\$ 41,600$ and $\$ 38,400$ for $A$ and $B$, respectively; a bonus to $A$ of $10 \%$ of net income after salaries and bonus; and interest of $10 \%$ on average capital balances of $\$ 20,000$ and $\$ 35,000$ for $A$ and $B$, respectively. One-third of any remaining profits are allocated to $A$ and the balance to $B$. If the partnership had a net income of \$36,000, how much should be allocated to Partner A, assuming that the provisions of the profit and loss agreement are ranked by order of priority starting with salaries?
a. \$12,000
b . \$18,000
c. \$18,720
d. \$41,600

ANS: C DIF: D OBJ: 4
14. Partners Tuba and Drum share profits and losses of their partnership equally after 1) annual salary allowances of \$25,000 for Tuba and $\$ 20,000$ for Drum and 2) $10 \%$ interest is provided on average capital balances. During 20X1, the partnership had earnings of \$50,000; Tuba's average capital balance was $\$ 60,000$ and Drum's average capital balance was \$90,000.

How should the $\$ 50,000$ of earnings be divided?
a.

Drum
\$24,000
b. \$27,000
\$23, 000
c. $\$ 25,000$
\$25, 000
d. \$27,500
\$22,500

ANS: A
DIF: M
OBJ: 4
15. Assuming the same facts as in Question \#14, what would be the correct answer if an order of priority was in the partnership agreement whereby salary allowances have a higher priority than interest on capital allocations?

|  | Tuba | Drum |
| :---: | :---: | :---: |
| a. | $\$ 26,000$ | $\$ 24,000$ |
| b. | $\$ 27,000$ | $\$ 23,000$ |
| c. | $\$ 25,000$ | $\$ 25,000$ |
| d. | $\$ 27,500$ | $\$ 22,500$ |

ANS: B DIF: M OBJ: 4
16. Which of the following statements is true concerning the treatment of salaries in partnership accounting?
a. Partner salaries may be used to allocate profits and losses; they are not considered expenses of the partnership
b. Partner salaries are equal to the annual partner draw.
c. The salary of a partner is treated in the same manner as salaries of corporate employees.
d. Partner salaries are directly closed to the capital account.

ANS: A DIF: E OBJ: 3
17. Partners active in a partnership business should have their share of partnership profits based on the following
a. a combination of salaries plus interest based on average capital balances.
b. a combination of salaries and percentage of net income after salaries and any other allocation basis.
c. salaries only.
d. percentage of net income after salaries is paid to inactive partners.

ANS: B DIF: E OBJ: 4
18. Which of the following statements are true when comparing corporations and partnerships?
a. Partnership entities provide for taxes at the same rates used by corporations.
b. In theory, partnerships are more able to attract capital.
c. Like corporations, partnerships have an infinite life.
d. Unlike shareholders, general partners may have liability beyond their capital balances.

ANS: D
DIF: M
OBJ: 1
19. Partnership drawings are
a. always maintained in a separate account from the partner's capital account.
b. equal to partners' salaries.
c. usually maintained in a separate draw account with any excess draws being debited directly to the capital account.
d. not discussed in the specific contract provisions of the partnership.

ANS: C DIF: E OBJ: 3
20. Maxwell is trying to decide whether to accept a salary of $\$ 60,000$ or a salary of $\$ 25,000$ plus a bonus of $20 \%$ of net income after the bonus as a means of allocating profit among the partners. What amount of income would be necessary so that Maxwell would consider the choices to be equal?
a. \$35,000
b. $\$ 85,000$
c. \$140, 000
d. \$210, 000

ANS: D DIF: D OBJ: 4
21. Maxwell is trying to decide whether to accept a salary of $\$ 60,000$ or a salary of $\$ 25,000$ plus a bonus of $20 \%$ of net income after salaries and bonus as a means of allocating profit among the partners. Salaries traceable to the other partners are estimated to be $\$ 75,000$. What amount of income would be necessary so that Maxwell would consider the choices to be equal?
a. \$175,000
b. \$210, 000
c. \$285,000
d. \$310, 000

ANS: D DIF: D OBJ: 4
22. Maxwell is a partner and has an annual salary of $\$ 30,000$ per year, but he actually draws $\$ 3,000$ per month. The other partner in the partnership has an annual salary of $\$ 40,000$ and draws $\$ 4,000$ per month. What is the total annual salary that should be used to allocate annual net income among the partners?
a. \$14,000
b. \$50,000
c. \$70,000
d. \$84,000

ANS: C
DIF: D
OBJ: 4
23. A partnership has the following accounting amounts:
(1) Sales $=\$ 70,000$
(2) Cost of Goods Sold = \$40,000
(3) Operating Expenses $=\$ 10,000$
(4) Salary allocations to partners $=\$ 13,000$
(5) Interest paid to banks $=\$ 2,000$
(6) Partners' withdrawals = \$8,000

Partnership net income (loss) is $\qquad$ .
a. \$20,000
b. \$18,000
c. $\$ 5,000$
d. $\$(3,000)$

ANS: B
DIF: E
OBJ: 1
24. Which of the following characteristics of a partnership most likely explains why a public accounting firm is organized as a partnership from a public policy viewpoint?
a. A partnership is not a taxable entity.
b. A partnership is characterized by unlimited liability.
c. A partnership is characterized by a fiduciary relationship among the partners.
d. Salaries to the partners are not considered a component of net income.

ANS: B
DIF: M
OBJ: 1
25. For financial accounting purposes, assets of an individual partner contributed to a partnership are recorded by the partnership at
a. historical cost.
b. book value.
c. fair market value.
d. lower of cost or market.

ANS: C DIF: E OBJ: 5
26. Which of the following is not an advantage of a partnership over a corporation?
a. Ease of formation
b. Unlimited liability
c. The elimination of taxes at the entity level
d. All of the above

ANS: B DIF: E OBJ: 1
27. Under the entity theory, a partnership is
a. viewed through the eyes of the partners.
b. viewed as having its own existence apart from the partners.
c. a separate legal and tax entity.
d. unable to enter into contracts in its own name.

ANS: B
DIF: M
OBJ: 1
28. Of the following components used to allocate profits among partners, which is less likely to be found in a partnership of landscape
architects?
a. Salaries
b. Bonuses
c. Interest on invested capital
d. Profit and loss percentages

ANS: C
DIF: E
OBJ: 4
29. Della Reise was admitted to a partnership. She contributed $\$ 25,000$ cash plus equipment she purchased for $\$ 50,000$ and which had accumulated depreciation for tax purposes of $\$ 20,000$. The fair value of the equipment was $\$ 35,000$. She also assumed $1 / 3$ of partnership debt of \$15, 000. Her beginning capital balance was $\$ 48,000$. For tax purposes her partnership interest should be initially valued at
a. \$60, 000
b. \$48,000
c. \$55,000
d. \$65,000

ANS: A
Cash of $\$ 25,000+X ' s ~ t a x ~ b a s i s ~ o f ~ e q u i p ~ \$ 30,000 ~+~ L i a b i l i t y ~ a s s u m e d ~$ \$5,000 = \$60,000

DIF: D OBJ: 5
30. Which of the following does not decrease a partner's tax basis in a partnership?
a. The basis of other partners' liabilities assumed by the partnership
b. The basis of that partner's liabilities assumed by the partnership
c. Distributions to the individual partner
d. The partner's share of taxable losses

ANS: A
DIF: M
OBJ: 5
31. For tax purposes, assets of an individual partner that are contributed to a partnership are recorded by the partnership at
a. historical cost.
b. fair market value.
c. the individual partner's tax basis.
d. book value.

ANS: C
DIF: E
OBJ: 5
32. The disadvantages of double taxation for an entity with two owners may not be avoided if the entity is
a. organized as a partnership.
b. organized as a Subchapter S corporation.
c. distributing all of its income in the form of dividends.
d. None of the above.

ANS: C
DIF: E
OBJ: 6

## PROBLEM

1. Carey and Drew formed a partnership on January 1, 20X1. Carey invested \$100,000, Drew \$70,000. Each withdrew \$12,000 on each of the following dates during 20X1: February 1, August 1, and November 1. These withdrawals in total were equal to salaries for the year. Interest of 8 percent was to be paid partners on the basis of their average capital balances excluding net income. Additionally, Carey was to get a 20 percent bonus based on partnership net income after the bonus, but before the salaries and interest.

Any remaining profit (or loss) was to be allocated equally among the partners.

Required:
If partnership net income was $\$ 150,000$, how was it to be allocated between Carey and Drew?

Order of allocation: bonus, salaries, interest. Round to the nearest whole dollar.

## ANS:

Unallocated

|  | Total | Carey | Drew |
| :---: | :---: | :---: | :---: |
| Total to allocate: | \$150,000 |  |  |
| As Bonus (Note A below) | $(25,000)$ | \$25, 000 |  |
| As Salaries | $(72,000)$ | 36,000 | \$36,000 |
| As Interest (Note B below) | $(10,720)$ | 6,560 | 4,160 |
| Subtotal: | \$ 42,280 | \$67,560 | \$40,160 |
| Residual Profit-sharing | $(42,280)$ | 21,140 | 21,140 |
| Final Allocations | \$ 0 | \$88,700 | \$61,300 |

Note A (Bonus):

$$
\begin{aligned}
& \text { Bonus }=.20(\text { Net Income }- \text { Bonus }) \\
& 1.2(\text { Bonus })=.20(\$ 150,000)=30,000 \\
& \text { Bonus }=30,000 / 1.2=
\end{aligned}
$$

Note B (Interest): Carey:

| Capital | Fraction of Year | Interest |  |
| :---: | :---: | :---: | :---: |
|  |  |  | btotal |
| $\begin{array}{r} \$ 100,000 \\ (12,000) \end{array}$ | 1/12 | 0.08 | \$ 667 |
| 88,000 | 6/12 | 0.08 | 3,520 |
| $(12,000)$ |  |  |  |
| 76,000 | 3/12 | 0.08 | 1,520 |
| $(12,000)$ |  |  |  |
| \$ 64,000 | 2/12 | 0.08 | 853 |
| ======= | 1.0000 |  | \$6,560 |

Drew:

| Capital <br> Amount | Fraction of Year | Interest Rate | = Subtotal |
| :---: | :---: | :---: | :---: |
| \$ 70,000 | 1/12 | 0.08 | \$ 467 |
| $(12,000)$ |  |  |  |
| 58,000 | 6/12 | 0.08 | 2,320 |
| $(12,000)$ |  |  |  |
| 46,000 | 3/12 | 0.08 | 920 |
| $(12,000)$ |  |  |  |
| \$ 34,000 | 2/12 | 0.08 | 453 |
| ======= | 1.0000 |  | \$4,160 |
|  | ====== |  | ====== |

DIF: M
OBJ: 4
2. Matt and Jeff organized their partnership on $1 / 1 / 00$. The following entries were made into their capital accounts during 00:

|  | Debit | Credit | Balance |
| :--- | ---: | ---: | ---: |
| Matt: |  |  |  |
| $1 / 1$ |  | 35,000 | 35,000 |
| $6 / 1$ |  | 10,000 | 45,000 |
| $10 / 1$ |  |  | 50,000 |
| Jeff: |  |  |  |
| $1 / 1$ |  | 25,000 |  |
| $3 / 1$ | 10,000 | 10,000 | 25,000 |
| $9 / 1$ | 5,000 |  | 35,000 |
| $11 / 1$ |  | 8,000 | 25,000 |
| $12 / 1$ |  | 28,000 |  |
|  |  |  |  |

If partnership profits for the year equaled $\$ 66,000$, indicate the allocations between the partners under the following independent profit-sharing allocation conditions:
a. Interest of $10 \%$ is allocated on weighted average capital balance and the remainder is divided equally
b. A salary of $\$ 9,000$ will be allocated to Jeff; $10 \%$ interest on ending capital is allocated to the partners; remainder is divided 60/40 to Matt and Jeff, respectively
c. Salaries are allocated to Matt and Jeff in the amount of \$10,000 and \$15,000, respectively and the remainder is allocated in proportion to weighted average capital balances
d. A bonus of $10 \%$ of partnership profits after bonus is credited to Matt, a salary of $\$ 35,000$ is allocated to Jeff, a $\$ 20,000$ salary is allocated to Matt, $10 \%$ interest on weighted capital is allocated, and remainder is split equally

ANS:
Weighted Average Capital Calculation:
Matt:

|  | Cap Bal | \# months | Gross Cap |
| :---: | :---: | :---: | :---: |
| 1/1 to 6/1 | 35,000 | 5 | 175,000 |
| $6 / 1$ to 10/1 | 45, 000 | 4 | 180, 000 |
| 10/1 to 12/31 | 50,000 | 3 | 150,000 |
|  |  | Total | 505,000 |
|  |  | Average | 42,083 |
| Jeff: |  |  |  |
|  | Cap Bal | \# months | Gross Cap |
| 1/1 to 3/1 | 25,000 | 2 | 50,000 |
| $3 / 1$ to 9/1 | 35,000 | 6 | 210, 000 |
| 9/1 to 11/1 | 25,000 | 2 | 50,000 |
| 11/1 to 12/1 | 20,000 | 1 | 20,000 |
| 12/1 to $12 / 31$ | 28,000 | 1 | 28,000 |
|  |  | Total | 358, 000 |
|  |  | Average | 29,833 |


| a. |  | Matt | Jeff | Total |
| :---: | :---: | :---: | :---: | :---: |
|  | Salary | \$ N/A | \$ N/A | \$ 0 |
|  | Bonus | N/A | N/A | 0 |
|  | Interest | 4,208 | 2,983 | 7,191 |
|  | Subtotal | \$ 4,208 | \$ 2,983 | \$ 7,191 |
|  | Remainder | 29,404 | 29,405 | 58,809 |
|  | Total | \$33,612 | \$32,388 | \$66,000 |
| b. |  | Matt | Jeff | Total |
|  | Salary | \$ 0 | \$ 9,000 | \$ 9,000 |
|  | Bonus | N/A | N/A | 0 |
|  | Interest | 5,000 | 2,800 | 7,800 |
|  | Subtotal | \$ 5,000 | \$11,800 | \$16,800 |
|  | Remainder | 29,520 | 19,680 | 49,200 |
|  | Total | \$34,520 | \$31,480 | \$66,000 |
| c. |  | Matt | Jeff | Total |
|  | Salary | \$10,000 | \$15,000 | \$25,000 |
|  | Bonus | N/A | N/A | 0 |
|  | Interest | N/A | N/A | 0 |
|  | Subtotal | \$10,000 | \$15,000 | \$25,000 |
|  | Remainder | 23,992 | 17,008 | 41,000 |
|  | Total | \$33,992 | \$32, 008 | \$66,000 |
| d. |  | Matt | Jeff | Total |
|  | Salary | \$20,000 | \$35,000 | \$55,000 |
|  | Bonus* | 6,000 | N/A | 6,000 |
|  | Interest | 4,208 | 2,983 | 7,191 |
|  | Subtotal | \$30,208 | \$37,983 | \$68,191 |
|  | Remainder | (1,096) | (1, 095 ) | $(2,191)$ |
|  | Total | \$29,112 | \$36,888 | \$66,000 |

DIF: M
OBJ: 4
3. Olsen and Katch organized the OK Partnership on $1 / 1 / 01$. The following entries were made into their capital accounts during 01:

Olsen:
1/1
4/1
Debits
Credits
20,000 5,000
10/1
5, 000
Katch:
1/1
40, 000
3/1
10, 000
10,000
11/1
10,000
The partnership agreement called for the following in the allocation of partnership profits and losses:

Salaries of $\$ 48,000$ and $\$ 36,000$ would be allocated to Olsen and Katch, respectively

Interest of $8 \%$ on average capital balances will be allocated
Katch will receive a bonus of $10 \%$ on all partnership billings in excess of \$300,000

Any remaining profits/losses will be allocated 60/40 to Olsen and Katch, respectively.

Required (account for each situation independently):
a. Determine the distribution of partnership net income. Assume the following priority of allocation: interest, bonus, salaries, then remaining assuming partnership income of \$85,000; partnership billings amounted to \$400,000
b. Determine the distribution of partnership net income of $\$ 165,000$ on billings of $\$ 400,000$. No specific priority is given to any of the allocation criteria.

ANS:
a.

Available

| Olsen | Katch | Total | Remainder |
| :---: | :---: | :---: | :---: |
|  |  |  | 85,000 |
| \$ 2,000 | \$ 2,400 | \$ 4,400 | 80,600 |
|  | 10,000 | 10,000 | 70,600 |
| 40,343 | 30,257 | 70,600 | 0 |
| \$42,343 | \$42,657 | \$85,000 |  |

Weighted Average Calculation:
Olsen:

|  | Capital <br> Balance | $\#$ of Months |
| :--- | :--- | :--- | :--- | :--- | | Gross |
| :---: |
| Capital |

Katch:

1/1 to 3/1
3/1 to 9/1
9/1 to $11 / 1$
11/1 to 12/31

| Capital |  | Gross |
| :---: | :---: | :---: |
| Balance | \# of Months | Capital |
| 40, 000 | 2 | 80,000 |
| 30, 000 | 6 | 180, 000 |
| 20,000 | 2 | 40,000 |
| 30,000 | 2 | 60,000 |
|  |  | 360,000 |
|  |  | 30, 000 |

$\$ 70,600$ is not sufficient to cover entire salary allocation. It is split between Olsen and Katch based on proportionate salaries:

$$
\begin{array}{ll}
\text { Olsen } & 48,000 / 84,000 \times 70,600=40,343 \\
\text { Katch } 36,000 / 84,000 \times 70,600=30,257
\end{array}
$$

b.

Salaries

| Olsen |
| ---: |
| $\$ 48,000$ |
| 2,000 |
| 50,000 |
| 39,960 |
| $\$ 89,960$ |
| $=====$ |


| Katch |
| ---: |
| $\$ 36,000$ |
| 10,000 |
| 2,400 |
| 48,400 |
| 26,640 |
| $\$ 75,040$ |
| $======$ |

Total
\$84,000
10,000
Bonus
Interest*
Subtotals:
Remainder
Final Profit:
=======

48,400
66,600
\$165,000
========
*see part 'a' solution for weighted average capital calculation

DIF: D
OBJ: 4
4. Cable and Jones are considering forming a partnership whereby profits will be allocated through the use of salaries and bonuses. Bonuses will be 10\% of net income after total salaries and total bonuses. Cable will receive a salary of $\$ 30,000$ and a $10 \%$ bonus. Jones has the option of receiving a salary of $\$ 40,000$ and a $10 \%$ bonus or simply receiving a salary of \$52,000.

Required:
Determine the level of income that would be necessary so that Jones would be indifferent to the profit-sharing option selected.

ANS:
Jones would have to receive a bonus of $\$ 12,000$ to be indifferent to the two profit-sharing options. Since Cable would receive the same bonus, the total bonus would have to be $\$ 24,000$. Therefore,

```
$24,000 = 10% x (Net income - Salaries - Bonuses)
$24,000 = 10% x (Net income - [30,000 + 40,000] - 24,000)
$24,000 = 10% x (Net income - 94,000)
$24,000 = 10% x Net income - 9,400
$33,400 = 10% x Net income
Net income = $334,000
```

DIF: E OBJ: 4
5. Tupper and Tolin have decided to form a partnership to provide environmental testing services to industry. The individuals will share profits equally and have conveyed the following assets and liabilities to the partnership:

|  | Tupper | Tolin |
| :---: | :---: | :---: |
| Cash. | \$20,000 |  |
| Equipment: |  |  |
| Tax basis | 10,000 | \$40, 000 |
| Book basis | 12,000 | 34, 000 |
| Vehicles: |  |  |
| Tax basis |  | 0 |
| Book basis |  | 6,000 |
| Liabilities | 8,000 | 20,000 |

## Required:

Calculate the tax basis and the book basis of each partner in the partnership.

ANS:

|  | Tupper's Basis |  | Tolin's Basis |  |
| :---: | :---: | :---: | :---: | :---: |
|  | Tax | Book | Tax | Book |
| Cash. | \$20,000 | \$20,000 |  |  |
| Equipment | 10,000 | 12,000 | \$ 40,000 | \$ 34,000 |
| Vehicles. |  |  | 0 | 6,000 |
| Liabilities: |  |  |  |  |
| Total. |  | $(8,000)$ |  | $(20,000)$ |
| Other partner's assumed. <br> Assumed by other partner | $10,000$ |  | $\begin{gathered} 4,000 \end{gathered}$ |  |
| Basis of partner's |  |  |  |  |
| interest | \$36,000 | \$24,000 | \$ 34,000 | \$ 20,000 |

DIF: M OBJ: 4, 5
6. Van and Shapiro formed a partnership. After one year of operation, the partnership had the following partial trial balance:


Required:
Calculate the two partners' ending capital balances:
a. for book purposes
b. for tax purposes

ANS:

| Allocation of Net Income | Total | Van | Shapiro |
| :---: | :---: | :---: | :---: |
|  | $\begin{array}{r} \$ 300,000 \\ (100,000) \end{array}$ |  |  |
|  | $(36,000)$ |  |  |
|  | $(28,000)$ |  |  |
|  | $(15,000)$ |  |  |
|  | \$ 121,000 |  |  |
| Allocation of Salary: | (30,000) | \$30,000 |  |
| Subtotal: | \$ 91,000 | \$30,000 | \$ 0 |
| Sharing of Remainder: | $(91,000)$ | 36,400 | 54,600 |
| Allocation of Net Income: | \$ 0 | \$66,400 | \$54,600 |
|  |  |  |  |
| Partners' Capital | Total | Van | Shapiro |
| Capital, Beginning. | \$165,000 | \$ 70,000 | \$ 95,000 |
| Net Income. | 121,000 | 66,400 | 54,600 |
| Less: Withdrawals | $(29,000)$ | $(15,000)$ | $(14,000)$ |
| Capital, Ending (for book purposes) | \$257,000 | \$121,400 | \$135,600 |
| Tax Adjustments: |  |  |  |
| Van (\$40,000 book value |  |  |  |
| less \$24,000 tax basis) | $(16,000)$ | $(16,000)$ |  |
| Shapiro (\$10,000 of personal |  |  |  |
| liability assumed) : ..... | $(10,000)$ |  | $(10,000)$ |
| Capital, Ending (for tax purposes) | \$231,000 | \$105,400 | $\$ 125,600$ |

DIF: D OBJ: 3, 5
7. The Amato, Bergin, Chelsey partnership profit allocation agreement calls for salaries of $\$ 15,000$ and $\$ 30,000$ for Anato \& Bergin, respectively. Amato is also to receive a bonus equal to $10 \%$ of partnership income after her bonus. Interest at the rate of $10 \%$ is to be allocated to Chelsey based on his weighted average capital after draws. Chelsey began the current year with a capital balance of $\$ 54,000$ and had the following subsequent activity:

March 1: Withdraw \$20,000
July 1: Withdraw \$10,000
September 1: Contributed \$ 5,000
October 1: Contributed \$12,000

Required:
Assuming the partnership has income of \$66,000, determine the amounts to be allocated to each partner.

ANS:


$$
\begin{aligned}
& \text { Bonus }=10 \% \times(66,000-\text { Bonus }) \\
& \text { Bonus }=6,000
\end{aligned} \quad \begin{aligned}
\text { Interest }= & (([\$ 54,000 \times 2 \text { months }] \\
& +[\$ 34,000 \times 4 \text { months }] \\
& +[\$ 24,000 \times 2 \text { month }] \\
& +[\$ 29,000 \times 1 \text { month }] \\
& +[\$ 41,000 \times 3 \text { months }]) \\
& \quad \div 12 \text { months }) \times 10 \%
\end{aligned}
$$

DIF: E OBJ: 7
8. Turner, Ike, and Gibson formed a partnership in $20 X 2$ that provided for each member to receive a salary of $\$ 20,000$. Gibson was to receive a bonus of $10 \%$ of partnership income after the bonus. Interest on ending capital balances of $10 \%$ was also used as a component for allocating profits to Turner and Gibson. Any remaining profits/losses were to be allocated 30\%, 30\%, and $40 \%$ for Turner, like, and Gibson, respectively. In early 20X3, it was discovered that the $20 X 2$ income of $\$ 54,000$ was overstated by $\$ 22,000$. Turner and Gibson suggest that the error be offset against the $20 \times 3$ income. Ike argued that they are being harmed by this decision. Discuss the merits of Ike's position.

ANS:
The error would have no effect on the amount of salaries allocated to the partners. However, Gibson's bonus in $20 \times 2$ is overstated by $\$ 2,000$. (Bonus error $=10 \% /[\$ 22,000$ error - bonus error]). As a result of this overstatement, the deficit (resulting form the allocation of salaries, bonus, and interest) is overstated and Turner and Ike must absorb this share of this overstatement. Gibson, however, receives \$2,000 more than she should and absorbs only $\$ 800$ ( $\$ 2,000 \times 40 \%$ ) of the resulting deficit. The failure to correct the error in 20X2 will also unfairly affect the interest on capital for 20X3. Although the error has no effect on the 20X2 capital balances used, these balances are in total overstated by $\$ 22,000$ at the end of $20 \times 3$. The decision to offset the error against $20 \times 3$ income versus beginning $20 \times 3$ capital balances will result in allocating an overstated amount of interest to Turner and Gibson in 20X3. Finally, to the extent that drawings may be related to capital balances, a time value of money factor must be considered.

DIF: E
OBJ: 4

## ESSAY

1. Barnes and Noble, both lawyers, have decided to form a partnership. They have asked your advice on how the profits and losses should be divided and have provided you with the following information:

Initial Capital Contribution:
Barnes.......... . . . . . . . . . . . . . . . . . . $\$ 20,000$
Noble.... . . . . . . . . . . . . . . . . . . . . . . . . . \$80, 000
Time Devoted to Business Operations:
Barnes.......... . . . . . . . . . . . . . . . . . . 75\%
Noble. . . . . . . . . . . . . . . . . . . . . . . . . . . . . 100\%

Personal facts:
Barnes has an excellent reputation in the community and is very well known. Substantially all new client will come from her efforts.

Noble has a very strong technical and operational background, and is an excellent supervisor of staff lawyers who are expected to do more of the legal research and initial preparation of legal documentation.

Required:
How would you advise the partners to share in profits and losses?

ANS:
There are several aspects of this new partnership which will guide how the profit and loss allocation should be set up. Since the partners have such diverse contributions to the partnership, a strict or equal percentage would probably not be in the best interests of either partner as an allocation method. Since both partners are contributing a considerable amount of their time to the partnership, there is sufficient reason to allocate a portion of profits using a salary allocation. In a law firm, the allocation could be a flat amount based on estimated value of time spent, or it could be dependent upon billable hours. Since Noble is probably going to spend more time on administrative functions, versus billable functions, a straight salary might be more logical. In addition, since Barnes' main purpose is to bring in the clients, some sort of bonus to Barnes would seem appropriate, corresponding to new client revenue or hours. Finally, due to the disparity in contributed capital, it would probably be advisable for there to be some sort of interest on capital allocation to provide a return on Noble's significant investment into the partnership.

DIF: M OBJ: 1, 2

## Chapter 14 - Partnerships: Ownership Changes and Liquidations

## MULTIPLE CHOICE

1. Which of the following results in dissolution of a partnership?
a. contribution of additional assets to the partnership by an existing partner
b. receipt of a draw by an existing partner
c. winding up of the partnership and the distribution of remaining assets to the partners
d. withdrawal of a partner from a partnership

ANS: D
DIF: E
OBJ: 1
2. Changes in partnership ownership are presumed to be arm's length transactions that may require which of the following actions?
a. recognitions of goodwill to existing partners
b. revaluation of existing partnership assets
c. recognition of goodwill or other intangible assets attributable to the incoming partner
d. all of the above are possible

ANS: D
DIF: M
OBJ: 1
3. The admission of a new partner under the bonus method will result in a bonus to
a. the old partners only.
b. the new partner only.
c. either the new partner or the old partners, but not both.
d. none of the above.

ANS: C
DIF: E
OBJ: 2
4. When a new partner is admitted to a partnership under the goodwill method, an original partner's capital account may be adjusted for
a. a proportionate share of the incoming partner's investment.
b. his or her share of previously unrecorded intangible assets traceable to the original partners.
c. his or her share of previously unrecorded intangible assets traceable to the incoming partner.
d. none of the above.

ANS: B
DIF: M
OBJ: 1
5. Under the bonus method, when a new partner is admitted to the partnership, the total capital of the new partnership is equal to:
a. the book value of the previous partnership + the fair market value of the consideration paid to the existing partnership by the incoming partner
b. the book value of the previous partnership + any necessary asset write ups from book value to market value + the fair market value of the consideration paid to the existing partnership by the incoming partner
c. the book value of the previous partnership - any asset write downs from book to market value + the fair market value of the consideration paid to the existing partnership by the incoming partner
d. the fair market value of the new partnership as implied by the value of the incoming partner's consideration in exchange for an ownership percentage in the new partnership

ANS: C DIF: M OBJ: 2
6. If a bonus is traceable to the previous partners rather than an incoming partner, it is allocated among the partners according to the
a. profit-sharing percentages of the previous partnership.
b. profit-sharing percentages of the new partnership.
c. capital percentages of the previous partners.
d. capital percentages of the new partnership.

ANS: A DIF: E OBJ: 2
7. Which of the following characterizes the bonus method, compared to the goodwill method, when unrecorded intangibles are traceable to the previous partners?
a. The intangibles are actually recorded.
b. The legal significance of a change in ownership structure of the partnership is emphasized.
c. This method generally produces more equitable results if the former partners do not share profits and losses in the same relationship to each other as they did before a new partner was admitted.
d. The market value concept rather than the historical cost concept is emphasized.

ANS: C
DIF: M
OBJ: 4
8. The fair market value of a partnership can be implied by
a. adding the incoming partner's market value of consideration to the book value of the existing partnership.
b. the tax basis of the old partner's assets added to the incoming partner's consideration.
c. The incoming partner's market value of consideration divided by the incoming partner's percentage share in profit and loss.
d. The incoming partner's market value of consideration divided by the incoming partner's percentage ownership share in the new partnership.

ANS: D
DIF: M
OBJ: 3
9. If goodwill is traceable to the previous partners, it is
a. allocated among the previous partners according to their interest in capital.
b. allocated among the previous partners only if there are no other assets to be revalued.
c. allocated among the previous partners according to their original profit-and-loss-sharing percentages.
d. not possible for goodwill to also be traceable to the incoming partner.

ANS: C DIF: M OBJ: 3
10. If goodwill is traceable only to the previous partners,
a. the book value of the previous partnership plus the investment of the incoming partner will be greater than the fair market value of the partnership as suggested by the incoming partner's investment.
b. the new partner's initial capital balance is equal to his or her investment in the partnership.
c. existing assets of the previous partnership will never be revalued.
d. none of the above.

ANS: B
DIF: M
OBJ: 3
11. If goodwill is traceable to the incoming partner, the new partner's capital balance equals
a. the fair market value of consideration paid by the incoming partner
b. the book value of the older partnership divided by the existing partners' ownership percentage in the new partnership minus the book value of the old partnership.
c. incoming partner's ownership percentage multiplied by the capital of the new partnership
d. none of the above.

ANS: B DIF: M OBJ: 3
12. Palit buys Quincy's partnership interest in the Q-R-S partnership. Quincy thus retires, leaving Reale and Susien as Palit's co-partners. Prior to Palit entering the partnership, Quincy, Reale, and Susien split profits and losses equally. Palit pays $\$ 75,000$ for Quincy's capital which, at the time, totaled \$60,000. No revaluation of partnership assets or liabilities occurs at the time. In recording this event on the partnership books
a. Goodwill is booked based on the book value/fair value difference.
b. $\$ 7,500$ bonuses are added to Reale and Susien capital.
c. $\$ 5,000$ bonuses are added to Quincy, Real, and Susien capital.
d. Palit capital is created in the amount of $\$ 60,000$.

ANS: D DIF: D OBJ: 2
13. If an existing partner withdraws from a partnership,
a. his or her interest may be sold to the partnership or an individual partner.
b. the consideration received for that partner's interest may suggest the existence of undervalued existing assets and/or goodwill.
c. either the bonus or the goodwill method may be used to record the transaction if the partnership acquires the withdrawing partner's interest.
d. all of the above.

ANS: D DIF: E OBJ: 6
14. If goodwill is suggested by the consideration paid to a withdrawing partner,
a. only the goodwill traceable to the withdrawing partner may be recorded.
b. goodwill traceable to the original partnership is allocated among the partners according to their respective interests in capital.
c. the goodwill traceable to the withdrawing partner represents the difference between the partner's capital balance and the consideration he or she receives.
d. none of the above.

ANS: C DIF: M OBJ: 6
15. Callie is admitted to the Adams \& Beal Partnership under the bonus method. Callie contributes cash of $\$ 20,000$ and non-cash assets with a market value of $\$ 30,000$ and book value of $\$ 15,000$ in exchange for a $20 \%$ ownership interest in the new partnership. Prior to the admission of Callie, the capital of the existing partnership was $\$ 130,000$ and an appraisal showed the partnership net assets were fairly stated.

What will be Callie's initial capital balance?
a. \$36,000
b. \$50, 000
c. $\$ 35,000$
d. \$30,000

ANS: A
New Partnership Capital $=130,000+50,000=180,000$
Callie Capital $=20 \% \times 180,000$
DIF: D OBJ: 2
16. Callie is admitted to the Adams \& Beal Partnership under the bonus method. Callie contributes cash of $\$ 20,000$ and non-cash assets with a market value of $\$ 30,000$ and book value of $\$ 15,000$ in exchange for a $20 \%$ ownership interest in the new partnership. Prior to the admission of Callie, the capital of the existing partnership was $\$ 130,000$ and an appraisal showed the partnership net assets were fairly stated. Adams \& Beal shared profits and losses at a ratio of 80/20, respectively.

Which of the following bonus amounts would be recorded?
a. \$14,000 to Callie capital
b. $\$ 2,800$ increase to Beal capital
c. $\$ 2,800$ decrease to Beal capital
d. \$7,000 increase to Adams capital

ANS: B
New Partnership Capital = 130,000 + 50,000 = \$180,000
Callie Capital = 20\% x 180,000 = 36,000
Bonus = 50,000 - 36,000 = 14,000; 80\% increase to Adams capital; 20\% increase to Beal capital

DIF: D OBJ: 2
17. Assume the existing capital of a partnership is $\$ 100,000$. Two partners currently own the partnership and split profits 40/60. A new partner is to be admitted and will contribute net assets with a fair value of \$50, 000. An appraisal of existing partnership assets indicates accounts receivable overstated by \$10,000, inventory overstated by $\$ 12,000$ and land understated by $\$ 25,000$. What is the total capital of the new partnership if the bonus method is being used?
a. \$153, 000
b. \$128,000
c. \$175, 000
d. \$150, 000

ANS: B
DIF: M
OBJ: 2
18. Assume that the capital of an existing partnership is $\$ 90,000$ and all existing assets reflect fair market values. If an incoming partner acquires a 40\% interest in the partnership for $\$ 55,000$, the goodwill traceable to the incoming partner is
a. \$15,000
b. \$5,000
c. \$3,000
d. \$2,000

ANS: B
DIF: M
OBJ: 3
19. Assume that the capital of an existing partnership is $\$ 130,000$ and that existing assets are overvalued by \$10,000. If an incoming partner acquires a $25 \%$ interest in the partnership for $\$ 37,000$, goodwill traceable to the incoming partner is $\qquad$ .
a. \$1,000
b. \$9,667
c. $\$ 3,000$
d. \$5,000

ANS: C DIF: M OBJ: 3
20. The following is the priority sequence in which liquidation proceeds will be distributed for a partnership:
a. partnership drawings, partnership liabilities, partnership loans, partnership capital balances.
b. partnership liabilities, partnership loans, partnership capital balances.
c. partnership liabilities, partnership loans, partnership drawings, partnership capital balances.
d. partnership liabilities, partnership capital balances, partnership loans.

ANS: B DIF: M OBJ: 7
21. Which of the following statements is correct regarding a partner's debit capital balances?
a. The partner should make contributions to reduce the debit balance to whatever extent possible.
b. If contributions are not possible, the other partners with credit capital balances will be allocated a portion of the debit balance based on their proportionate profit-and-loss-sharing percentages.
c. Partners who absorb another's debit capital balance have a legal claim against the deficient partner.
d. All of these statements are correct.

ANS: D
DIF: M
OBJ: 7
22. The doctrine of marshaling of assets
a. is applicable only if the partnership is insolvent.
b. allows partners to first contribute personal assets to unsatisfied partnership creditors.
c. is applicable if either the partnership is insolvent or individual partners are insolvent.
d. provides that when the Uniform Partnership Act is adopted, amounts owed to personal creditors and to the partnership for debit capital balances are shared proportionately from the personal assets of the partners.

ANS: C DIF: E OBJ: 8
23. If a partnership has only non-cash assets, all liabilities have been properly disbursed, and no additional liquidation expenses are expected, the maximum potential loss to the partnership in the liquidation process is:
a. the fair market value of the non-cash assets
b. the book value of the non-cash assets
c. the estimated proceeds from the sale of the assets less the book value of the non-cash assets
d. none of the above

ANS: B
DIF: M
OBJ: 10
24. Allen, Branden \& Caylin are in the process of liquidating their partnership. They have the following capital balances and profit and loss percentages:

> Allen Branden Caylin

| Capital Balance |
| ---: |
| 5,000 debit |
| 18,000 credit |
| 6,000 credit |


| Profit/Loss \% |
| :---: |
| $20 \%$ |
| $50 \%$ |
| $30 \%$ |

The partnership balance sheet shows cash of $\$ 5,000$, non-cash assets of \$14,000, and no liabilities. Assuming no liquidation expenses, what safe payment could be made?
a. $\$ 5,000$ split between Branden \& Caylin by a ratio of $5 / 8$ and $3 / 8$, respectively.
b. \$5,000 to Branden only
c. \$1,000 to Allen, $\$ 2,500$ to Branden, and $\$ 1,500$ to Caylin
d. \$18,000 to Branden only

ANS: B DIF: D OBJ: 10
25. A partner's maximum loss absorbable is calculated by
a. dividing the partner's capital balance by his or her profit-and-loss-sharing percentage.
b. multiplying the partner's capital balance by his or her profit-and-loss-sharing percentage.
c. multiplying distributable assets by the partner's profit-sharing percentage.
d. dividing the partner's capital balance by his or her percentage interest in capital.

ANS: A
DIF: M
OBJ: 10
26. Under the doctrine of marshaling of assets, unsatisfied partnership creditors
a. must first proceed against the partner with the largest capital balance.
b. may attach to the assets of an individual partner before individual creditors have been satisfied.
c. may proceed against any personally solvent partner.
d. may proceed against any personally solvent partner but only to the extent of their capital balance in the partnership.

ANS: C
DIF: M
OBJ: 8
27. Partner T is personally insolvent, owing \$400,000. Personal assets will only bring \$150, 000 when liquidated. At the same time, T has a credit capital balance in the partnership of $\$ 85,000$. The capital amounts of the other partners total a (credit) balance of $\$ 200,000$. Under the doctrine of marshaling of assets, the personal creditors of T can collect up to $\qquad$ .
a. \$150, 000
b. $\$ 235,000$
c. $\$ 400,000$
d. \$435,000

ANS: B
DIF: M
OBJ: 8
28. Partners Thomas, Adams and Jones have capital balances of $\$ 24,000$, $\$ 45,000$, and $\$ 90,000$ respectively. They split profits in the ratio of 3:3:4, respectively. Under a predistribution plan, one of the partners will get the following total amount in liquidation before any other partners get anything:
a. \$22,500
b. \$30,000
c. $\$ 40,000$
d. \$75, 000

ANS: B DIF: M OBJ: 10
29. Assume that a partnership had assets with a book value of $\$ 240,000$ and a market value of $\$ 195,000$, outside liabilities of $\$ 70,000$, loans payable to partner Able of $\$ 20,000$, and capital balances for partners Able, Baker, and Chapman of $\$ 70,000, \$ 30,000$, and $\$ 50,000$. How much would Able receive upon liquidation of the partnership assuming profits and losses are allocated equally?
a. \$70,000
b. \$90,000
c. \$75,000
d. \$55,000

ANS: D DIF: M OBJ: 10
30. Assume that a partnership had assets with a book value of $\$ 240,000$ and a market value of $\$ 195,000$, outside liabilities of $\$ 70,000$, loans payable to partner Able of $\$ 20,000$, and capital balances for partners Able, Baker, and Chapman of $\$ 70,000, \$ 30,000$, and $\$ 50,000$. How would the first $\$ 100,000$ of available assets be distributed assuming profits and losses are allocated equally?
a. \$70, 000 to outside liabilities, $\$ 20,000$ to Able, and the balance equally among the partners
b. \$70,000 to outside liabilities and \$30,000 to Able
c. \$70,000 to outside liabilities, \$25,000 to Able, and \$5,000 to Chapman
d. \$40,000 to Able, \$20,000 to Chapman, and the balance equally among the partners

ANS: B DIF: D OBJ: 10
31. Assume that a partnership had assets with a book value of $\$ 240,000$ and a market value of $\$ 195,000$, outside liabilities of $\$ 70,000$, loans payable to partner Able of $\$ 20,000$, and capital balances for partners Able, Baker, and Chapman of \$70,000, \$30,000, and \$50,000. If all outside creditors and loans to partners had been paid, how would the balance of the assets be distributed assuming that chapman had already received assets with a value of $\$ 30,000$ assuming profits and losses are allocated equally?
a. Each of the partners would receive $\$ 25,000$.
b. Each of the partners would receive $\$ 40,000$.
c. Able: \$70,000, Baker: \$30,000, Chapman: \$20,000
d. Able: \$55,000, Baker: \$15,000, Chapman: \$5,000

ANS: D DIF: M OBJ: 9
32. Partners Able, Baker, and Chapman have the following personal assets, personal liabilities, and partnership capital balances:

|  | Able |  | Baker | Chapman |
| :--- | ---: | ---: | ---: | ---: |
| Personal assets......... | $\$ 30,000$ |  | $\$ 80,000$ | $\$ 60,000$ |
| Personal liabilities.... | 25,000 |  | 50,000 | 72,000 |
| Capital balances....... | 50,000 |  | $(32,000)$ | 70,000 |

Assume profits and losses are allocated equally.
After applying the doctrine of marshaling of assets, the capital balances for Able, Baker, and Chapman, respectively, would be
a. \$50, 000, \$(2,000), and \$58, 000 .
b. \$48,000, 0, and \$58,000.
c. \$49,000, 0, and \$57,000.
d. \$34,000, 0, and \$54,000

ANS: C
DIF: M
OBJ: 8
33. Partners Dalton, Edwards, and Finley have capital balances of $\$ 40,000$, 90,000 and \$30,000, respectively, immediately prior to liquidation. Total remaining assets have a book value of $\$ 160,000$, the liabilities having been paid. Among these remaining assets is a machine with a fair value of $\$ 35,000$. The partners split profits and losses equally. Edwards covets the machine and is willing to accept it for $\$ 35,000$ in lieu of cash. The other partners have no designs on specific assets, only cash in liquidation. How much cash, in addition to the machine, would be first distributed to Edwards, before any of the other partners received anything?
a. \$15,000
b. \$50, 000
c. $\$ 166,667$
d. \$300, 000

ANS: A
DIF: D
OBJ: 10

## PROBLEM

1. Lee, Alverez, and Tyne have a partnership. Their capital balances are $\$ 50,000, \$ 70,000$ and $\$ 30,000$, respectively. The partner profit percentages are $30 \%, 40 \%$, and $30 \%$, respectively. They are considering on what basis to admit Patton, a prospective new partner. Based on appraisal analysis, the net assets of the partnership are worth $\$ 180,000$. Patton is willing to put up cash of $\$ 30,000$, plus a machine with book value of $\$ 12,000$ and a fair value of $\$ 20,000$.

Required:

Calculate, using the goodwill method, what the partnership balances will be if the existing partners recognize the differential between fair value and book value of the partnership's net assets as goodwill. What will Patton's percentage of partnership capital be, assuming the above deal goes through?

ANS:
Capital Balances:

|  | Lee | Alverez | Tyne | Patton | Total |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Prior Capital | \$50,000 | \$70,000 | \$30,000 |  | \$150,000 |
| Goodwill | 9,000 | 12,000 | 9,000 |  | 30, 000 |
| Resulting Amounts | 59,000 | 82,000 | 39,000 | 0 | \$180,000 |
| New Investment |  |  |  | 50,000 | 50,000 |
| Balances | \$59, 000 | \$82,000 | \$39,000 | \$50,000 | \$230,000 |

Patton's interest in partnership capital:


DIF: E OBJ: 3
2. Smith, Thompson and Nickels have a partnership. Their capital balances are \$90,000, \$130,000 and \$150,000, respectively. They share profits and losses $25 \%, 35 \%$ and $40 \%$, respectively. Foster wants to become a partner with a 10 percent share in partnership capital with a $\$ 60,000$ cash contribution to the partnership. Appraisal of the partnership reveals that the assets of the partnership are fairly valued.

Required:
Calculate Smith, Thompson, and Nickel's ending capital balances under the:
a. Bonus Method
b. Goodwill Method

ANS :
a.

Prior Capital............................................ $\$ 370,000$
Foster Contribution.........................................
60, 000
Book Value - New Partnership
$\$ 430,000$
Foster's Capital = 10\% x 430,000 = 43,000
Bonus = 60,000 - 43,000 = 17,000
Bonus is split $25 \%$ to Smith = \$4,250
$35 \%$ to Thompson $=\$ 5,950$
$40 \%$ to Nickels $=\$ 6,800$

|  | Smith | Thompson | Nickel | Foster | Total |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Prior Capital | \$90,000 | \$130,000 | \$150,000 |  | \$370, 000 |
| Foster's capital |  |  |  | \$43, 000 | \$ 43,000 |
| Bonus to old partners | 4,250 | 5,950 | 6,800 |  | \$ 17,000 |
| Ending Capital | \$94,250 | \$135,950 | \$156, 800 | \$43, 000 | \$430, 000 |

b. Implied Fair Market Value-New Partnership: $\$ 60,000=\$ 600,000$

10\%
Book Value of New Partnership $=\$ 370,000+60,000=\$ 430,000$
Goodwill $=$ \$600, 000 - \$430,000 = 170,000
Goodwill is split $25 \%$ to Smith $=\$ 42,500$
$35 \%$ to Thompson $=\$ 59,500$
40\% to Nickels = \$68, 000

|  | Smith | Thompson | Nickel | Foster | Total |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Prior Capital | \$ 90,000 | \$130, 000 | \$150,000 |  | \$370, 000 |
| Foster's capital |  |  |  | \$60, 000 | \$ 60,000 |
| Goodwill-old partners | 42,500 | 59,500 | 68,000 |  | \$170,000 |
| Ending Capital | \$132,500 | \$189, 500 | \$218, 000 | \$60, 000 | \$600, 000 |

DIF: M OBJ: 2, 3
3. Wright, Smith, and Young are partners with present capital balances of $\$ 60,000, \$ 35,000$, and $\$ 30,000$, respectively. The partners share profits and losses according to the following percentages: 40\% for Wright, 30\% for Smith, and $30 \%$ for Young. Locke is to join the partnership upon contributing $\$ 40,000$ to the partnership in exchange for a $20 \%$ interest in capital and a $20 \%$ interest in profits and losses. The existing assets of the original partnership are undervalued by $\$ 20,000$. The original partners will share the balance of profits and losses in proportion to their original percentages.

Required:
Calculate the capital balances for each individual in the new partnership, assuming use of the bonus and goodwill methods.

ANS :

Bonus method:

|  | Wright | Smith | Young | Locke |
| :---: | :---: | :---: | :---: | :---: |
| Original capital balance..... \$60,000 \$35,000 \$30,000 Investment of new partner: |  |  |  |  |
|  |  |  |  |  |
| Bonus* | 2,800 | 2,100 | 2,100 |  |
| Capital balance* |  |  |  | \$33, 000 |
| Total | \$62,800 | \$37,100 | \$32,100 | \$33,000 |
| $\begin{aligned} & *(\$ 60,000+\$ 35,000+\$ 30,000+\$ 40,000) \times 20 \%=\$ 33,000 \\ & \$ 40,000-\$ 33,000=\$ 7,000 \text { bonus } \\ &(\$ 7,000 \times 40 \%=\$ 2,800 ; \$ 7,000 \times 30 \%=\$ 2,100)\end{aligned}$ |  |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |

Goodwill method:

| Original capital balance. | \$60, 000 | \$35, 000 | \$30, 000 |  |
| :---: | :---: | :---: | :---: | :---: |
| Asset revaluation | 8,000 | 6,000 | 6,000 |  |
| Goodwill** | 6,000 | 4,500 | 4,500 |  |
| Investment of new partner |  |  |  | \$40, 000 |
| Total | \$74, 000 | \$45,500 | \$40,500 | \$40, 000 |

```
** $40,000 \div 20% = $200,000;
$200,000 - ($60,000 + $35,000 + $30,000 + $20,000 + $40,000) = $15,000
goodwill
```

DIF: M OBJ: 2, 3
4. Martel, Tusk, and Davis are partners with present capital balances of $\$ 40,000, \$ 50,000$, and $\$ 20,000$, respectively. The partners share profits and losses according to the following percentages: 60\% for Martel, 30\% for Tusk, and $10 \%$ for Davis. Frank is to join the partnership upon contributing $\$ 40,000$ to the partnership in exchange for a $25 \%$ interest in capital and a $20 \%$ interest in profits and losses. An appraisal of the existing partnerships' assets reveals the following:

| Accounts Receivable | $\$ 20,000$ overvalued |
| :--- | :--- |
| Inventory | $\$ 10,000$ overvalued |
| Land | $\$ 10,000$ undervalued |
| Building | $\$ 15,000$ undervalued |

Required:
Calculate the capital balances for each individual in the new partnership assuming use of the bonus and goodwill methods.

ANS :
Bonus method:

|  | Martel | Tusk | Davis | Frank |
| :---: | :---: | :---: | :---: | :---: |
| Original capital balance | \$ 40,000 | \$50,000 | \$20,000 |  |
| Asset revaluation. | $(18,000)$ | $(9,000)$ | $(3,000)$ |  |
| Investment of new partner: |  |  |  |  |
| Bonus* | 6,000 | 3,000 | 1,000 |  |
| Capital balance* |  |  |  | \$30,000 |
| Total. | \$ 28,000 | \$44,000 | \$18,000 | \$30,000 |



Frank's Capital = 25\% * 120,000 = 30,000
Bonus $=40,000-30,000=10,000$
Goodwill method:

| Original capital bala | \$ 40,000 | \$50, 000 | \$20, 000 |  |
| :---: | :---: | :---: | :---: | :---: |
| Asset Write Down | $(18,000)$ | (9,000) | $(3,000)$ |  |
| Asset Write Up | 15,000 | 7,500 | 2,500 |  |
| Goodwill** | 9,000 | 4,500 | 1,500 |  |
| Investment of new pa |  |  |  | \$40, 000 |
| Total | \$46,000 | \$53,000 | \$21,000 | \$40,000 |

** \$40,000 $\div 25 \%=\$ 160,000 ;$
\$160,000 - (\$110,000 - \$30,000 + \$25,000 + 40,000) = \$15,000 goodwill

DIF: D OBJ: 2, 3
5. Long-term partners, Pop, Ping, and Pam have capital balances of $\$ 60,000, \$ 45,000$ and $\$ 30,000$, respectively. They share in profits and losses $50 \% / 30 \% / 20 \%$, respectively. All assets are valued fairly. Pam decides to retire from the partnership. Calculate the remaining partners' capital balances after the Pam withdrawal under the following situations:
a. Pam sells the interest to Ping for $\$ 25,000$.
b. Pam sells the interest to the partnership for $\$ 25,000$; bonus method is used
c. Pam sells the interest to the partnership for $\$ 40,000 ;$ goodwill attributable only to the exiting partner is recorded

ANS:

| a. Capital Balances | Total | Pop | Ping | Pam |
| :---: | :---: | :---: | :---: | :---: |
| Before retirement: | \$135,000 | \$60,000 | \$45,000 | \$ 30,000 |
| Pam Withdraws: |  |  | 30,000 | $(30,000)$ |
| After Retirement: | \$135,000 | \$60, 000 | \$75,000 | - |
| b. Capital Balances: | Total | Pop | Ping | Pam |
| Before retirement: | \$135,000 | \$60,000 | \$45,000 | \$ 30,000 |
| Pam Withdraws: | $(25,000)$ | 3,125 | 1,875 | $(30,000)$ |
| After Retirement: | \$110,000 | \$63,125 | \$46,875 | \$ 0 |

Price paid to Pam $=\$ 25,000$
Pam Capital = \$30,000
Bonus to Pop/Ping $=\$ 5,000$; split on remaining profit and loss of 5/8
and 3/8, respectively.

| c. Capital Balances: | Total |  | Pop |  | Ping |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Before retirement: | $\$ 135,000$ |  | $\$ 60,000$ |  | $\$ 45,000$ | | $\$ 30,000$ |
| :---: |
| Pam's share GW: |
| Pam Withdraws: |

Price paid to Pam $=\$ 40,000$
Pam Capital = \$30,000
Pam's share of Goodwill = \$10,000

DIF: M OBJ: 2, 3, 6
6. Oak, Pine, and Maple are partners with present capital balances of \$42,000, $\$ 39,000$, and $\$ 90,000$, respectively. The partners share profits and losses according to the following percentages: 20\% for Oak, 20\% for Pine, and $60 \%$ for Maple. The existing assets of the original partnership have market values equal to book values except for the following:

Accounts Receivable: overvalued by \$10,000
Land: undervalued by \$30,000.
Pine has agreed to sell her interest to the partnership for $\$ 45,000$.

Required:
Calculate the capital balances for each individual in the new partnership, assuming use of the bonus and goodwill methods. The goodwill method should recognize the goodwill traceable to all partners.

ANS :

Bonus method:

|  | Total | Oak | Pine | Maple |
| :---: | :---: | :---: | :---: | :---: |
| Original capital balance. | \$171,000 | \$42,000 | \$ 39,000 | \$90,000 |
| Asset revaluation | $(10,000)$ | (2, 000) | (2, 000) | $(6,000)$ |
| Distribution (6,00) |  |  |  |  |
| to withdrawing partner: |  |  |  |  |
| Bonus* | ( 8,000) | (2, 000) |  | $(6,000)$ |
| Capital balance* | (37,000) |  | $(37,000)$ |  |
| Total | \$116,000 | \$38,000 | \$ 0 | \$78,000 |

* Price Paid to Pine = \$45,000

Pine's Adjusted Capital= \$37,000
(after asset revaluation)
Bonus $=\$(8,000)$
Split to Oak and Maple on remaining profit and loss ratios of $2 / 8$ and 6/8, respectively

Goodwill method:

|  | Total | Oak | Pine | Maple |
| :---: | :---: | :---: | :---: | :---: |
| Original capital balance. | \$171,000 | \$42,000 | \$ 39,000 | \$ 90,000 |
| Asset revaluation. | (10, 000) | ( 2,000 ) | (2, 000) | $(6,000)$ |
| Asset revaluation. | 30, 000 | 6,000 | 6,000 | 18,000 |
| Distribution |  |  |  |  |
| to withdrawing partner: |  |  |  |  |
| Goodwill* | 10,000 | 2,000 | 2,000 | 6,000 |
| Capital balance* | (45,000) |  | $(45,000)$ |  |
| Total | \$156,000 | \$48,000 | \$ 0 | \$108, 000 |

* Price Paid to Pine $=\$ 45,000$

Pine's Adjusted Capital= \$43,000
(after asset revaluation)
Pine's share of Goodwill $=\$ 2,000$
Total Goodwill implied $=\$ 10,000$ (\$2,000 / 20\%)

DIF: D OBJ: 2, 3, 6
7. The partnership of Able, Bower, and Cramer was liquidated. The partners have shared profits and losses in the ratio of 2:4:4. Prior to liquidation, their capital balances were the following*:

| Able | Bower | Cramer |
| :---: | :---: | :---: |
| $\$ 10,000$ | $\$(5,000)$ | $\$(15,000)$ |

* Deficit shown in parentheses

Cash totaled \$20,000, with liabilities amounting to \$30,000. A review of the individual partners' personal financial status reveals the following:

|  | Assets | Liabilities |
| :--- | ---: | :---: |
| Able | $\$ 5,000$ | $\$ 20,000$ |
| Baker | 6,000 | 4,000 |
| Cramer | 30,000 | 20,000 |

Required:
Prepare a worksheet to liquidate the partnership.

ANS:

|  | Cash | Liabs | Able | Bower | Cramer |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Beginning: | \$ 20,000 | \$(30, 000) | \$(10, 000) | \$ 5,000 | \$ 15,000 |
| Payment of liabs: | $(20,000)$ | 20,000 |  |  |  |
|  | \$ 0 | \$(10, 000 ) | \$(10, 000) | \$ 5,000 | \$ 15,000 |
| Cramer/Baker pay in <br> From personal worth to cover <br> deficit balances: 12,000 (2,000) (10,000) |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  | \$ 12,000 | \$(10, 000) | \$(10, 000) | \$ 3,000 | \$ 5,000 |
| Payment of liabs: | $(10,000)$ | 10,000 |  |  |  |
|  | \$ 2,000 | \$ 0 | \$(10, 000) | \$ 3, 000 | \$ 5,000 |
| Allocation of |  |  |  |  |  |
| Deficit balances: |  |  | 8,000 | (3,000) | $(5,000)$ |
|  | \$ 2,000 | \$ 0 | \$ (2,000) | \$ 0 | \$ 0 |
| Able paid: | (2,000) |  | 2,000 |  |  |
|  | \$ 0 | \$ 0 | \$ 0 | \$ 0 | \$ 0 |

DIF: M OBJ: 7, 9
8. Merz, Dechter, and Flowers are partners in a partnership and share profits and losses $40 \%$, $40 \%$, and $20 \%$, respectively. The partners have agreed to liquidate the partnership and anticipate that liquidation expenses will total $\$ 14,000$. Prior to the liquidation, the partnership balance sheet reflects the following book values:

| Cash | \$ 25,000 |
| :---: | :---: |
| Noncash assets | 200,000 |
| Note payable to Flowers. | 12,000 |
| Other liabilities | 165,000 |
| Capital, Merz | 40, 000 |
| Capital Dechter | 18, 000 |
| Capital deficit, Flowers | $(10,000)$ |

## Required:

Assuming that the actual liquidation expenses are $\$ 20,000$ and that noncash assets are sold for $\$ 160,000$, determine how the assets will be distributed. Flowers has net personal assets of \$10,000.

ANS:
For the worksheet solution, please refer to Answer 14-1.

DIF: D OBJ: 7, 8, 9
9. The Nice, Rice, and Dice Partnership has not been successful. The partners have determined they must liquidate their partnership. The partners have agreed to liquidate the partnership and anticipate that liquidation expenses will total \$1,000. Prior to the liquidation, the partnership balance sheet reflects the following book values:


Profits and losses are shared $45 \%$ to Nice, $35 \%$ to Rice, and $20 \%$ to Dice. A review of the individual partner's personal net worth reveals the following:

|  | Assets | Liabilities |
| :--- | :---: | :---: |
| Nice | 165,000 | 162,000 |
| Rice | 200,000 | 110,000 |
| Dice | 185,000 | 90,000 |

The following transactions occur:
a. Assets having a book value of $\$ 40,000$ are sold for $\$ 22,000$ cash b. Liabilities are paid, where possible
c. Partners contribute from their personal net worth, according to UPA requirements and Marshaling of Assets concepts

Required:
Prepare liquidation schedule and determine how the available assets will be distributed using a schedule of safe payments.

ANS:

|  |  | Cash | Noncash | Liabs | Nice* | Rice | Dice |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Beginning: | \$ | 18,000 | \$ 51,000 | \$(20,000) | \$ $(3,000)$ | \$(30,000) | \$(16,000) |
| Sale of Asset |  | 22,000 | $(40,000)$ |  | 8,100 | 6,300 | 3,600 |
| Payment of |  |  |  |  |  |  |  |
| liabs: |  | $(20,000)$ |  | 20,000 |  |  |  |
| Balance: |  | 20,000 | \$ 11,000 | 0 | \$ 5,100 | \$(23,700) | \$(12,400) |
| Nice pays in from personal worth to cover deficit |  |  |  |  |  |  |  |
| balances: |  | 3,000 |  |  | $(3,000)$ |  |  |
| Balance |  | 23,000 | \$ 11,000 | 0 | \$ 2,100 | \$(23,700) | \$(12,400) |
| Allocation of |  |  |  |  |  |  |  |
| Deficit |  |  |  |  |  |  |  |
| balance: |  |  |  |  | $(2,100)$ | 1,336 | 764 |

Schedule of
Safe Payments:
Expected
Liquidation
Expenses (1,000) $636 \quad 364$
Max Loss Poss.: $\$(11,000) \quad \frac{7,000}{\$(1,728)} \frac{4,000}{\$(7,272)}$


DIF: M
OBJ: 10
10. The Tyler, Russell, and Colby partnership is liquidating. The three partners share profits and losses equally. The following is the postclosing trial balance for the partnership:


Required:
Draft a predistribution plan for the partnership liquidation and provide a schedule of payments.

ANS:


| Amount |  | Payable to |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  | Liabilities | Tyler | Russell | Colby |
| First \$70,000 | \$70,000 |  |  |  |
| Next \$20,000 |  |  | 100\% |  |
| Next \$6,000 |  | 50\% |  | 50\% |
| Additional payments |  | 1/3 | 1/3 | 1/3 |

DIF: M OBJ: 10
11. The J \& L Partnership has total assets of \$20,000 and total liabilities of $\$ 26,000$. Information relating to individual partners is as follows:

|  | Jacoby | Larson |
| :---: | :---: | :---: |
| Total personal assets | \$21,000 | \$25,000 |
| Total personal liabilities. | 16,000 | 20,000 |
| Partnership capital balance | $(8,000)$ | 2,000 |

Required:
a. Prepare a schedule showing the correct distribution of assets in accordance with the marshaling of assets.
b. Prepare a schedule showing the correct distribution of assets in accordance with the federal bankruptcy law.
c. Discuss which distribution seems more equitable, and give reasons supporting your conclusion.

ANS:
a. For the worksheet solution, please refer to Answer 14-2.
b. Based on the theory that all partners are actually in a position of unlimited liability when acting in the partnership's business, the marshaling of assets is more equitable because the responsibility of each individual partner is recognized directly, as evidenced by the contribution required of Larson for Jacoby's debt.
c. Under the marshaling of assets doctrine, the partners are individually responsible for the proper conduct and management of both their personal and partnership affairs. Marshaling does not combine or commingle explicitly the obligations arising from ones distinct personal and business affairs. However, under bankruptcy law, the position of personal creditors is weakened because they are required to share personal assets proportionally with partnership claims.

DIF: D OBJ: 7, 8, 9
12. The partnership of Alt, Brown, and Carns has total assets and liabilities of $\$ 30,000$ and $\$ 25,000$, respectively. Information relating to the partners is as follows:

|  | Alt | Brown | Carns |
| :---: | :---: | :---: | :---: |
| Total personal asse | \$90,000 | \$20,000 | \$12,000 |
| Total personal liabilities. | 60,000 | 15,000 | 15,000 |
| Partnership capital balance (deficit) | 10,000 | $(2,000)$ | $(3,000)$ |

## Required:

a. Assuming that the Uniform Partnership Act is applicable, indicate how the partners' personal assets would be distributed.
b. Assuming that federal bankruptcy laws are applicable, indicate how the partners' personal assets would be distributed.
c. Assume that the partnership had a deficit of $\$ 10,000$, allocated among Alt, Brown, and Carns as follows: \$2,000 surplus, $\$ 7,000$ deficit, and $\$ 5,000$ deficit, respectively. Indicate how the deficit would be satisfied when bankruptcy laws are applicable.

ANS :
a. Distribution of assets per the UPA:

|  | Alt | Brown | Carns |
| :---: | :---: | :---: | :---: |
| Personal assets | \$ 90,000 | \$ 20,000 | \$ 12,000 |
| Personal liabilities | (60, 000) | $(15,000)$ | $(12,000)$ |
| Partnership debts | 0 | (2, 000) | 0 |
| Balance. | \$ 30,000 | \$ 3,000 | \$ 0 |

b. Distribution of assets per bankruptcy law:

|  | Alt | Brown | Carns* |
| :---: | :---: | :---: | :---: |
| Personal assets | \$ 90,000 | \$ 20,000 | \$ 12,000 |
| Personal liabilities | (60, 000) | $(15,000)$ | (10, 000) |
| Partnership debts | 0 | (2,000) | (2, 000) |
| Balance | \$ 30,000 | \$ 3,000 | \$ 0 |

*The personal assets are allocated as follows:
For personal debt: $\$ 12,000 \times \frac{\$ 15,000}{\$ 15,000+\$ 3,000}=\$ 10,000$
For partnership debt: $\$ 12,000 \times \frac{\$ 3,000}{\$ 15,000+\$ 3,000}=\$ 2,000$

${ }^{1}$ Carns's personal assets are allocated to partnership debts as follows:

$$
\$ 12,000 \times \frac{\$ 5,000}{\$ 15,000+\$ 5,000}=\$ 3,000
$$

${ }^{2}$ The $\$ 7,000$ could be collected from Alt \& Brown in any of the following combinations:
a. \$7,000 from Alt only
b. \$2,000 from Alt + \$5,000 from Brown (\$20,000 \$15, 000) (preferred)
c. Any combination of Alt and Brown, but Brown's contribution cannot exceed \$5,000 (for example, \$4,000 from Alt and \$3,000 from Brown)

DIF: M OBJ: 7, 8
13. Richardson and George have been partners in the medical supply business since July 18, 20X3. Since the formation of the partnership, profits and losses have been shared in the ratio of 55:45, respectively. Capital balances on December 31, 20X7, were $\$ 159,000$ for Richardson and $\$ 106,000$ for George. They have agreed to admit Keller as a partner on January 1, 20X8. Keller will receive a 30\% interest in partnership capital, and future profits and losses will be allocated equally among the partners.

## Required:

Prepare journal entries in the partnership books to record Keller's admission in each of the following situations:
a. Keller deals directly with Richardson and agrees to exchange land with a book value of $\$ 60,000$ and a fair market value of $\$ 87,000$ for $50 \%$ of Richardson's interest in capital. Record Keller's contribution under the two alternative methods. What assumption is made under each alternative?
b. Keller contributes $\$ 130,000$ cash and a 1-year note with a value of $\$ 20,000$ to the partnership entity. Record journal entries under the bonus and goodwill methods.
c. Using the bonus method, assume that (1) Keller contributes $\$ 84,000$ and an established clientele, or (2) Keller's contribution of $\$ 84,000$ is sufficient because existing partnership assets are overvalued.
d. Keller invests \$84,000 in the partnership entity. Use the goodwill method and assume that net assets should not be written down.

ANS:
a. Alternative 1:

Richardson, Capital (50\% x \$159,000).... 79,500
Keller, Capital...................... 79,500
Under this alternative, the consideration paid by Keller is not used to suggest the imputed fair market value of the partnership. The transaction is between the partners, and the partnership merely records the transfer of 50\% of Richardson's capital interest to Keller's capital account.

Alternative 2:
Assets and/or Goodwill................ 25,000
Richardson, Capital..................
13,750
George, Capital
11, 250
Richardson, Capital
(50\% x [\$159,000 + \$13,750])....... 86,375
Keller, Capital......................
86,375
Under this alternative, the $\$ 87,000$ paid by Keller for a $30 \%$ interest suggests that the fair market value of the partnership entity is \$290,000. The difference between the imputed value of \$290,000 and the book value of \$265,000 represents undervalued existing assets and/or goodwill of $\$ 25,000$. This alternative is not normally employed to record transactions between individual partners.

```
b. Bonus method: Total capital of the new partnership equals
        $415,000 ($159,000 + $106,000 + $150,000). Keller's 30%
        interest equals $124,500.
    Cash..................................... 130,000
Note Receivable....................... 20,000
    Richardson, Capital................. 14,025
    George, Capital....................... 11,475
    Keller, Capital.................... 124,500
Goodwill method: Keller's $150,000 investment for a 30%
interest suggests a partnership fair market value of $500,000.
The $500,000 less the $415,000 book value represents $85,000
of goodwill to be recognized
\begin{tabular}{|c|c|c|}
\hline Cash. & 130,000 & \\
\hline Note Receivable & 20,000 & \\
\hline Goodwill & 85,000 & \\
\hline Richardson, Capi & & 46,750 \\
\hline George, Capital. & & 38,250 \\
\hline Keller, Capital. & & 150, 000 \\
\hline
\end{tabular}
c. (1) Bonus credited to new partner: Total capital in new partnership equals \$349,000 (\$159,000 + \$106,000 + \$84,000). Keller's 30\% interest equals \$104,700 (30\% x \$349,000).
\begin{tabular}{|c|c|c|}
\hline Cash & 84,000 & \\
\hline Richardson, Capital & 11,385 & \\
\hline George, Capital. & 9,315 & \\
\hline Keller, Capital & & 104,700 \\
\hline
\end{tabular}
(2) Existing partnership assets are overvalued: \$84,000 investment for a \(30 \%\) interest implies that capital of new partnership equals \$280,000. The \$280,000 less the \$84,000, or \$196,000, represents a fair market value of the old partners' capital. A write-down of \$69,000 ([\$159,000 + \$106,000] - \$196,000) is required.
\begin{tabular}{|c|c|c|}
\hline Richardson, Capital & 37,950 & \\
\hline George, Capital. & 31,050 & \\
\hline Assets & & 69,000 \\
\hline Cash & 84,000 & \\
\hline Keller, Capital & & 84,000 \\
\hline
\end{tabular}
d. Goodwill method: The \(\$ 265,000\) original book value should represent \(70 \%\) of the new partnership capital, or \(\$ 378,571\). Keller should have paid \(\$ 113,571\) ( \(\$ 378,571\) - \(\$ 265,000\) ), but only paid \$84,000; therefore, goodwill of \(\$ 29,571\) is suggested.
\begin{tabular}{|c|c|c|}
\hline Cash & 84,000 & \\
\hline Goodwill & 29,571 & \\
\hline Keller, Capital & & 113,571 \\
\hline
\end{tabular}
```

DIF: M OBJ: 2, 3, 5
14. Luc, Denis, and Rollande have capital balances of $\$ 30,000, \$ 70,000$, and \$15,000, respectively. The partners share profits/losses 2:6:2. All assets book values equal market except as noted. The partnership agreement states the bonus method is to be used to account for partner sale of interest to the partnership.

Required:
Calculate Luc's new capital balance resulting from each of the following independent situations:

Situation 1: Rollande sells his interest to the partnership for \$25,000. Bonus method is used.

Situation 2: Rollande sells his interest to Luc for $\mathbf{\$ 2 5 , 0 0 0 .}$
Situation 3: Martel purchases a 20\% interest from the partnership for $\$ 35,000$. The bonus method is used to account for the incoming partner.

Situation 4: The same as Situation 3 except that the goodwill method is used to account for the incoming partner.

ANS:
Situation 1: Luc's new capital balance is \$27,500 (\$30,000-\$2,500). Payment from the partnership of $\$ 25,000$ for Rollande's $\$ 15,000$ capital balance results in a bonus paid by the remaining partners to Rollande of $\$ 10,000$. The bonus is split to the remaining partners based on their remaining profit and loss ratios. (2/8 to Luc, 6/8 to Denis)

Situation 2: Luc's new capital balance is $\$ 45,000(\$ 30,000+\$ 15,000)$. Because the transaction involves individual partners and not the partnership, Rollande's balance is merely transferred to Luc's.

Situation 3: Luc's new capital balance is \$31,000 (\$30,000 + \$1,000 bonus). The new book value of the partnership is \$150,000. (BV of old \$115,000 + \$35,000 new partner contribution). Martel's capital balance is \$30,000. (New Partner Ownership \% of 20\% * \$150,000 new partnership book value) The result is a bonus of \$5,000 attributable to the original partners. (New Partner contribution of $\$ 35,000$ - $\$ 30,000$ new partner capital balance) The bonus will be split to the original partners based on their profit and loss ratio.

Situation 4: Luc's new capital balance is \$35,900 (\$30,000 + \$5,000 goodwill). A $\$ 35,000$ contribution in exchange for a $20 \%$ ownership interest implies a total fair market value of \$175,000. (\$35,000 / .20) No asset revaluations are noted, so the implied fair market value of $\$ 175,000$ exceeds the new partnership book value of $\$ 150,000$ by $\$ 25,000$. The $\$ 25,000$ represents goodwill and will be split among the original partners based on profit and loss ratios.

```
DIF: M OBJ: 2, 3, 5, 6
```

15. Rogers, Davis, and Smukalla have capital balances of $\$ 50,000, \$ 26,100$, and \$10,900, respectively. The partners share profits/losses equally.

Required:
Calculate Rogers' new capital balance resulting from each of the following independent situations:

Situation 1: Smukalla sells his interest in the partnership to Rogers for \$25,000.

Situation 2: Meyers purchases a one-fourth interest from the partnership for $\$ 35,000$. The bonus method is used to account for the incoming partner.

Situation 3: The same as Situation 2 except that the goodwill method is used to account for the incoming partner.

Situation 4: Davis sells her interest to the partnership for $\$ 30,000$. The total amount of suggested goodwill is to be recorded.

ANS:
Situation 1: Rogers' new capital balance is \$75,000 (\$50,000 + $\$ 25,000$ ). Because the transaction involves individual partners and not the partnership, Smukalla's balance is merely transferred to Rogers'.

Situation 2: Rogers' new capital balance is $\$ 51,500$ ( $\$ 50,000+\$ 1,500$ bonus). The book value of the old partnership plus Meyers' contribution totals \$122,000. Meyers' interest in this total is $\$ 30,500$ ( $\$ 122,000 \times 25 \%$ ). The contribution in excess of Meyers' interest of $\$ 4,500$ (\$35,000-\$30,500) is allocated equally among the original partners.

Situation 3: Rogers' new capital balance is \$56,000 (\$50,000 + \$6,000 goodwill). Meyers' purchase price of $\$ 35,000$ suggests that the whole partnership has a value of \$140,000 ( $\$ 35,000 \div 25 \%$ ). The book value of the old partnership plus Meyers' contribution totals \$122,000. Therefore, \$18,000 (\$140,000 - \$122,000 of goodwill is to be allocated equally among the original partners.

Situation 4: Rogers' new capital balance is \$53,900 (\$50,000 + \$3,900 goodwill). If Davis sells this interest for $\$ 3,900$ (\$30,000 - \$26,100) more than book value, then a onethird share of the total goodwill must be \$3,900. Rogers, in turn, has a similar interest in the goodwill.

DIF: M OBJ: 2, 3, 5, 6
16. The ALPHA, BETA, AND DELTA partnership has total assets of $\$ 260,000$. Capital balances for partners ALPHA, BETA, and DELTA are \$50,000, \$30,000, and \$50,000, respectively. The profit/loss percentages for partners ALPHA, BETA, and DELTA are 30\%, 40\%, and 30\%, respectively. Included in the liabilities is a $\$ 9,000$ loan payable to ALPHA. The partnership has elected to liquidate over the next several months. Liquidation expenses are estimated to be \$15,000.

## Required:

Assuming assets with a book value of $\$ 80,000$ were sold for $\$ 60,000$, and that $\$ 160,000$ cash is available, how should the available cash be distributed?

ANS:


Schedule of Safe Payments
Profit and loss percentage $\frac{\text { ALPHA }}{30 \%} \frac{\text { BETA }}{40 \%} \frac{\text { DELTA }}{30 \%} \quad$ Total
Capital balances before
distribution........... \$ 53,000 \$ 22,000 \$ 44,000 \$119,000

Estimated liquidation
expenses.............. $\quad(4,500) \quad(6,000) \quad(4,500) \quad(15,000)$
$\begin{array}{lcccrr}\text { Maximum loss possible.... } & (24,000) & (32,000) & (24,000) & (80,000) \\ \text { Allocate debit balances } . . & (8,000) & 16,000 & (8,000) & 0 \\ \text { Safe payment. ........... } \$ 16,500 & \$ & 0 & \$(7,500 & \$ 24,000\end{array}$

${ }^{1}$ This amount represents the asset balance of $\$ 119,000$ after paying the liabilities of $\$ 121,000$. If $\$ 160,000$ cash was available, then $\$ 39,000$ is available after paying the liabilities. Therefore, \$80,000 (\$119,000 - \$39,000) of assets are not in a cash form.

The \$160,000 cash is accounted for as follows:


DIF: D OBJ: 7, 9, 10
17. On July 1, 20X9, the Crawford Company has the following balance sheet:

| Assets |  | Liabilities and Capital |  |
| :---: | :---: | :---: | :---: |
| Cash. | \$ 17,000 | Accounts payable. | \$ 32,000 |
| Other assets | 183,000 | Due to Palmer | 12,000 |
|  |  | Other liabilities | 70,000 |
|  |  | Palmer, capital | 24,000 |
|  |  | Lake, capital | 62,000 |
| Total assets | \$200, 000 | Total liabilities and |  |
|  | ======== | capital.......... | \$200, 000 |

As of July 1, 20X9, the partners have personal net worth as follows:


The personal net worth of each partner does not include any amounts due to or from the partnership.

## Required:

Assume the other assets are sold for $\$ 103,000$ after incurring liquidation expenses of $\$ 4,000$. After liquidation of the partnership, determine how much is available to Lake's unsatisfied personal creditors based on the following:
a. Application of the Uniform Partnership Act
b. Application of common law

ANS:
a. For the worksheet solution, please refer to Answer 14-3.
b. If common law is applied, Palmer's debit balance would share on an equal basis with personal creditors. Therefore, \$5,887 $(\$ 52,000 \times 6,000 \div 53,000)$ would be contributed to the partnership. Lake would then have to absorb only a \$113 (\$6,000-\$5,887) debit balance on behalf of Palmer.

DIF: D
OBJ: 10
[[Insert ANSWER 14-1 from Excel spreadsheet]]
[[Insert ANSWER 14-2 from Excel spreadsheet]]
[[Insert ANSWER 14-3 from Excel spreadsheet]]

## Chapter 15 - Governmental Accounting: The General Fund and the Account Groups

## MULTIPLE CHOICE

1. What is the cornerstone of external financial reporting for governmental units and not-for-profit organizations?
a. show the flow of financial resources
b. to determine profit or loss
c. to compare budgeted to actual resources
d. accountability

ANS: D DIF: E OBJ: 1
2. A primary distinction between the flow of resources through a business enterprise and through a governmental entity is that operations in a governmental entity consume resources and assets to
a. produce goods and services to citizens entitled to receive them.
b. generate return on investment.
c. generate net income.
d. generate capital for future investments.

ANS: A DIF: E OBJ: 1
3. The body currently responsible for developing local governmental
accounting standards is the
a. Financial Accounting Standards Board (FASB)
b. Governmental Accounting Standards Board (GASB).
c. National Council on Governmental Accounting (NCGA).
d. Governmental Finance Officers Association (GFOA)

ANS: B DIF: E OBJ: 2
4. Recently effective accounting standards require the preparation of two separate sets of financial statements. The first set of fund financial statements are similar to the historical fund based reporting model. Which of the following statements is false concerning the additional financial statements that are now required?
a. the statements are designed to focus on the governmental unit as a whole
b. the statements consolidate all government operations on a full accrual basis
c. the statements are designed to report on the profit making ability of the resources collected
d. the statements adopt an economic measurement focus

ANS: C
DIF: M
OBJ: 3
5. The entry to record the Warwick City budget for the General Fund includes the following:

Estimated Revenues.................................. $\$ 4,000,000$
Appropriations.................................... 3, 850,000
Estimated Other Financing Uses.................. 400,000
Estimated Other Financial Sources................ 150,000
The entry to record this budget would include a debit to
a. Estimated Other Financing Uses.
b. Appropriations.
c. Budgetary Fund Balance.
d. Encumbrances.

ANS: C DIF: E OBJ: 6, 7
6. The governmental Accounting Standards Board has stated governmental
financial reporting should be designed to show:
a. accountability
b. interperiod equity
c. whether future taxpayers will be required to assume burden for services previously reported
d. all of the above

ANS: D
DIF: E
OBJ: 2
7. The modified accrual method of accounting is applied to which of the following funds or asset groups?
a. Proprietary funds
b. Governmental funds
c. Proprietary type fiduciary funds
d. Permanent funds

ANS: B
DIF: M
OBJ: 5
8. Which of the following correctly portrays the necessary journalization of the budget journal entry?

Debit
Credit
Estimated Revenues
Est. Other Fin. Sources
Appropriations
Est. Other Fin. Sources

ANS: C
DIF: M
OBJ: 6
9. Which of the following would not be considered a budgetary account in the General Fund?
a. Estimated Other Financial Sources
b. Appropriations
c. Estimated Revenues
d. Fund Balances--Reserved for Inventory

ANS: D
DIF: E
OBJ: 6
10. Which one of the following statements is false concerning the accounting for the budget in the general fund general ledger?
a. The budgetary accounts are affected regularly as revenues and expenditures are recognized.
b. The budgetary accounts can be adjusted during the year to reflect material changes in estimates.
c. The budgetary accounts are closed at the end of the period.
d. The budgetary account for expenditures is called appropriations.

ANS: A DIF: M OBJ: 6
11. Goods ordered and originally encumbered at $\$ 7,500$ were received with an invoice price of $\$ 7,700$. In recording this event,
a. Encumbrances would be debited for $\$ 200$.
b. Fund Balances--Reserved for Encumbrances would be debited for \$7,500.
c. Expenditures would be debited for $\$ 7,500$.
d. Appropriations would be debited for $\$ 200$.

ANS: B DIF: M OBJ: 8
12. Property taxes are recorded as revenue in the General Fund
a. when the property taxes are levied.
b. when the property taxes are due.
c. when property tax payments are received.
d. on a monthly pro rata basis.

ANS: A DIF: E OBJ: 7
13. The entry in the General Fund to record the posting of a tax lien by a city would include a credit to
a. Tax Lien Receivable.
b. Revenue.
c. Taxes Receivable.
d. Tax Receivable--Delinquent.

ANS: D
DIF: M
OBJ: 7
14. Revenue from other financing sources includes all of the following except for:
a. Issuing general long term debt
b. Receipt of interfund transfers
c. Revenues from the donation of capital assets
d. Sales of capital assets

ANS: C DIF: M OBJ: 7
15. Which of the following correctly identifies how certain transactions are recorded in the general fund?

Debits
Credits
a. Expenditures

Other financing uses
b. Expenditures
c. Other financing sources
d. Revenues

Other financing sources
Other financing uses
Expenditures

ANS: B
DIF: M
OBJ: 7
16. Which one of the following equations will yield the unobligated balance
in an expenditure subsidiary ledger account? Unobligated Balance =
a. Appropriations - Expenditures total
b. Appropriations - Encumbrances balance
c. Appropriations - Expenditures total - Encumbrances balance
d. Appropriations - Expenditures total + Encumbrances balance

ANS: C
DIF: M
OBJ: 8
17. Which of the following is not a type of account classification found in the general fund?
a. permanent balance sheet accounts
b. budgetary accounts
c. forecast accounts
d. operating accounts

ANS: C DIF: M OBJ: 7
18. A special assessment levied on citizens for a service they are receiving from a local government should be accounted for in a fund that matches the nature of the special assessment. Which of the following funds would not match a service activity?
a. Capital Projects Fund
b. General Fund
c. Special Revenue Fund
d. Enterprise Fund

ANS: A
DIF: M
OBJ: 10
19. Which of the following accounts would not be found in the year-end General Fund balance sheet of a city?
a. Cash
b. Allowance for Uncollectible Taxes
c. Land--Parks
d. Fund Balance--Reserved for Encumbrances

ANS: C
DIF: M
OBJ: 7
20. Which of the following items would be found in a city's General Fund statement of revenues, expenditures, and changes in fund balance?
a. Depreciation expenditure
b. Appropriation
c. Encumbrances
d. Other financing sources

ANS: D
DIF: E
OBJ: 9
21. Property taxes in the amount of $\$ 3,000,000$ are billed to city property owners. It is estimated that two percent will prove to be uncollectible. In recording this event,
a. estimated Revenues would be credited for $\$ 2,940,000$.
b. bad Debts would be debited for $\$ 60,000$.
c. tax Liens Receivable would be debited for $\$ 60,000$.
d. allowance for Uncollectible Current Property Taxes would be credited for \$60,000.

ANS: D DIF: M OBJ: 7
22. After the closing entries have been journalized and posted, but prior to the next accounting period, which of the following accounts would have a balance?
a. Fund Balance--Unreserved, Undesignated
b. Appropriations
c. Other Financing Uses
d. Revenues

ANS: A DIF: M OBJ: 9
23. GASB Statement 34 allows the government to avoid charging depreciation on infrastructure assets if:
a. the governmental unit can demonstrate they have incurred costs to preserve the assets at or above a conditional level.
b. the asset is not expected to be replaced.
c. the asset has a useful life of less than five years.
d. the asset will be replaced within five years.

ANS: A DIF: M OBJ: 3
24. When recording the acquisition of a fixed asset in a city's General Fixed Asset Account Group (GFAAG), the debit entry should be selected from one of the following accounts except
a. Land
b. Expenditures
c. Machinery and Equipment
d. Construction in Progress

ANS: B DIF: E OBJ: 10
25. When recording the acquisition of a fixed asset in a city's General Fixed Asset Account Group, the credit entry may be to which one of the following accounts?
a. Investment in General Fixed Assets--General Fund
b. Fund Balance Reserved for Encumbrances
c. Contributed Capital
d. Fund Balance--Expended

ANS: A DIF: E OBJ: 10
26. To record the sale of a fixed asset carried in the General Fixed Assets Account Group, a city could debit which one of the following accounts
in the GFAAG?
a. Cash
b. Expenditures
c. Accounts Receivable
d. Investment in General Fixed Assets--Donations

ANS: D DIF: E OBJ: 10
27. If a city uses a General Fixed Asset Account Group (GFAAG) and records depreciation in anticipation of the city wide financial reports, accumulated depreciation accounts are credited in the GFAAG. What would be the corresponding debit entry?
a. Expenditure in the General Fund
b. Depreciation expenditure in the GFAAG
c. The appropriate investment in general fixed assets account in the GFAAG
d. Accounting for usage is not permitted in the General Fund or GFAAG

ANS: C
DIF: M
OBJ: 10
28. Which of the following accounts would not be found on a city's General Fund Balance Sheet?
a. Other Financial Sources
b. Vouchers Payable
c. Allowance for Uncollectible Tax Liens
d. Due from State Government

ANS: A DIF: M OBJ: 7
29. If a city issues a term bond to purchase property for a city park, which of the following entries would be made?
a. Other Financing Sources would be credited in a Capital Projects Fund.
b. Cash would be debited in the General Long-Term Capital Debt Account Group.
c. Term Bonds Payable would be credited in the General Fund.
d. All of these entries would be made.

ANS: A
DIF: M
OBJ: 10
30. The City of Olburg failed to record invoiced expenditures for the last year of $\$ 15,000$ that were not encumbered. Of this amount, \$10,000 was paid this year debited to Expenditures(Control). The unpaid portion has not been vouchered. The entry to record this event would include a
a. \$15,000 credit to Expenditures.
b. \$15,000 debit to Fund Balance--Unreserved and Undesignated.
c. \$5,000 debit to Expenditures.
d. \$10,000 credit to Fund Balance--Unreserved and Undesignated.

ANS: B DIF: D OBJ: 7
31. If the City of Billings determines that it has $\$ 200,000$ of unfunded pension liability, it would record this liability as a(n)
a. expenditure in the General Fund
b. deferred liability in the GLTDAG
c. unfunded pension liability in the GLTDAG
d. due to pension trust fund in the General Fund

ANS: C DIF: M OBJ: 10
32. A city should record a liability for a claim from a citizen who files suit because their toddler drowned in the community swimming pool unattended by a lifeguard if
a. it is probable the lawsuit will be settled.
b. the amount of the judgment or settlement can be estimated.
c. the lifeguard has no private insurance to pay the claim.
d. $a$ and $b$

ANS: D DIF: M OBJ: 10
33. If a government enters into a securities lending agreement or reverse repurchase transaction, they would record as assets
a. the assets lent and the collateral received which would "doublecount" the assets.
b. only the collateral received.
c. only the assets originally held and lent.
d. the fair market value of the asset if sold.

ANS: A DIF: D OBJ: 10
34. If the police department purchases a police car for $\$ 20,000$ and trades in the old car for $\$ 6,000$ paying a net cash payment of $\$ 14,000$, the entry in the General Fund would
a. debit Automobiles for $\$ 14,000$.
b. debit Expenditures for \$14,000.
c. credit Automobiles for $\$ 6,000$.
d. debit Expenditures for \$20,000.

ANS: B
DIF: M
OBJ: 10
35. If the city expends more during the budget year than it receives during the budget year in revenues that are available to finance the expenditures, it will
a. increase interperiod equity.
b. decrease interperiod equity.
c. increase taxes.
d. force the city to fire some employees.

ANS: B DIF: M OBJ: 11

## PROBLEM

1. Why should a city be concerned with generally accepted accounting principles (GAAP)?

ANS:
Cities may need long-term capital to finance expenditures such as major building programs. Just as an individual might not be able to purchase a home without a long-term mortgage, a government may not be able to undertake major building programs without long-term financing through bonds. A government that plans to issue debt must obtain a bond rating from Moody's, Standard \& Poors or Fitch rating agencies. Failure to comply with GAAP may adversely affect a city's bond rating or result in no rating at all. An unfavorable bond rating will make long-term debt more expensive as a result of a higher interest rate or perhaps unavailable if an investment-grade rating is not obtained. Generally, purchasers of municipal bonds require an investment-grade rating. Cities that receive federal funds also must comply with GAAP under the single audit requirements of OMB Circular A-128 and the Single Audit Act.

DIF: E OBJ: 1
2. What is infrastructure and where would it be accounted for?

ANS:
Infrastructure are assets such as streets, streetlights, sidewalks, roads and other similar assets of the governmental unit. Infrastructure would be recorded as assets in the General Fixed Asset Account Group if the government elects to do so. Under current GASB requirements, they will be reported for in the government wide financial statements.

```
DIF: E
    OBJ: 10
```

3. Explain why governmental funds use budgetary accounts.

ANS:
The budgetary accounts are expenditures, encumbrances, revenues, estimated revenues, appropriations, budgetary fund balance, estimated other financing sources, estimated other financing uses, other financing sources, and other financing uses. The governmental funds use the modified accrual basis of accounting to capture the flow of financial resources that are available and measurable to finance the current budget's expenditures. The budgetary accounts start each fiscal period at zero and are created to record the budgetary transactions and events. At the end of each fiscal period, the budgetary accounts are closed and the effect of the economic events during this budget year will be reflected in the ending fund balance.

DIF: E OBJ: 6
4. Describe the three basic fund types and account groups and explain what changes, if any, the adoption of GASB standard \#34 has made on these classifications?

ANS:
The three basic funds are:
Governmental Funds: These funds account for all the activities that provide services financed through taxes, fines, and governmental grants. The main types of governmental funds are the General Fund, Special Revenue Fund, Capital Projects Fund, and a new fund resulting from the adoption of GASB \#34, the Permanent Fund. Permanent Funds account for resources that are restricted and only the income on these resources can be utilized to finance operations.
Proprietary Funds: These funds account for the business type activities conducted by governmental units. They derive the majority of their revenue through user charges. The basic types of funds in this group are Enterprise Funds and Internal Service Funds.

Fiduciary Funds: These funds account for resources where the governmental unit acts as a trustee or agent.

The two account groups, General Fixed Asset Account Group and the Long Term Liability Account Group are no longer required under GASB Statement \#34 but are still utilized by governmental units as a way to keep track of the detailed transactions affecting these groups.

DIF: M OBJ: 4
5. The Village of Applegate General Fund has the following accounts:
a. Budgetary Fund Balance
b. Property Taxes Receivable
c. Fund Balance Reserved for Encumbrances
d. Vouchers Payable
e. Expenditures
f. Other Financing Source--Bond Proceeds
g. Appropriations
h. Investments
i. Unreserved--undesignated Fund Balance

Required:
Identify the normal balance expected for each account during the fiscal year before closing entries. Select from debit, credit or either.

ANS:
a. Either
d. Credit
g. Credit
b. Debit
e. Debit
h. Debit
c. Credit
f. Credit
i. Credit
DIF: E
OBJ: 5
6. What is the concept of interperiod equity?

ANS:
The concept of interperiod equity would measure whether the equity of the governmental unit increased or decreased across generations (intergenerational) or periods (interperiod) equity. Were current resources/revenues adequate to pay for current services? For example, Ross Perot campaigned for President showing several bar charts that indicated how the federal deficit and debt has increased across time. Ross Perot demonstrated through his charts and graphs that current revenues were not adequate to pay for federal expenditures, and as a result, our grandchildren were going to have to pay for current services i.e., interperiod equity was decreasing across time.

```
DIF: E OBJ: 3
```

7. The following selected account balances for the City of Hampton on January 1, 20X8 are listed below:

Delinquent Taxes Receivable......................... \$34,000 Dr. Allowance for Uncollectible Delinquent Taxes...... 11,000 Cr.
Tax Liens Receivable.................................. 12, 000 Dr.
Allowance for Uncollectible Tax Liens.............. 5,000 Cr.

Required:
Record the following transactions that occurred during 20X8:
a. Current property taxes are levied at $\$ 750,000$ with a $4 \%$ allowance for uncollectible property taxes.
b. Property to which tax liens apply is sold for $\$ 6,000$ and the account is closed.
c. Current property taxes are collected in the amount of \$702,000.
d. Previous delinquent property taxes are converted to tax liens and the current property taxes are considered delinquent.

ANS:
a. Taxes Receivable--Current.............. 750,000
Allowance for Uncollectible Current Taxes. 30,000

Revenue.............................. 720,000

Allowance for Uncollectible Tax Liens.. 5,000
Revenue.................................. 1,000
Tax Liens Receivable......................... 6,000
c. Cash....................................... 702,000

Taxes Receivable--Current................... 702,000
d. Tax Liens Receivable..................... 34,000

Taxes Receivable--Delinquent
34,000
Allow for Uncollectible Delinquent Taxes 11,000 Allowance for Uncollectible Tax Liens.....

11,000
Taxes Receivable--Delinquent.......... 48,000 Taxes Receivable--Current.................... 48,000

Allow for Uncollectible Current Taxes... 30,000 Allow. for Uncollectible Delinquent Taxes. 30,000

```
DIF: M
OBJ: 5
```

8. The City of Franklin has adopted the General Fund budget for the next fiscal year. The details of the budget are:

Revenue and other financial sources:
Property taxes................................................. \$500,000
Fines................................................................. 5 50,000
State and federal grants.......................................... 75,000
Estimated receipt of funds from the closing of
the Municipal Swimming Pool, account for as an
Enterprise Fund.............................................. 15 ,000
Estimated receipt from Water Utility Fund to finance Expenditures (not in lieu of property taxes)........ 50,000

Expenditures and other uses:
Equipment purchases
General operations............................................... . . . 450 ,000
Estimated transfer to Debt Service fund to pay
interest on bond indebtedness
30,000

## Required:

Prepare journal entries to record the budget for the City of Franklin.

ANS:

| Estimated Revenues | 625,000 |  |
| :---: | :---: | :---: |
| Estimated Other Financing Sources | 65,000 |  |
| Appropriations |  | 600,000 |
| Estimated Other Financing Uses |  | 30, 000 |
| Budgetary Fund Balance. |  | 60,000 |

DIF: M OBJ: 6
9. The following transactions were made by the City of Morrell:

June 2, 20X5 Purchase orders of \$57,000 were approved.
June 17, 20X5 Goods of \$32,000 of the purch orders were received. These items are in good order. The invoices totaled \$29,000 and vouchers were approved for payment.

June 30, 20X5 Make entries for the City of Morell's year-end and the start of the next fiscal year on July 1, 20X5.

July 16, 20X5 The remaining items arrived in good order The invoices totaled $\$ 25,000$.

Required:
Make the necessary journal entries to record the transactions in the General Fund.

ANS:
June 2, 20X5 Encumbrances................ 57,000
Fund Balance-Reserved for Encumbrances 57,000

June 17, 20X5 Fund Balance--Reserved for Encumbrances...... 32,000
Encumbrances.............
32,000
Expenditures............... 29,000
Vouchers Payable........
29,000
June 30, 20X5 Fund Balance--Unreserved, Undesignated.......... 25,000
Encumbrances............ 25,000
July 1, 20X5 Encumbrances............... 25,000 Fund Balance--Unreserved, Undesignated

25, 000
July 16, 20X5 Fund Balance--Reserved for Encumbrances.......... 25,000
Encumbrances..............
25,000
Expenditures
25, 000
Vouchers Payable........
25, 000

DIF: M OBJ: 5
10. The following transactions were made by Cape City:

August 1, 20X9 A wealthy business person donates a downtown office building to Cape City. Its fair market value is $\$ 2,500,000$. The city intends to sell the building.

August 15, 20X9 The city purchases a warehouse to be used for storage and pays $\$ 1,500,000$ from the General Fund.

September 1, 20X9 The donated office building is sold for $\$ 2,600,000$.

Required:
Make the journal entries necessary to record the transactions in the General Fund and in the General Fixed Assets Account Group.

ANS:
General Fund:
August 1, 20X9 No entry required
August 15, 20X9 Expenditures................... 1,500,000 Cash............................

1,500,000
September 1, 20X9 Cash............................. 2, 600,000 Other Financing Source-Disposal of Asset........ 2,600,000

General Fixed Asset Account Group:
August 1, 20X9 Office Building............... 2,500,000 Investment in General Fixed Assets--Donations........ 2,500,000

August 15, 20X9 Warehouse...................... 1,500,000 Investment in General Fixed Assets--General Fund..... 1,500,000

September 1, 20X9 Investment in General Fixed Assets--Donations......... . 2,500,000 Office Building...........

DIF: M OBJ: 10
11. Lake City had the following transactions.

July 1, 20X9 Lake City levied \$500,000 in property taxes to be paid by its citizens before October 1, $20 \times 9$. Estimated uncollectibles are $1 \%$ of the taxes levied.

July 31, 20X9 During July, \$10,000 was collected for licenses and permits.

August 1, 20X9 Received a grant from the state government to pay for a drug enforcement officer for one year. The amount is $\$ 50,000$ and the officer is to begin on October 1, 20X9.

Required:
Make the necessary journal entries to record the transactions in the General Fund. Lake City has a June 30 year end.

ANS:

| July 1, 20X9 | Taxes Receivable--Current.... Revenues. Allowances for Uncollectible Taxes-Current. | 500, 000 | 495,000 5,000 |
| :---: | :---: | :---: | :---: |
| July 31, 20X9 | Cash. | 10,000 |  |
|  | Revenues. |  | 10,000 |
| August 1, 20X9 | Cash. | 50,000 |  |
|  | Revenues. |  | 37,500 |
|  | Deferred Revenues. |  | 12,500 |

DIF: M OBJ: 7
12. Using the information in Figure 15-1, prepare the June 30, 20X9, General Fund balance sheet for Gotham City.
Following is the year-end trial balance for the
General Fund of Gotham City.
Gotham City
General Fund Trial Balance
June $30,20 \times 9$

The Inventory of Supplies and Fund Balance--Reserved for Inventory of Supplies have been adjusted to reflect ending inventory. The beginning inventory balance was \$0. Fund Balance--Unreserved-Undesignated was \$5,000 before the adjustment.

## Figure 15-1

| ANS: <br> Gotham City <br> General Fund Balance Sheet <br> June 30, 20X9 |  |  |
| :---: | :---: | :---: |
|  |  |  |
| Assets |  |  |
| Cash. |  | \$230, 000 |
| Tax receivable--current | \$150, 000 |  |
| Less allowance for uncollectible current taxes. | 10,000 | 140,000 |
| Tax receivable--delinquent......... | \$ 25,000 |  |
| Less allowances for uncollectible delinquent taxes................ | 20,000 | 5,000 |
| Inventory of supplies. |  | $55,000$ |
|  |  | $\$ 430,000$ |
| Liabilities and Fund Equity |  |  |
| Liabilities: |  |  |
| Vouchers payable. | \$110,500 |  |
| Tax anticipation notes payable. | 100,000 |  |
|  |  | \$210, 500 |
| Fund Balances: |  |  |
| Reserved for encumbrances.... | \$125, 000 |  |
| Reserved for inventory of supplies. | 55,000 |  |
| Fund balance--unreserved-undesignated. | 39,500 | 219,500 |
|  |  | \$430,000 |
| DIF: D OBJ: 9 |  |  |

13. Using the information in Figure 15-1, prepare a Statement of Revenues, Expenditures, and Change in Fund Balance--Budget and Actual for the General Fund for Gotham City for the year end June 30, 20X9.


## Figure 15-1

ANS:
Gotham City
General Fund Statement of Revenues, Expenditures, and Change in Fund Balance - Budget to Actual For the Fiscal Year Ended June 30, 20X9

|  | Budget | Actual | Variance-Favorable (Unfavorable) |
| :---: | :---: | :---: | :---: |
| Revenues | \$2,450,000 | \$2,455,000 | \$ 5,000 |
| Expenditures | 2,300,000 | 2,255,000 | 45,000 |
| Excess of revenues over expenditures | \$ 150,000 | \$ 200,000 | \$50, 000 |
| Other financing sources (uses) | 14,000 | 14,500 | 500 |
| Excess of revenues and other sources over expenditures and other uses. | \$ 164,000 | \$ 214,500 | \$50,500 |
| Fund balance July 1, 20X8. | 5,000 | 5,000 | 0 |
| Fund balance June 30, 20X9 | \$ 169,000 | \$ 219,500 | \$50,500 |

14. Using the information in Figure 15-1, prepare the closing entries for the General Fund of Gotham City on June 30, 20X9.


The Inventory of Supplies and Fund Balance--Reserved for Inventory of Supplies have been adjusted to reflect ending inventory. The beginning inventory balance was \$0. Fund Balance--Unreserved-Undesignated was $\$ 5,000$ before the adjustment.

Figure 15-1
ANS:

| Appropriations | 2,300, 000 |  |
| :---: | :---: | :---: |
| Estimated Other Financing Uses | 96,000 |  |
| Budget Fund Balance--Unreserved | 164,000 |  |
| Estimated Revenue |  | 2,450,000 |
| Estimated Other Financing Sources |  | 110, 000 |
| Revenues | 2,455,000 |  |
| Other Financing Sources | 110, 000 |  |
| Expenditures. |  | 2,255,000 |
| Other Financing Uses |  | 95,500 |
| Encumbrances |  | 125,000 |
| Fund Balance-Unreserved U |  | 89,500 |

15. Following is a list of selected transactions for the City of Alpena:
a. The city used general property taxes to purchase a computer for the police department. The cost of the computer was $\$ 30,000$. It was not encumbered.
b. Joseph Green donated land and a building to the city with book values of \$25,000 and \$150,000, respectively. When the gift was made, the appraisal values were $\$ 35,000$ for the land and \$135,000 for the building.
c. The city sold an old police car originally purchased by the General Fund for $\$ 10,000$. The selling price was $\$ 2,500$.

Required:
Make the necessary journal entries in the funds and account groups affected.

ANS :
a. General Fund
Expenditures............ 30,000
Vouchers Payable....... 30,000
GFAAG
Equipment................. 30,000
Investment in General Fixed Assets-General Fund
30, 000
b. GFAAG
Land..................... 35 , 000
Building................. 135,000
Investment in General
Fixed Assets--
Donation............ 170,000
c. General Fund
Cash..................... 2, 500
Other Financing
Source--Disposal of Asset 2,500
GFAAG Investment in General
Fixed Assets--General Fund 10,000
Equipment.............. 10,000

DIF: M OBJ: 7, 10
16. Following is a list of selected transactions for the City of Andrew:
a. The city issued \$750,000 in term bonds. The bonds sold at 102.
b. After the payment of interest, the city transferred \$100,000 from the General Fund to retire serial bonds.
c. The bonds in b are retired.

Required:
Make the necessary journal entries in the funds and account groups affected except the Debt Service Fund.

ANS:
a. General Fund

Cash....................... 765,000
Other Financing Source--Bond Proceeds 765,000

General
Amount to Be Provided

Long-term Debt Account Group
b. General Fund

GLTDAG
c. GLTDAG

| for Payment of Term Bonds. | 750,000 |  |
| :---: | :---: | :---: |
| Term Bonds |  | 750, 000 |
| Other Financing Use. | 100, 000 |  |
| Cash. |  | 100, 000 |

Amount Available in Debt Service Fund--Serial Bonds.............. 100, 000
Amount to Be Provided for Payment of Serial Bonds.

100, 000
Serial Bonds Payable.... 100,000
Amount Available in Debt Service Funds-Serial Bonds

100, 000

DIF: D
OBJ: 7, 10
17. The following activities took place in the city of Littlewood during 20x2. Make the necessary journal entries to account for these transactions, including the year end closing entry. Littlewood does not utilize an encumbrance system.
a. The budget for $20 \times 2$ was approved. Estimated Revenues Estimated Other Financing Sources
\$1, 300, 000
50,000
Estimated Operating Expenditures
800, 000
Estimated Equipment Purchases
100, 000 Estimated Other Financing Uses

10, 000
b. The general tax levy for $20 x 2$ was $\$ 1,000,000$ with a $5 \%$ estimate of uncollectibles. The remaining balance from the 2001 fiscal year was $\$ 75,000$ in Taxes Receivable-Current with and Allowance of \$20, 000 .
c. Equipment was purchased that was invoiced at $\$ 93,500$.
d. Invoices were received for operating expenditures in the amount of \$805,000 and vouchered.
e. Payment was made on items 'c' and 'd' above.
f. Collections of $\$ 895,000$ on current taxes and $\$ 5,000$ on Delinquent taxes were received. A state grant was received in the amount of \$250, 000 .
g. Fines and fees are collected in the amount of $\$ 85,000$.
h. The Water Utility, an Enterprise fund of the city, will pay $\$ 50,000$ for city services that are not covered by property taxes.
i. The city will pay the motor pool fund, an internal service fund, \$10,000 for insurance costs on municipal vehicles.

ANS:
a. Estimated Revenues

Estimated Other Financing Sources Appropriations Estimated Other Financing Uses Budgeted Fund Balance

900, 000
10, 000
340, 000
75, 000
20, 000
Allowance for Uncollectible-Current Tax Receivable - Current 75,000
Allowance for Uncollectible-Delinquent 20,000
Tax Receivable - Current 1,000,000
Allowance for Uncollectible-Current
50, 000
Revenue
950, 000
c. Expenditure

Vouchers Payable 93,500
**an entry may also be made in a general fixed asset account group
d. Expenditures

805, 000
Vouchers Payable
805,000
e. Vouchers Payable 898,500

Cash
898,500
f. Cash

Tax Receivable - Current
900, 000
Tax Receivable - Delinquent
Cash
Revenue
g. Cash

Revenue
h. Due from Enterprise Fund-

Water Utility 50,000
Revenue
i. Expenditure

Due to Internal Service Fund
CLOSING ENTRY

| Appropriations | 900,000 |  |
| :--- | ---: | ---: |
| Estimated Other Financing Uses | 10,000 |  |
| Budgeted Fund Balance | 340,000 |  |
| Estimated Revenue |  | $1,300,000$ |
| Estimated Other Financing Sources |  | 50,000 |

Revenue
Other Financing Sources
1,335,000
50, 000

| Expenditures | 898,500 |
| :--- | ---: |
| Other Financing Uses | 10,000 |
| Fund Balance Unreserved | 476,500 |

DIF: D OBJ: 7
18. On July 1, 20X0, the beginning of its fiscal year, the trial balance of the General Fund of the City of St. Bea was as follows:

| Cash | 20,000 |  |
| :---: | :---: | :---: |
| Tax Receivable--Delinquent | 120, 000 |  |
| Allowances for Uncollectible Delinquent |  |  |
| Taxes |  | 12,000 |
| Interest and Penalties Receivable on |  |  |
| Taxes. | 8,000 |  |
| Allowance for Uncollectible Interest and Penalties. |  | 800 |
| Due from Other Funds | 28,000 |  |
| Vouchers Payable |  | 87,200 |
| Fund Balance Reserved for Encumbrances |  | 16,000 |
| Fund Balance--Unreserved, Undesignated. |  | 60,000 |
|  | 176,000 | 176,000 |

## Required:

Prepare journal entries that would be made in the General Fund for the following events. Omit explanations.
a. The budget shows estimated General Fund revenues of $\$ 450,000$ and estimated expenditures (including amount encumbered in the prior year) of \$392,000.
b. Late in June 20X0, an order was placed and an encumbrance recorded for $\$ 16,000$. Later in July, the item was received at an invoice cost of $\$ 16,400$. A voucher is prepared.
c. Property taxes amounting to $\$ 300,000$ were levied, with $4 \%$ estimated to be uncollectible.
d. Cash collections during the year were as follows:

| Current taxes | \$270, 000 |
| :---: | :---: |
| Delinquent taxes (in full settlement) | 104, 000 |
| Interest and penalties on last year's |  |
| taxes (in full settlement) | 7,600 |
| Due from other funds | 28,000 |
|  | \$409,600 |

The controller wishes variations in estimates to be recorded in the appropriate revenue or expenditure account.
e. Purchase orders totaling $\$ 276,000$ were placed. Later, invoices for $\$ 260,000$ were received and vouchered; supplies inventory purchases were $\$ 16,000$ of the total. The
f. Payrolls of $\$ 50,000$ were paid. (Ignore payroll taxes and other deductions.) In addition, vouchers totaling \$280,000 were paid. (Supplies Inventory purchases were $\$ 16,000$ of the total.)
g. An automobile was purchased for the fire department. It cost $\$ 16,000$ and was not previously encumbered. The invoice is vouchered.
h. At year end, \$6,000 in supplies were on hand. There were no supplies on hand a year ago. The city wishes to show the inventory and to establish a proper reserve.

ANS:
a. Estimated Revenues 450,000

Appropriations
392,000
Budgetary Fund Balance--Unreserved
58,000 To record budget.
b. Encumbrances ................ 16,000

Fund Balance--Unreserved, Undesignated. 16,000
To reinstate encumbrance.
Expenditures ................... 16,400
Vouchers Payable.
16,400
To record voucher.
Fund Balance--Reserved for Encumbrances. 16,000
Encumbrances
16,000
To reverse encumbrance entry.
c. Taxes Receivable--Current............. 300,000

Allowance for Uncollectible Current Taxes (4\%)

12,000
Revenues .......................... 288,000
To record tax levy.
d. Cash

409, 600
Allowance for Uncollectible Delinquent Taxes.

12,000
Allowance for Uncollectible Interest and Penalties............. 800
Revenues $\quad . . . . . . . . . . . . . . . . .$. 3, 600
Taxes Receivable--Current............ 270,000
Taxes Receivable--Delinquent........ 120,000
Interest and Penalties Receivable
on Taxes.
8,000
Due from Other Funds.................. 28,000
To record receipts.
e. Encumbrances ..... 276, 000Fund Balance--Reserved for Encumbrances........ 276,000To record encumbrances.
Supplies Inventory 16, 000
Expenditures . ..... 244,000Vouchers PayableTo record vouchers.
Budgetary Fund Balance--
Reserved for Encumbrances ..... 254, 000
Encumbrances254, 000To record encumbrance entry.
f. Expenditures ..... 50, 000
Vouchers Payable ..... 280, 000
Cash. ..... 330, 000To record payments.
g. Expenditures ..... 16,000
Vouchers Payable ..... 16,000To record voucher for automobile.
h. Expenditures ..... 10, 000Inventory of SuppliesTo record use of inventory.
Fund Balance--Unreserved, Undesignated ..... 6,000
Fund Balance--Reserved for Inventoryof Supplies6,000To establish desired reserve.DIF: DOBJ: 719. The pre-closing trial balance of the General Fund of Volter Village atthe end of its fiscal year, June 30, 20X1, is as follows:

| Cash. | 19,800 |  |
| :---: | :---: | :---: |
| Tax Receivable--Delinquent | 40, 000 |  |
| Allowance for Uncollectible Delinquent |  |  |
| Taxes |  | 8,400 |
| Vouchers Payable |  | 19,000 |
| Fund Balance--Reserved for Encumbrances |  | 22,000 |
| Fund Balance--Unreserved, Undesignated. |  | 46,000 |
| Revenues |  | 201, 600 |
| Expenditures | 215,200 |  |
| Encumbrances | 22,000 |  |
| Estimated Revenues | 200,000 |  |
| Appropriations |  | 196,000 |
| Budgetary Fund Balance--Unreserved |  | 4,000 |
|  | 497,000 | 497,000 |

Required:
a. Prepare closing entries.
b. Prepare a statement of revenues, expenditures, and changes in fund balances for the General Fund for the year ended June 30, 20X1.
c. Prepare the General Fund balance sheet as of June 30, 20X1.

ANS:

b.
Volter Village
General Fund
Statement of Revenues, Expenditures, and
Changes in Fund Balances
For the Fiscal Year Ended June 30, 20x1

| Revenues | \$201, 600 |
| :---: | :---: |
| Expenditures | 215,200 |
| Excess of revenues over expe | \$(13, 600$)$ |
| Fund balances, July 1, 20X0. | 46,000 |
| Fund balances, June 30, 20X1 | \$ 32,400 |


| C.Volter Village <br> General Fund Balance <br> June 30, 20X1 |
| :---: | :---: |

Assets


DIF: D OBJ: 9
20. Consider the following events:
a. The General Fund vouchered the purchase of trucks for $\$ 65,000$. The purchase had been encumbered earlier in the year at \$60, 000 .
b. Several years ago, equipment costing $\$ 15,000$ was acquired with General Fund Revenues. It was sold for $\$ 5,000$, with proceeds belonging to the General Fund.
c. Early in the year, a citizen donated land appraised at \$100,000 to the city. She submitted plans for a new library and agreed to cover the total cost of construction, paying the company directly as work proceeds. At year end, the building was two-thirds finished, with costs to date of $\$ 300,000$.
d. A snow plow was purchased with General Fund cash for $\$ 48,000$, which represented a cost of $\$ 61,000$ less trade-in of $\$ 13,000$ for an old snow plow originally purchased for $\$ 35,000$ from Special Revenue Funds. As an emergency purchase, the acquisition of the new snow plow had not been encumbered.

Required:
Prepare journal entries to record the events using the General Fund and the General Fixed Assets Account Group:

ANS:

Entry in
General Fund
a. Expenditures

Voucher ${ }^{\prime}$... 65,000
Voucher
Payable.... 65,000
To record voucher.

Fund Balances
Reserved for
Encumbrances... 60,000
Encumbrances.
60, 000
To reverse encumbrance.
b. Cash

Other Financing
Sources 5,000
To record proceeds
from equipment sale.
c. No entry.
d. Expenditures

Cash.......... 48,000 48,000
To record payment for snow plow.

| Entry in General Fixed |
| :--- |
| Assets Account Group |
| Machinery and |
| Equipment....... 65,000 |
| Investment in |
| General Fixed |
| Assets--General |
| Fund......... |
| To record purchase. 65,000 |

Investment in

General Fixed

Assets--General

Fund............ 15,000

Machinery and

Equipment...... 15,000

To remove equipment sold.

Land......... 100, 000
Investment in
General Fixed
Assets--Donations 100,000
To record donated land.
Construction in
Process........ 300,000
Investment in
General Fixed
Assets--
Donations.... 300,000
To record partially finished donated building.

Investment in
General Fixed
Assets--Special
Revenue Fund..... 35,000
Machinery and
Equipment..... 35,000
To remove traded snow plow.
Machinery and
Equipment........ 61, 000
Investment in
General Fixed
Assets--General
Fund......... 61,000
To record new snow plow acquired.

DIF: M OBJ: 7, 10
21. The following transactions occurred in the City of Maineville during 20X1:
a. General obligation term bonds with a face value of $\$ 2,500,000$ were sold for $\$ 2,550,000$. The proceeds from the bond issue were to be used to construct a new library and were received by the Capital Projects Fund.
b. \$200,000 was transferred from the General Fund to the Debt Service Fund to begin saving for the retirement of the bonds in transaction a. at maturity.
c. \$150, 000 was transferred from the General Fund to the Debt Service Fund to retire a portion of a serial bond due in 20X1.
d. A police car was purchased for $\$ 18,000$ and the trade-in of an old police car originally purchased for \$15,000 from the General Fund. The new vehicle had a list price and fair market value of $\$ 21,500$.
e. The serial bonds funded in transaction $c$. were retired on their maturity date.
f. By year end, $\$ 450,000$ of the work had been completed on the new library.

Required:
Prepare the necessary journal entries to record the transactions and identify the fund or account group in which it would be recorded. Entries in the Debt Service and Capital Projects Funds should be ignored.

ANS:

Entry $\quad$| Fund or |
| :---: |
| Group |

a. Amount to Be

Provided for
Payment of
Term Bonds....... 2,500,000 GLTDAG
Term Bonds...... 2,500,000
b. Other Financing

Uses............. 200,000
General
Cash............
Amount Available..
in Debt Service
Funds-Term
Bonds...........
200, 000
GLTDAG
Amount to Be Provided for Payment of Term Bonds..... 200,000

22. Which fund and/or account group would account for the following activities?
a. property taxes
b. purchase a fire truck
c. order some general supplies
d. build a city hall
e. pay principal and interest on long-term debt
f. issue long-term debt to build the city hall
g. pay the current portion of pension liability

ANS :
a. general fund
b. general fund and general fixed asset account group
c. general fund
d. capital projects fund and general fixed asset account group
e. general fund, debt service fund, and general long-term debt
account group
f. capital projects fund and general long-term debt account group
g. general fund

DIF: E
OBJ: 5

## Chapter 16 - Governmental Accounting: Other Governmental Funds, Proprietary Funds, and Fiduciary Funds

## MULTIPLE CHOICE

1. Capital improvements which are financed by special assessment debt for which the government is obligated in some manner would be recorded in the General Fixed Assets Account Group as a(n)
a. debit to Expenditures.
b. debit to Assets for the portion owned by the government.
c. investment in General Fixed Assets--Capital Project Funds.
d. Bonds Payable.

ANS: B DIF: E OBJ: 1
2. Which of the following activities would NOT be accounted for in a Special Revenue Fund?
a. hotel taxes restricted for tourism expenditures
b. lottery proceeds restricted for property tax relief
c. interest earned on temporary investments of long term bond proceeds
d. park fees restricted to cover a small portion of park upkeep and maintenance

ANS: C DIF: E OBJ: 1
3. Which of the following fund types have accounting principles most closely related to those of the General Fund?
a. Pension Trust
b. Enterprise
c. Agency
d. Special Revenues

ANS: D DIF: M OBJ: 1
4. When a city pays its water and sewer bill for its administration offices to the city owned water company, the following entry would be made
a. Credit to Revenue in the Utility Fund
b. Debit to Revenues in the General Fund
c. Credit to Expenditures in the General Fund
d. Debit Administrative Expense in the General Fund

ANS: A DIF: M OBJ: 1
5. Debt Service funds account for
a. revenue bonds.
b. payment of principal and interest on general obligation debt.
c. arbitrage.
d. monies irrevocably set aside for an in-substance defeasance.

ANS: B DIF: E OBJ: 1
6. Capital projects expected to take several years to complete and involve large amounts of money
a. operate under an annual budget, including expected revenues and estimated expenditures for the current fiscal year.
b. operate under an annual budget, including expected revenues and estimated expenditures for the entire project life.
c. budget for estimated expenditures only and only for the current fiscal period.
d. do not utilize any annual budgeting entries.

ANS: A
DIF: M
OBJ: 1
7. On December 1, $\$ 125,000$ was deposited with a fiscal agent for payment on bonds payable in the amount of $\$ 90,000$ and interest payable for $\$ 35,000$ due maturing on the last day of December. This will require a debit of
a. \$125,000 to the Expenditure account in the General Fund.
b. $\$ 35,000$ to the Expenditure account in the General Fund.
c. \$125,000 to the Other Financing Uses--Operating Transfers Out account in the General Fund.
d. $\$ 35,000$ to the Expenditure account in the Debt Service Fund.

ANS: C DIF: D OBJ: 1
8. Permanent Funds are established to
a. account for general operating activities
b. account for public purpose trust for which only the earnings are expendable for a specific purpose
c. record earnings and principal expended for public purpose trusts for specific purposes
d. account for private purpose trusts

ANS: B DIF: E OBJ: 1
9. The basis of accounting for the Expendable Trust Fund is the
a. accrual basis.
b. cash basis.
c. modified accrual basis.
d. modified cash basis.

ANS: C
DIF: E
OBJ: 2
10. Which of the following is an expenditure in the Debt Service Fund? a. The payment of principal of a matured bond accounted for in the General Long-Term Debt Account Group
b. Payment of principal or interest on special assessment debt for which the government is obligated in some manner
c. Transfers to fiscal agents for payment of bond interest
d. All of these are expenditures in the Debt Service Fund.

ANS: D
DIF: M
OBJ: 1
11. Utilizing serial bonds to raise long term resources is preferred in debt service funds because:
a. the face value becomes due at one time at a more distant maturity date.
b. serial bonds do not require a substantial accumulation of money in a sinking fund.
c. it assists in the budgeting process.
d. the primary function is to account for fixed asset acquisitions.

ANS: B DIF: M OBJ: 1
12. An enterprise fund should be used to account for
a. a free city-run swimming pool paid for with property tax.
b. a city-run water utility serving the general public.
c. any activity which the city plans to sell to external users for a fee either now or in the future.
d. Both $b$ and $c$ are correct.

ANS: D DIF: E OBJ: 1
13. A quasi-external transaction such as the sale of power by the city utility fund to the general fund should be accounted for as
a. Expenditure in the General Fund.
b. Operating Revenue in the Utility Fund.
c. if the transaction had occurred with an external party.
d. all of the above

ANS: D
DIF: M
OBJ: 1
14. Which of the following is not a typical year-end statement for an Enterprise Fund?
a. Balance sheet
b. Statement of Revenue, Expenses and Changes in Retained Earnings
c. Statement of cash flows
d. All of these financial statements would be used at year end by an Enterprise Fund.

ANS: D DIF: E OBJ: 2
15. The activities of a central motor pool that supplies and services vehicles for the use of municipal employees on official business should be accounted for in $a(n)$ ?
a. General Fund
b. Agency Fund
c. Internal Service Fund
d. Special Revenue Fund

ANS: C DIF: M OBJ: 2
16. If a county collects taxes on behalf of the city and school district, it would record the taxes in the
a. General Fund.
b. Special Revenue Fund.
c. Agency Fund.
d. Trust Fund.

ANS: C
DIF: E
OBJ: 4
17. The best fund in which to account for the interest and dividends from an endowment to purchase library books for a city would be $a(n)$
a. Expendable Trust Fund.
b. Agency Fund.
c. Endowment Fund.
d. Nonexpendable Trust Fund.

ANS: A
DIF: M
OBJ: 3
18. A redemption of the final serial of general obligation bonds, including a deficiency covered by the general fund, would affect which funds and/or account groups?
a. General, Debt Service, General Long Term Debt Account Group
b. Debt Service, General Long Term Debt Account Group, Agency Fund
c. General, Debt Service
d. General, Debt Service, General Long Term Debt Account Group, Capital Projects

ANS: A DIF: M OBJ: 1,4
19. The Single Audit Act requires that a governmental unit have a single audit if they
a. receive any Federal Funds even on a pass-through basis.
b. are not in compliance with the Federal grant conditions.
c. receive more than $\$ 300,000$ in Federal funds annually.
d. only receive one Federal grant.

ANS: C DIF: E OBJ: 1
20. Interfund transactions include all of the following except for:
a. one fund's reimbursement of another for supplies paid on its behalf
b. interfund operating transfers between government funds for services provided and used and recorded as other financing sources and uses
c. interfund loan transfers classified as Due to/from other Funds
d. interfund non-reciprocal transfers between government funds recorded as interfund transfers appearing after non-operating revenues

ANS: D
DIF: M
OBJ: 4
21. If general obligation debt is refunded to lower the interest rate and the proceeds are irrevocably placed with an escrow agent or trustee to pay off the old debt as it comes due, the government must
a. provide a general description of the transaction in the newspaper.
b. calculate the economic gain or Balance-Employer Contributions.
c. adjust the GLTDAG for the increase or decrease in the amount of
long-term debt
d. Both b and c are correct.

ANS: C DIF: M OBJ: 4
22. Which of the following terms best describes the accounting methods used to account for a city's Pension Trust Fund?
a. Cash basis
b. Modified cash basis
c. Accrual basis
d. Modified accrual basis

ANS: C DIF: E OBJ: 3
23. The main difference between an agency fund and a trust fund is:
a. an agency fund usually does not have end of period balances
b. agency funds account for assets invested to produce earnings for a designated purpose
c. agency funds account for assets, liabilities, and changes in net assets of external participants in an investment pool
d. agency funds account for contributions to retirement plans

ANS: B DIF: E OBJ: 3
24. A government may decide to do an advance refunding of long-term debt to remove legal impairments or lower the effective interest rate. If the refunding does not pay off the old debt, but simply sets aside monies irrevocably with a trustee to pay it as it comes due, it is a(n)
a. duplicate borrowing.
b. in-substance defeasance.
c. transaction to only disclose in the footnotes.
d. trust to record in the nonexpendable trust fund.

ANS: B DIF: D OBJ: 3
25. Which of the following funds or account groups would be affected by a transfer of property tax receipts to pay bond principal and interest payments? The bonds were issued several years ago to fund the construction of a new library.
a. Capital Project Fund
b. Library Fund
c. Debt Service Fund
d. General Fixed Asset Account Group
ANS: C
DIF: E
OBJ: 1
26. Which of the following funds would use the flow of financial resources as its measurement focus?
a. General Fund
b. Agency Fund
c. Internal Service Fund
d. Nonexpendable Trust Fund

ANS: A
DIF: E
OBJ: 4
27. When a city plans to build a fire station by issuing long-term debt, it could obtain money to start construction before the bonds are sold by a. selling old fire trucks.
b. borrowing from the pension trust fund.
c. issuing Bond Anticipation Notes.
d. issuing Tax Anticipation Notes.

ANS: C DIF: M OBJ: 1
28. In the Comprehensive Annual Financial Report (CAFR) of a governmental unit, the account groups are included in
a. both the combined balance sheet and the combined statement of revenues, expenditures, and changes in fund balances.
b. the combined statement of revenues, expenditures, and changes in fund balances, but NOT the combined balance sheet.
c. the combined balance sheet but NOT the combined statement of revenues, expenditures, and changes in fund balances.
d. neither the combined balance sheet nor the combined statement of revenues, expenditures, and changes in fund balances.

ANS: C DIF: D OBJ: 1

## PROBLEM

1. The following summary events are for the Village of Carsonville:
a. The annual budget for the Special Revenue fund was adopted as follows:

Estimated Revenues.................................... . . $\$ 170$,000
Appropriations......................................
b. The state transfers $\$ 160,000$ to the city for its current year's share of gasoline tax.
c. $\$ 148,000$ was spent on road repairs and maintenance during the year.
d. Closing entries are made for the year.

## Required:

Prepare the journal entries necessary to record these events in the Special Revenue Fund. The fund was established to record the city's share of state gasoline tax, which is used for street maintenance.

ANS:

| a. Estimated Revenues. | 170,000 |  |
| :---: | :---: | :---: |
| Appropriations |  | 150, 000 |
| Budgetary Fund Balance |  | 20,000 |
| b. Cash. | 160, 000 |  |
| Revenue |  | 160,000 |
| c. Expenditures | 148,000 |  |
| Cash. |  | 148,000 |
| d. Appropriations. | 150,000 |  |
| Budgetary Fund Balance | 20,000 |  |
| Estimated Revenues. |  | 170,000 |
| Revenue. | 160, 000 |  |
| Expenditures. |  | 148,000 |
| Fund Balance--Unreserved, Undesignated |  | 12,000 |

DIF: M OBJ: 4
2. On July 1, 20X5, Rhodes City approved the construction of a new library costing $\$ 8,000,000$. The project was to be financed with a $\$ 4,000,000$ general obligation bond issue and a matching state grant.

Required:
Record the following events in the Capital Project Fund for Rhodes City during 20X5.
a. The city estimated that approximately one-fourth of the contract price would be paid for in the current fiscal year and that the bond issue will be sold this year. The project should be completed and the matching grant received next year.
b. The bonds are sold at 102 and premium to be used for future principal payment, forwarded to the Debt Service Fund.
c. A contract was signed to construct the library at a cost of $\$ 7,900,000$ with a retained percentage of $10 \%$ until final inspection at completion.
d. The contractor submits a $\$ 1,000,000$ progress billing.
e. The books are closed at year end.

ANS:
a. Memorandum entry only to record authorization to expend $\$ 8,000,000$ for construction of the library. Budget entry is optional:

Estimated Other Financing Sources........... 4,000,000
Appropriations.................................... 2,000,000
Budgetary Fund Balance....................... 2,000,000
b. Cash................................................ . 4,080,000

Other Financing Sources--Bond Proceeds.... 4,080,000
Other Financing Uses--Operating Transfer Out 80,000
Cash.............................................. 80,000
c. Encumbrances...................................... . 7, 900,000

Fund Balance-Reserved for Encumbrances.... 7,900,000
d. Expenditures......................................... 1, 000,000

Contracts Payable................................ 900,000
Contracts Payable--Retained Percentage..... 100,000
Fund Balance--Reserved for Encumbrances..... 1,000,000
Encumbrances.....................................
1,000,000
e. Other Financing Sources--Bond Proceeds...... 4,080,000

Unreserved--undesignated Fund Balance....... 3,900,000 Expenditures..................................... $1,000,000$ Encumbrances.........................................

6,900, 000 Other Financing Uses--Operating Transfer Out 80,000

DIF: M OBJ: 4
3. On 1-1-01, the City of Midville received $\$ 100,000$ from a citizen, who specifies the principal amount should remain intact. Earnings on the principal are to be used for park beautification projects and upkeep.

## Required:

Record the following events in the appropriate Permanent Fund and Special Revenue Fund, as necessary.
a. The deposit is made of the cash received.
b. The cash is invested in marketable securities.
c. Total interest accrued on investments for the year is \$8,000; A liability is established in the permanent fund for what is owed to special revenue fund.
d. The interest is collected and transferred to the appropriate special revenue fund.
e. Park Operating expenses are $\$ 2,500$ and $\$ 5,500$ is spent on new park benches.
Required:
Using this information, make the necessary entries in all other affected funds or groups and identify the fund for each event. If no other fund or group is affected, so note. Closing entries are not required.
ANS:
a. Permanent Fund:

b. Permanent Fund:
Investments.............................. 100,000
Cash
100, 000
c. Permanent Fund:
Interest Receivable...................... 8,000
Operating Revenues................. 8,000
Operating Transfer Out................... 8,000
Due to Special Revenue Fund....... 8,000
Special Revenue Fund:
Due from Permanent Fund.................. 8,000 Other Financing Sources -Operating
Transfer In.................. 8,000
d. Permanent Fund:

e. Special Revenue Fund:
Expenditures.................................. 8, 8,000
Cash................................ 8, 000
DIF: D
OBJ: 4
4. The following events occurred in the City of Boonebury during 20X5.
a. On January 1, the city sells $\$ 600,000$ of general obligation bonds at 101. The premium is to be used to pay interest. The bonds have a $6 \%$ stated interest rate and mature in 20XX. Interest is payable on July 1 and January 1.
b. On June, enough cash is transferred from the General Fund to service the bonds described in a.
c. A check is written to the fiscal agent handling the bonds on June 30.
d. Notification is received from the fiscal agent on August 1 that interest has been paid to the bondholders.
e. On September 30, enough cash is transferred from the General Fund to retire $\$ 150,000$ of a serial bond issue plus $\$ 3,000$ of interest. The cash is immediately forwarded to the fiscal agent.

## Required:

Prepare the journal entries necessary to record the events in the Debt Service Fund. The City of Boonebury is a calendar-year city.

ANS:
a. January 1, 20X5

b. June 30, 20X5


Cash.................................... 12,000
Other Financial Sources............. 12,000
c. June 30,20X5

Cash with Fiscal Agent................ 18,000 Cash.

18,000
d. August 1, 20X5

Matured Interest Payable................ 18,000
Cash with Fiscal Agent
18,000
e. September 30, 20X5

Expenditures............................. 153,000 Matured Interest Payable............. 3,000 Matured Bonds Payable 150, 000

Cash
153, 000 Other Financial Sources 153, 000

Cash with Fiscal Agent................ 153,000 Cash.

153,000

DIF: M OBJ: 4
5. The City of Newport operates its own solid waste landfill and charges fees to users who dump solid waste in the landfill. When should estimated costs for closure and postclosure care be accounted for?

ANS:

The City of Newport must begin recognizing an expense and a liability in each period that the landfill is operated for a pro rata share of closure and postclosure care. The estimated closure and postclosure costs are allocated across the years that the landfill operates based upon cumulative capacity used during each period of the estimated expected usable landfill area. Estimated closure and postclosure costs should also be adjusted each year for the effects of inflation or deflation. The reason GASB requires that this expense and liability be recorded is to ensure that the governmental units operating a solid waste landfill begin to recognize the liability for closure and postclosure costs during its operation and begin to fund or plan for funding these costs.

DIF: E OBJ: 2
6. The City of Warwick authorized a project to modernize its street lighting.
a. The project will take approximately nine months to complete and will cost $\$ 290,000$. The project will be financed by a \$60,000 grant from the federal government and a \$15,000 transfer from the General Fund. In addition, the city will issue $\$ 125,000$ of special assessment serial bonds. Special assessments of $\$ 180,000$, to be collected in two equal installments due November 1 each year, will be levied. The first installment is to go directly to the Capital Projects Fund. The remaining installment will be used to repay the related bond issue. The city desires that budgetary accounts be established for the project.
b. A construction contract for $\$ 265,000$ is signed. The amount is encumbered.
c. The installment assessments of \$180,000 are levied.
d. All but $\$ 1,000$ of the first installment is collected.
e. Serial bonds are sold at a face value of $\$ 125,000$ on an interest payment date.
f. The transfer from the General Fund and the grant from the federal government are received.

Required:
Prepare journal entries in a Capital Projects Fund for the above events:

ANS:
a. Estimated Revenues ..... 150,000
Estimated Other Financing Sources ..... 140,000Appropriations............................. . . . .290, 000
Estimated Revenues:
Installment ..... \$ 90,000
Federal Grant ..... 60, 000Total...................... \$150,000
(Alternatively, this can be recorded as a memorandum entry.)
b. Encumbrances.................................. 265,000 Encumbrances
========

Budgetary Fund Balance--Reserved forEncumbrances265,000Enind
c. Special Assessments Receivable--Current. ..... 90,000RevenuesTo record initial installment.(The remainder of the assessment isrecorded in the Debt Service Fund.)
d. Cash ..... 89, 000Special Assessments Receivable--Current125,000Other Financing Sources
125,000
f. Cash ..... 75, 000
Revenues. ..... 60,000Other Financing Sources15,000
7. Rankin City established a Central Printing and Reproductions Fund during the fiscal year ending 6/30/05. Transactions affecting the fund are as follows:
a. The fund was established with a $\$ 100,000$ contribution from the General Fund on 7/1/04. The transfer will be recorded as Contributed Capital for the fund. The operation is conducted in a facility leased on a month to month basis from a private landlord.
b. Equipment costing $\$ 30,000$ was acquired on $7 / 3 / 04$. The equipment is assigned a 10 year life, no salvage. It will be paid at a future date.
c. Supplies costing $\$ 65,000$ were acquired. A physical inventory taken on 6/30/05 of the supplies and valued at \$11,000. The voucher will be paid at a later date.
d. Various operating expenses were incurred for a total of $\$ 67,000$. Of that amount, $\$ 7,000$ represented charges from the city's electric utility. (an enterprise fund)All the vouchers were then paid. The payments for the equipment and supplies acquisition are also made.
e. Total billings to the city's various departments were \$125,000. Of this amount, \$9,000 pertained to services performed for the city's electric utility (enterprise fund).
f. Cash was collected on the above billings in full.

## Required:

Make the necessary journal entries for fiscal year 2004-2005 (ending 6/30/05) for Rankin City's Internal Service Fund including any year end adjusting entries. Closing entries are not required.

ANS:

| a. Cash. | 100, 000 |  |
| :---: | :---: | :---: |
| Contributed Capital-General Fund |  | 100,000 |
| b. Equipment | 30,000 |  |
| Vouchers Payable |  | 30,000 |
| c. Supplies Inventory. | 65,000 |  |
| Vouchers Payable. |  | 65,000 |
| d. Operating Expenses | 67,000 |  |
| Vouchers Payable |  | 60,000 |
| Due to Electric Utility Fund |  | 7,000 |
| Vouchers Payable. | 155,000 |  |
| Due to Electric Utility Fund | 7,000 |  |
| Cash. |  | 162,000 |
| e. Due from the General Fund. | 116,000 |  |
| Due from Electric Utility Fund | 9,000 |  |
| Operating Revenues. |  | 125,000 |


8. Consider the following events:
a. A portion of the property tax levied was directly earmarked for, and previously recorded in, the Debt Service fund. Of these property taxes, \$6,600 was previously reclassified as delinquent. From the delinquent taxes, \$5,000 is now collected, with the balance considered uncollectible. An allowance for uncollectible delinquent of $\$ 2,000$ existed.
b. Previously deferred property taxes amounting to $\$ 50,000$ will be subjected to collection during the current year. A 4\% allowance is to be created to cover uncollectible amounts.
c. The state has remitted $\$ 45,000$ as the municipality's portion of a shared sales tax. No receivable had previously been recorded. The amount is to be used for debt service and is to be recorded directly in that fund.
d. The General Fund transferred \$80,000 to the Debt Service Fund, \$70,000 for serial bond principal retirement, and \$10,000 for interest payment.
e. A check for $\$ 110,000$ is sent by the Debt Service Fund to the fiscal agent who handles the principal and interest payments. The amount covers \$70,000 for matured bond principal and \$40,000 for interest due.
f. The fiscal agent later reports that all payments for matured principal and interest mentioned in item e above have been made.

## Required:

Prepare the journal entries that would be made in a municipality's Debt Service Fund for each of the following events:

ANS:


DIF: D OBJ: 4
9. The following are selected activities for the Monterey City Natural Gas Company, a governmental entity:
a. Billing for the year:

To outside customers...................... \$400,000
To other Monterey City funds............. 70,000
b. Service provided to outside customers but not billed by year end totaled \$28,000.
c. During the year, $\$ 2,500$ was collected from new customers as a refundable connection fee.
d. The utility sold $\$ 300,000$ of $6 \%$ revenue bonds at 97 on an interest payment date. Proceeds are earmarked for construction.
e. Depreciation for the year was as follows:

Buildings....................................... \$30,000
Improvements other than buildings....... 14,000 Machinery and equipment.................... 96,000
f. The utility recognized $\$ 52,000$ of construction in progress on a project totally financed by the state on behalf of the utility.
g. The utility refunded $\$ 1,000$ of deposits to customers who had moved.
Required:
Prepare journal entries to record the activities.
ANS:
a. Accounts Receivable ..... 400, 000
Due from Other Funds ..... 70,000Operating Revenues28,000
Operating Revenuesb. Accounts Receivable28,000
2,500 Cash
,Customers' Deposits Payable fromRestricted Assets2,500
d. Restricted Assets--Revenue BondConstruction Cash....................291, 000Unamortized Bond Discount on RevenueBonds9,000
6\% Revenue Bonds Payable ..... 300, 000
e. Depreciation Expense ..... 140, 000Accumulated Depreciation--Building....Accumulated Depreciation--ImprovementsAccumulated Depreciation--Machinery30,000
Other Than Building ..... 14,000
and Equipment. . . . . . . . . . . . . . . . . . . . . . . . ..... 96,000
f. Construction in Progress. 52,000Contributed Capital--State Government.52,000
g. Customers' Deposits Payable fromRestricted Assets1,000Restricted Assets--Customers' DepositsCash1,000
DIF: M ..... OBJ: 2
10. What is escheat property and how do we account for it?

ANS:
Escheat property is property that is transferred to the government when the rightful owner or heir does not claim it within a specified period of time. For example, in many states if there is no activity on a checking or savings account for three years, it becomes dormant and is transferred to the State's Escheat division. The State generally is required to publish a notice in a newspaper before such property is disposed of. Escheat property is accounted for in an expendable trust fund. At the time that the property can be converted for general government purposes, it will be transferred to the general fund from the expendable trust fund.

DIF: M OBJ: 2
11. The City of Light Falls operates a centralized garage and charges the other departments on a per-mile basis for the purchase and maintenance of most city-owned vehicles.

## Required:

Make journal entries to record the following selection of transactions concerning the motorpool during the following year:
a. Salaries of $\$ 360,000$ were paid during the year.
b. A bill from the Water and Sewer Enterprise Fund for $\$ 8,000$ was received and paid.
c. Eight new vehicles costing $\$ 24,000$ each were purchased for cash.
d. Billing to other city funds were as follows:
General Fund....................................................... . . $\$$.

Utility Fund..................................................... . . . . . . . . . 130 ,000
Special Revenue Fund............................................. 20,000
e. All of the billings in (d) except $\$ 50,000$ from the Utility Fund were paid.
f. Depreciation expense on the motorpool assets was $\$ 225,000$ for the year.

ANS:
a. Operating Expenses......................... 360,000

Cash....................................... 360,000
b. Operating Expenses........................... 8,000

Cash.......................................... 8,000
c. Vehicles...................................... 192,000

Cash
192, 000
d. Due from General Fund....................... 550,000
Due from Utility Fund....................... 130,000
Due from Special Revenue Fund............ 20,000
Operating Revenue
700,000
e. Cash.......................................... 6 ... 650,000
Due from General Fund
550,000
Due from Utility Fund.................... 80,000
Due from Special Revenue Fund......... 20,000
f. Operating Expenses.......................... 225,000
Allowance for Depreciation--Vehicles.
225,000
DIF: M OBJ: 2
12. A Nonexpendable Trust Fund was established to help pay for Little League baseball. A total of $\$ 100,000$ was donated to Babe City. The earnings, not the principal, from the donation could be used to fund baseball.
Required:
Make the entries and identify the fund into which the following transactions should be made:
a. The donation is received and invested immediately in a mutual stock fund.
b. Cash dividends of $\$ 8,500$ were received from the mutual fund and made available for spending.
c. During the first baseball season, $\$ 8,300$ was spent from the fund.
d. The closing entries were made.

ANS:
a.
Cash.................................................. 100,000 Fund Balance........................................... 100,000

Investments........................................... 100, 000
Cash
100, 000
b.

Endowment Principal Fund

| Cash | Endownent Principal Fund | 8500 |  |
| :---: | :---: | :---: | :---: |
| Revenue. |  | 8, | 8,500 |
| Operating Transfer |  | 8,500 |  |
| Cash. |  |  | 8,500 |
|  | Endowment Earnings Fund |  |  |
| Cash. |  | 8,500 |  |
| Other Financing | Sources.. |  | 8,500 |



## DIF: M OBJ: 3

13. What reporting is required for the accounting for employee Pension Trust Funds.

## ANS:

Employee pension trust funds are important because of the significant amounts of monies held in a fiduciary responsibility to be prudently invested to make future payments for employee pensions. GASB has just updated guidance for accounting and reporting for defined-benefit and defined-contribution plans and now requires a Statement of Plan Net Assets. The employers' annual required contribution (ARC), actuarial accrued liability (AAL), and net pension obligation (NPO) are required to be computed and reported. The intent is to clearly reveal the extent of funding. Is the government providing sufficient funding to meet the annual required contribution (ARC) or are they actually postponing this to the future (decreasing interperiod equity) and increasing the level of unfunded pension liability?

DIF: E OBJ: 3
14. Consider the following transactions:
a. The Cline County Tax Agency Fund was established to account for the county's responsibility of collecting Brent City and Cline County property taxes. The levies for 20X1 were $\$ 800,000$ for the County General Fund and $\$ 400,000$ for the City General Fund.
b. Collections were \$750,000.
c. The county is entitled to a fee of $1 \%$ of taxes collected for Brent City and Cline County sends the city the net amount due. Liabilities to all funds and units were recorded to date.
d. All moneys collected to date were released to each government unit.

Required:
Prepare the general journal entries required to record the following transactions in Cline County Tax Agency Fund.

ANS:

| a. Tax Receivable. | 1,200,000 |  |
| :---: | :---: | :---: |
| Due to Other Governmental Units. |  | 1,200, 000 |
| b. Cash. | 750,000 |  |
| Tax Receivable |  | 750, 000 |
| c. Due to Other Governmental Units | 750,000 |  |
| Due to Cline County General Fund |  | 502,500 |
| Due to Brent City. |  | 247,500 |
| d. Due to Cline County General Fund. | 502,500 |  |
| Due to Brent City. | 247,500 |  |
| Cash. |  | 750,000 |
| DIF: M OBJ: 4 |  |  |

15. In the space provided, fill in the name of the one fund or account group in which each of the following items is most likely to be recorded.

Item
(1) $\overline{\text { Services financed by user fees }}$ charged against other funds

Name of Fund or Group
$\qquad$
$\qquad$
(2) Resources used for construction of major general fixed assets
(3) Operations of general governmental functions
(4) Assets held for distribution to other governments or for individuals
(5) Accumulation of resources for and payment of general longterm debt assets
(6) Total historical cost of buildings owned by the government
(7) Activities related to an employee retirement program
(8) Services financed by user charges against the general public $\qquad$
(9) Accountability for assets whose principal must be preserved

ANS :
(1) Internal Service Fund
(2) Capital Projects Fund
(3) General Fund
(4) Agency Fund
(5) Debt Service Fund
(6) General Fixed Assets Account Group
(7) Pension Trust Fund
(8) Enterprise Fund
(9) Nonexpendable Trust Fund

DIF: E
OBJ: 4
16. Place a check mark in the appropriate column to indicate in which of the following funds and accounts groups the given accounts would commonly be found:

(1) Cash

| Account | Groups |
| :--- | :---: |
| General | General <br> Fixed <br> Long-term <br> Debt |
| Assets |  |

(2) Buildings $\qquad$
(3) Improvements other than buildings
(4) Depreciation expense
(5) Construction in process
(6) Amount available in Debt Service Fund $\qquad$
(7) Vouchers payable $\qquad$
$\qquad$
(8) Matured bonds payable $\qquad$
$\qquad$
(9) General obligation bonds payable $\qquad$
$\qquad$
(10) Fund balance--reserved for encumbrances $\qquad$
$\qquad$

ANS:
(1)

|  | Funds |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  |  | Debt | Capital |  |
| Account Title | General | Service | Projects | Enterprise |
| Cash | X | X | X | X |

(2) Buildings $\qquad$
$\qquad$ X
(3) Improvements other than buildings $\qquad$
(4) Depreciation expense $\qquad$
$\qquad$
$\qquad$
(5) Construction in process $\qquad$
$\qquad$
$\qquad$ X
$\qquad$
$\qquad$ X
(6) Amount available in Debt Service Fund $\qquad$
$\qquad$
$\qquad$
$\qquad$
(7) Vouchers payable X $\qquad$ X $\qquad$
(8) Matured bonds payable $\qquad$ X $\qquad$
$\qquad$
(9) General obligation bonds payable
(10) Fund balance--reserved for encumbrances $\quad \mathrm{X} \quad \mathrm{X}$


DIF: E OBJ: 4
17. Consider the following transactions:
a. The city government approved a $\$ 1,500,000$ addition to the library to be financed by a $\$ 1,000,000$ general obligation bond issue and a $\$ 500,000$ state grant. The city anticipated that the proceeds from both the bond sale and the grant would be received in 20X1. It is also estimated that $40 \%$ of the project will be completed by year end.
b. The bonds are sold at 101.
c. The grant is approved by the state for payment.
d. A contract for the project is signed to build the addition for \$1,440, 000 .
e. The architect's bill is received for $\$ 15,000$ and paid without an encumbrance.
f. One-half of the grant is received from the state.
g. A progress billing for $\$ 576,000$ is received from the contractor.
h. The closing entries for 20X1 are made.

Required:
Make the necessary journal entries to record the transactions in the Capital Project Fund of Chatham during 20X1. Budgetary accounts are used.

ANS:
a. Estimated Revenues 500, 000Estimated Other Financing Sources....... 1,000,000Appropriations,000, 000Budgetary Fund Balance--Unreserved.....1,010,000Other Financing Sources
b. CashOther Financing Uses10, 000Cash.
$\qquad$c. Due from the State500, 000RevenuesRevenues500, 000Fund Balances--Reserved for Encumbrances
e. Expenditures
Cash
Due from the Stateg. ExpendituresContract PayablesFund Balance--Reserved for Encumbrances.Encumbrances576, 000
600, 000 h. Appropriations
900, 000
Budgetary Fund Balances Unreserved Estimated RevenuesEstimated Other Financing Sources
$\qquad$
RevenuesOther Financing Sources.500, 000Expenditures, 010, 000Other Financing UsesFund Balance--Unreserved, Undesignated.
Fund Balance--Unreserved, Undesignated... ..... 864, 000Encumbrances1,440,00015, 000
f. Cash ..... 250, 000576, 000250, 000576, 000576, 000
1,010,000
10,000
1,440,000 d. Encumbrances
15,000
15,000
15, 000
15, 0001,440,000
500, 0001,000,000
591, 00010,000

$$
909,000
$$

DIF: M OBJ: 4
18. The following selected events occurred in Hershey City's Internal Service Fund for its automobile fleet:
a. An automobile fleet Internal Service Fund was established. The General Fund provided $\$ 85,000$ for its working capital. Of this amount, $\$ 40,000$ is to be repaid in equal annual installments over a five-year period. The remaining \$45,000 is a contribution that will not be repaid.
b. In prior years, accounting for fleet activities was conducted in the General Fund. The following fixed assets previously used for this activity are transferred to the Fleet Internal Service Fund. The market value amounts represent original cost less an estimate of accumulated depreciation if depreciation would have been recorded since they were acquired.

|  | Cost | Market Value |
| :---: | :---: | :---: |
| Building | \$220,000 | \$180, 000 |
| Machinery and equipment | \$430, 000 | \$350, 000 |

c. Billings for services to other funds are as follows:

To the General Fund........................... \$608,000
To an Enterprise Fund.......................... \$112,000
d. A one-year insurance policy is purchased. By year end, onehalf of the $\$ 18,000$ premium payment has expired.
e. Depreciation for the period:

Building.......................................... \$ 4,500
Machinery and equipment....................... \$65,000
f. Invoices for various goods and services received totaled \$127, 000.

Required:
Omitting explanations, prepare journal entries for all funds and groups affected, using the following format:

Event | Funds or Account |
| :---: |
| Groups Affected $\quad$ Journal Entries |

ANS:
Funds or Account Event Groups Affected a. General Fund

| Residual Equity |  |  |
| :---: | :---: | :---: |
| Transfer.. | 45,000 |  |
| Advance to Fleet Internal |  |  |
| Service Fund.. | 40, 000 |  |
| Cash |  | 85,000 |
| Cash. | 85,000 |  |
| Contributed Capital-- |  |  |
| Government... |  | 45,000 |
| Advance from General |  |  |
| Fund. |  | 40,000 |

b. General Fixed

Investments in General
Fixed Assets--
General Fund........ 650,000
Building............. 220,000
Machinery \& Equipment. . 430,000
(Note to instructor: Previously, these were general fixed assets, which were not depreciated. The assets also could be recorded at net book value.)

Funds or Account
Event Groups Affected Fleet Internal Service Fund

| Journal Entries |  |
| :---: | :---: |
| Buildings | 220,000 |
| Machinery and Equipment.. | 430, 000 |
| Accumulated Depreciation |  |
| -Buildings. | 40,000 |
| Accumulated Depreciation- |  |
| Machinery \& Equipment | 80,000 |
| Contributed Capital- |  |
| Government. | 530,000 |

c. Fleet Internal Due from General Fund.... 608,000 Service Fund Due from Enterprise Funds 112,000 Operating Revenues..... 720,000

General Fund Expenditures............ 608,000
Due to Fleet Internal Service Fund........ 608,000

Enterprise Fund Fleet Rental Expense..... 112,000
Due to Fleet Internal Service Fund........ 112,000
d. Fleet Internal Service Fund

Prepaid Items........... 18,000
Cash.
18,000
Insurance Expense........ 9,000
Prepaid Items......... 9,000
e. Fleet Internal

Depreciation Expense.... 69,500 Service Fund

Accumulated Depreciation -Building........... 4,500
Accumulated Depreciation-Machinery \& Equip... 65,000
f. Fleet Internal

Goods and Services Expense.............. 127,000
Accounts Payable....... 127,000

DIF: D OBJ: 2
19. For each of the following items, either the journal entry for the original event or the journal entry involving only periodic adjustments to the fund balance accounts for a city's Pension Trust Fund is provided.

Required:
Prepare the missing journal entry or indicate that no entry would be made. Omit explanations.

Journal Entries in the Pension Trust Fund:

For the Original Event:
a. Cash.............. 60,000 Operating
Revenues........ 60,000
To record cash contributions received, two-thirds from city, one-third from employees.
b. Cash

10,000
Operating
Revenues........ 10,000
To record earnings received, allocated to:
City Contri-
butions..... 6,000
Employees contributions.... 3,000 Benefit
reserve..... 1,000
C.
c. Fund balance--

Benefit and
Disability
Reserve...... 14,000
Fund Balance--
Unreserved, Undesignated 14,000 To adjust fund balances for cash payments to retired employees.
d.
d. Fund Balance--

Employer
Contributions.. 4,000
Fund Balance--
Employee
Contributions.. 2,000
Fund Balance--
Benefit and Dis-
ability Reserve 6,000
To adjust fund balances for transfers because of employee retirements.

```
e. Operating Expenses. 1,800
e.
    Cash........... 1,800
        To record payments to
        employees who resigned and
        requested repayment of
        contributions.
```

ANS:
a. Fund Balance--Unreserved, Undesignated... 60,000

Fund Balance--Employer Contributions..
Fund Balance--Employee Contributions...
20, 000
b. Fund Balance--Unreserved, Undesignated... 10,000

Fund Balance--Employer Contributions..
6, 000
Fund Balance--Employee Contributions... 3, 000
Fund Balance--Benefit and Disability Reserve.................. 1,000
c. Operating Expenses....................... 14 , 000

14,000
d. No entry is made for this event, other than the transfer of fund balances.
e. Fund Balance--Employee Contributions..... 1,800

Fund Balance--Unreserved, Undesignated. 1,800

DIF: D OBJ: 3
20. The following selected events occurred in the City of Canterbury.
a. On December 31, 20X7, $\$ 250,000$ was transferred from the General Fund to establish a central garage to service the city's vehicles. Of this amount, $\$ 150,000$ was spent on January 2, 20X8, to acquire a building with an estimated life of 25 years, $\$ 30,000$ was spent for the acquisition of land, and $\$ 60,000$ was paid for equipment with an estimated life of 10 years.
b. During the six months of operation to June 30, 20X8, the garage billed the General Fund for $\$ 24,000$ and Enterprise Funds for $\$ 50,000$. Except for $\$ 8,000$ still due from Enterprise Funds, the balance is collected.
c. Canceled checks revealed the following payments for garage activities:

Salaries (ignore deductions and taxes)............... \$31,000
Parts and supplies (perpetual system)................ 19, 000
Service provided by the city-owned utility.......... 2,000
Total payments........................................
======
d. At fiscal year end, the following adjustments were related to garage operations:

Inventory of parts and supplies on hand...... \$7,000
Depreciation...................................
To be computed.
e. On July 1, 20X7, the city issued 10-year, \$400,000, $8 \%$ general obligation serial bonds at 101 to finance the construction of a public health center for the aging. The premium on the bond sale is transferred to the Debt Service Fund for interest payment. Each $\$ 40,000$ serial is redeemable on June 30, along with annual interest on the outstanding bond face value. The project is estimated to cost $\$ 430,000$ and will be completed in less than one year. The General Fund will transfer resources, if needed, to cover the total cost. The city uses budgetary accounts for these projects.
f. During the fiscal year, construction of the public health center was completed at a cost of \$426,000, of which \$400,000 was paid, the remainder is payable after one year under a retained percentage contract arrangement. The \$26,000 deficiency was transferred from the General Fund.
g. On June 28, 20X8, \$68,000 is transferred from the General Fund to be applied to the payment of the first $\$ 40,000$ bond serial mentioned in e., plus interest. On this date, the Debt Service Fund records the maturing bonds and interest.
h. On June 30, the payment for the matured bond serial and interest is made.

Required:
For each event, prepare the necessary journal entries for all funds and account groups involved during the fiscal year ended June 30, 20X8. Indicate the fund or group in which the entries are made.

ANS:

| a. In the General Fund: |  |  |
| :---: | :---: | :---: |
| Residual Equity Transfer. | 250, 000 |  |
| Cash. |  | 250, 000 |
| To record transfer of cash to |  |  |
| Garage Internal Service Fund. |  |  |
| In Garage Internal Service Fund: |  |  |
| Cash | 250, 000 |  |
| Contributed Capital-Government. |  | 250, 000 |
| To record cash transfer from |  |  |
| Building. | 150,000 |  |
| Land. | 30, 000 |  |
| Equipment | 60,000 |  |
| Cash. |  | 240, 000 |
| To record acquisition of fixed assets. |  |  |

```
b. In Garage Internal Service Fund:
    Cash...........................................................000
    Due from Other Funds...................................000
        Operating Revenues.......................
        To record revenues from services
        rendered.
    In the General Fund:
    Expenditures...........................................000
    Cash............................................
        To record cash transfer for garage
        services.
    In Enterprise Funds:
    Operating Expenses.................................000
        Cash..........................................
        Due to Other Funds
        To record payment and amount due
        for garage services.
c. In Garage Internal Service Fund:
    Operating Expenses.................................}33,00
    Inventory of Parts and Supplies......... 19,000
        Cash .................
        To record cash disbursements.
        (Note that utility service is an
        operating expense as a quasi-
        external transaction.)
    In Utility Enterprise Fund:
```



```
        Operating Revenues.......................
        To record payment received for
        utility service to Garage
        Internal Service Fund
d. In Garage Internal Service Fund:
```



```
        Inventory of Parts and Supplies.......
            To establish year-end inventory.
    Operating Expenses..............................
        Accumulated Depreciation--Building....
        Accumulated Depreciation--Equipment...
                            3,000
            To record one-half year's depreciation:
            Building: 1/2 x $150,000 x 1/25 = $3,000
            Equipment: 1/2 x $ 60,000 x 1/10 = $3,000
```

```
e. In Capital Projects Fund:
    Estimated Other Financing Sources....... 430,000
        Appropriations
            To record annual budget.
        Cash
        Other Financing Sources
        404,000
        To record sale of general
        obligation serial bonds, with
        premium due to the Debt Service
        Fund.
    Other Financing Uses.................. 4,000
    Cash....................................
        To record transfer of bond premium
    In Debt Service Fund:
    Cash................................... 4,000
        Other Financing Sources..............
        To record premium on sale of bonds
        received from Capital Projects Fund.
    In General Long-Term Debt Account Group:
    Amount to Be Provided for Payment of 8%
    Serial Bonds............................
        8% Serial Bonds Payable
        To record liability for general
        obligation serial bonds issued
        for a capital project.
f. In Capital Projects Fund
    Expenditures
        Cash.
        Contract Payable--Retained Percentage.
        To record completion of health
        center.
    Cash
    Other Financing Sources
        To record transfer received from
        the General Fund.
    In General Fixed Assets Account Group:
    Buildings.................................
    Investment in General Fixed Assets--
        Capital Projects Fund
                            426,000
            To record completion of health
                center.
In General Fund:
Other Financing Uses
    26,000
        Cash
            To record transfer to Capital
        Projects Fund for amount needed
        to cover total cost of health center.
```

| g. In General Fund: Other Financing Uses | 68,000 |  |
| :---: | :---: | :---: |
| Cash. |  | 68,000 |
| To record transfer for serial bond |  |  |
| principal (\$40,000) and interest |  |  |
| payment (\$32,000) less \$4,000 |  |  |
| premium already transferred to |  |  |
| Debt Service Fund. |  |  |
| In Debt Service Fund: |  |  |
| Cash. | 68, 000 |  |
| Other Financing Sources |  | 68,000 |
| To record transfer from General Fund. |  |  |
| Expenditures. | 72,000 |  |
| Matured Serial Bonds Payable. |  | 40,000 |
| Matured Interest Payable |  |  |
| (8\% x \$400,000) |  | 32,000 |
| To record matured bond serial and interest. |  |  |
| In General Long-Term Debt Account Group: |  |  |
| Amount Available in Debt Service |  |  |
| Fund--Serial Bonds | 40,000 |  |
| Amount to be Provided for Payment of |  |  |
| 8\% Serial Bonds |  | 40,000 |
| To record additional amount |  |  |
| available for serial bond |  |  |
| redemption. |  |  |
| h. In Debt Service Fund: |  |  |
| Matured Serial Bonds Payable. | 40,000 |  |
| Matured Interest Payable. | 32,000 |  |
| Cash. |  | 72,000 |
| To record payments. |  |  |
| In General Long-Term Debt Account Group: |  |  |
| 8\% Serial Bonds Payable. | 40,000 |  |
| Amount Available in Debt Service |  |  |
| Fund--Serial Bonds. |  | 40, 000 |
| To record redemption of first bond serial. |  |  |

DIF: M
OBJ: 2
21. Given the following information for the City of Youngstown Municipal Golf Course:

Cash Balance 1/1/01
\$ 25,000
User Fees-Green Fees
375, 000
Net Repayment-Revolving Loan
35,000
Operating Transfer Out-General Fund
(property taxes)
50, 000
User Fees-League Fees and outings
100, 000
User Fees-Memberships
25,000
Cash Expenses Paid to suppliers
95,000
Interest/Dividends Received
12, 000
Acquisition/Improvement to Clubhouse
75,000
Cash Expenses Paid to employees
105, 000
Cash Expenses Paid Maintenance and Upkeep 100,000
Principal and Interest Payments on Bond 50,000
Prepare a cash flow statement for this enterprise fund.

ANS:

> City of Youngstown
> Municipal Golf Course Fund Statement of Cash Flows
> Increase/(Decrease) in Cash and Cash Equivalents For Year Ended $12 / 31 / 01$

Cash Flows from Operating Activities:
Cash Received from Customers
500, 000
Cash Paid for Operating Expenses Net Cash Provided-Operating Activities
(300, 000)
200, 000
Cash Flows from Noncapital
Financing Activities:
Net Repayments-Revolving Loan
$(35,000)$
Operating Transfers Out-to other funds
(50,000)
Net Cash Used-Noncapital
Financing Activities
$(85,000)$
Cash Flows from Capital and Related Financing Activities:
Principal and interest paid on bonds
$(50,000)$
Acquisition and
construction-capital assets
$(75,000)$
Net Cash Used-Capital and Related Financing Activities
$(125,000)$
Cash Flows from Investing Activities:
Interest and Dividends Received
Net Cash Received-Investing Activities
Net Increase in Cash and Cash Equivalents
Cash and Cash Equivalents 1/1/01
Cash and Cash Equivalents 12/31/01

| 12,000 |  |
| :--- | :--- |
|  | 12,000 <br> 2,000 <br> 25,000 <br> 27,000 <br> $======$ |

DIF: M OBJ: 2

## Chapter 17 - Financial Reporting Issues

## MULTIPLE CHOICE

1. The GASB Statement No. 34 reporting model includes, but is not limited to which of the following reports?
a. Government-wide financial statements
b. a management discussion and analysis section
c. funds based financial statements
d. all of the above

ANS: D DIF: E OBJ: 3
2. Required supplementary information now includes all of the following except for:
a. A budgetary comparison statement or schedule
b. Management discussion and analysis
c. pension related information
d. information about the condition of infra-structure assets

ANS: B DIF: E OBJ: 3
3. Which of the following statements relating to the requirements for financial reporting is not true?
a. General purpose financial statements are a columnar overview of the financial position and operating results of all funds
b. General purpose financial statements provide the minimum financial reporting necessary for fair representation of government activity
c. General purpose financial statements are part of the financial section of a comprehensive annual financial report
d. General purpose financial statements are part of required supplementary information

ANS: D
DIF: M
OBJ: 3
4. Which of the following could be considered a component unit of a primary government unit?
a. water utility enterprise
b. stadium taxing authority board
c. pension plan
d. affiliated booster club

ANS: C DIF: M OBJ: 2
5. When operations of component units of government are blended with the primary government unit, the are reported by
a. a separate column on the General Purpose Financial Statements of the primary governmental unit
b. disclosed in a footnote to the primary government unit General Purpose Financial Statements
c. Not reported or disclosed separately from the primary governmental unit
d. a separate set of general purpose financial statements

ANS: B DIF: M OBJ: 3
6. Which of the following were innovations in financial reporting introduced by GASB Statement No. 34?
a. An introductory narrative section
b. An overall view of the government in government wide statements
c. Comprehensive information about the cost of delivering services to citizens
d. all of the above

ANS: D DIF: E OBJ: 3
7. The purpose of the Management Discussion and Analysis section is
a. to give a concise overview and analysis of the financial statements
b. to provide detailed cost information relating to providing services to citizens
c. pension cost calculations for the governmental unit
d. detailed information about short term spending and fiscal compliance

ANS: A DIF: E OBJ: 3
8. Which of the following is/are reporting requirements in funds-based statements under GASB Statement No.34?
a. the statements highlight major funds and aggregate non major funds into one column
b. provide detailed information about short term spending and fiscal compliance
c. separate funds based statements are required for governmental, proprietary, and fiduciary funds
d. All of the above

ANS: D
DIF: M
OBJ: 3
9. Major funds are described as
a. the general fund and enterprise funds
b. at least 5\% of all government and enterprise funds combined
c. those in which assets, liabilities, revenues, or expenditures are at least $10 \%$ of all funds in that type.
d. all of the above

ANS: D
DIF: E
OBJ: 2
10. GASB Statement No. 34 requires the reporting for internal service funds by
a. combining income statement results with general fund activities
b. requiring internal service funds to be reported separately as major funds
c. classifying internal service funds as proprietary funds, labeled as government activities
d. All of the above

ANS: C DIF: M OBJ: 3
11. Which of the following is NOT a classification of the equity accounts of a proprietary fund?
a. Equity invested in capital assets, net of related debt
b. Equity restricted both externally and internally
c. Equity encumbrances
d. Equity unrestricted

ANS: C
DIF: M
OBJ: 3
12. Under the new requirements for a Statement of Cash Flow, what sections must be included in the statement?

1) Operating Cash Flows
2) Cash Flows from noncapital financing
3) Capital and related financing flows
4) Investing Cash Flows
a. 1, 2, 4, and interfund transfers in
b. 1, 2, 3, 4
c. $2,3,4$, and cash receipts from taxes
d. 1, 2, 3, and cash receipts from taxes

ANS: B DIF: M OBJ: 3
13. GASB Statement No. 34 requirements for the reporting for general fixed assets include
a. the use of account groups
b. reporting general fixed assets as a major fund
c. general fixed assets will be included only in the government wide financial statements
d. report general fixed assets as a component unit

ANS: C DIF: E OBJ: 3
14. Reciprocal interfund activities include all but which of the following?
a. interfund loans
b. interfund services between government and proprietary funds
c. advances to/from other funds
d. interfund reimbursements

ANS: D
DIF: M
OBJ: 3
15. Key characteristic of the statement of net assets include all of the following except:
a. general long-term assets at face value only
b. all capital assets
c. depreciation on capital assets except for certain infrastructure exceptions
d. interfund payables and receivables between governmental funds are eliminated

ANS: A
DIF: M
OBJ: 3
16. Which of the following combination of reports is needed on the statement of activities?
b.

| Revenue |  |  |  |
| :---: | :---: | :---: | :---: |
| Direct | Allocated | specifically | Program |
| expenses by | indirect | connected to | general |
| program | expenses | programs | fixed assets |
| yes | yes | no | no |
| yes | no | yes | no |
| yes | yes | yes | no |
| yes | yes | no | no |

ANS: C
DIF: E
OBJ: 3
17. GASB Statement No. 34 now requires the reporting for infrastructure assets. Special provisions for reporting include
a. mandatory straight line depreciation on all infrastructure assets
b. depreciation should not be recorded on any infrastructure assets
c. mall government unit do not have to report on infrastructure assets now or in the future
d. allowing various approaches to estimating infrastructure costs

ANS: D
DIF: M
OBJ: 3
18. The most common difference between funds-based and government-wide financial statements is
a. government-wide statements of activities show operating data by function
b. government-wide statements of activities use a format that differs from proprietary funds statements of revenues
c. interfund payables and receivables must be eliminated in the preparation of the statement of activities
d. all of the above

ANS: D
DIF: M
OBJ: 3
19. In order to convert the governmental fund balance sheet to a government wide statement of net assets requires which of the following activities?

1) Add general fixed assets, net of accumulated depreciation
2) Add general long-term debt, using the effective interest method
3) Eliminate the assets and liabilities of most internal service funds (those whose primary customer is the general government)
4) Eliminate the fund balance and classify the net assets into invested in capital assets, restricted net assets, and unrestricted net assets
a. 1, 2, 3, 4
b. 1, 3
c. 1, 2, 4
d. 3, 4
ANS: C DIF: M OBJ: 3
20. In order to convert the governmental fund statement of revenues to a government wide statement of activities which of the following activities is necessary?
1) Eliminate capital outlay expenditures
2) Reclassify revenues between program revenues and general revenues
3) Record bad debt expenses
4) Convert from Economic flow of resource method of account to current financial resources modified accrual based accounting
a. 1, 3, 4
b. 1, 2, 3
c. 1, 2, 3, 4
d. 1, 2, 4

ANS: B DIF: M OBJ: 3
21. Which of the following is not a purpose of the financial audit that accompanies statements?
a. ensuring compliance with fiscal requirements
b. render an opinion about whether the statements present fairly the financial position, results of operation, and cash flows of the government
c. to comment on the economy, efficiency or program results of a governmental unit
d. statements have been prepared in accordance with GAAP, GASB, and state, municipal, and federal laws

ANS: C DIF: E OBJ: 4
22. Audit reports prepared under the Single Audit Act include which of the following?
a. a report on compliance with laws and regulations
b. a report on the study of the internal control systems
c. an opinion on the fairness of financial statement presentation
d. all of the above

ANS: D
DIF: E
OBJ: 4

## PROBLEM

1. Briefly discuss the minimum requirements of the Management Discussion and Analysis section in the comprehensive annual financial report.

ANS:
The management's discussion and analysis (MD\&A) appears before the financial statements of a governmental unit and is provided to give an overview of the government's financial statements. The basic requirements include:
. Brief discussion on the financial statements including information on differences
. Condensed current and prior year financial information from the government wide financial
. Analysis of government's overall financial position, results of operations, and economic factors
. analysis of individual fund financial information including information on significant fund changes and projection of possible future limitations
. Variance analysis of budget, final budget and actual amounts
. Capital asset changes
. Long-term liabilities changes
. Report on the condition of infrastructure assets
. Any other information on items that could have a material effect on the governmental unit's financial position

DIF: M
OBJ: 1
2. What is the financial reporting pyramid and how would you describe the GASB Statement No. 34 reporting requirements?

ANS:

Refer to Illustration 17-1 in the text.
GASB Statement No. 34 reporting requirements are that governments will have to present entity wide summarized information at the top of the pyramid. Fund based financial statements are included at a lower level in the pyramid.

DIF: E OBJ: 3
3. GASB Statement No. 34 requires a separate set of financials statements for each of the three categories of funds. Prepare an analysis of the basic types of fund categories, what the measurement focus is and the basis of accounting, and which basic financial statements are needed.

ANS :
Fund
Category
Government

$\quad$| Measurement |
| :--- |
| Focus |
| Current Financial |
| Resources |


| Basis of |
| :--- |
| Accounting |
| Modified |
| accrual |

Financial Statements Government

| Proprietary | Economic |
| :--- | :--- |
| Resource |  |

Accrual . Statement of revenues, expenses, and changes in fund net assets/ equity
. Statement of Cash Flows

Fiduciary Economic Accrual . Statement of Resources fiduciary net assets
. Statement of changes in fiduciary net assets
4. From the following information, prepare a statement of net assets for the city of Franklin as of June 30, 2003:

| Cash and Cash equivalents, Governmental | $\$ 500,000$ |
| :--- | ---: |
| Cash and Cash equivalents, Business Activities | 300,000 |
| Receivables, Governmental | 280,000 |
| Inventories, Business Activities | 135,000 |
| Capital Assets, net, Governmental | $1,330,000$ |
| Capital Assets, net, Business Activities | 750,000 |
| Accounts Payable, Governmental | 158,000 |
| Accounts Payable, Business Activities | 96,000 |
| Noncurrent liabilities, Governmental | $1,005,000$ |
| Noncurrent liabilities, Business Activities | 585,000 |
| Net Assets invested in Capital Assets (net of Debt) |  |
| Governmental | 733,000 |
| Net Assets Restricted: | 465,000 |
| Governmental |  |
| Business Activities | 132,000 |
| Net Assets Unrestricted: | 93,000 |

ANS:
City of Franklin
Schedule of Net Assets
June 30, 2003

|  | Governmental Activities | Business Type Activities | Total <br> Primary Government |
| :---: | :---: | :---: | :---: |
| Current and |  |  |  |
| Other assets | 780,000 | 435, 000 | 1,215,000 |
| Capital Assets | 1,330,000 | 750,000 | 2,080,000 |
| Total Assets | 2,110,000 | 1,185,000 | 3,295,000 |
| Long Term Debt | (1, 005, 000) | (585, 000 ) | (1,590, 000) |
| Other Liabilities | $(158,000)$ | $(96,000)$ | (254, 000) |
| Total Liab | $(1,163,000)$ | (681,000) | (1,844, 000) |
| Net Assets: |  |  |  |
| Invested in |  |  |  |
| Capital Assets |  |  |  |
| (net of debt) | 733,000 | 465, 000 | 1,198,000 |
| Restricted | 132,000 | 93,000 | 225, 000 |
| Unrestricted | 82,000 | (54, 000) | 28,000 |
| Total Net Assets | 947,000 | 504,000 | 1,451,000 |

DIF: D
OBJ: 3
5. The City of Terrytown reports the following information:

Government Activities:

| General-Direct | $\$ 85,000$ |
| :--- | :--- |
| Police-Direct | $\$ 115,000$ |
| Fire Safety-Direct | $\$ 95,000$ |
| Public Works-Direct | $\$ 185,000$ |
| Recreation-Direct | $\$ 75,000$ |
| Library-Direct | $\$ 140,000$ |
| Interest on Long term Debt-Direct | $\$ 30,000$ |
| Police-Indirect Allocation | $\$ 20,000$ |
| Fire Safety-Indirect Allocation | $\$ 25,000$ |
| Public Safety-Indirect Allocation | $\$ 25,000$ |
| Recreation-Indirect Allocation | $\$ 10,000$ |
| Library-Indirect Allocation | $\$ 20,000$ |
| Charges for Police service | $\$ 90,000$ |
| Charges for Fire Protection | $\$ 50,000$ |
| Charges for Public Works | $\$ 105,000$ |
| Charges for Library | $\$ 25,000$ |
| Charges for Recreation | $\$ 45,000$ |
| Operating Grants for Fire Safety | $\$ 15,000$ |
| Capital Grants for Library | $\$ 75,000$ |

There are no business type activities for this city or other component units. Taxes raised for general revenues equal \$200,000 and taxes raised for debt service equal $\$ 25,000$. Other general revenues were generated through fines, fees, and permits that total \$100,000. The city also sold a plot of land for a gain of $\$ 10,000$. The beginning of the year net assets totaled $\$ 155,000$.

Required:
Prepare a statement of activities schedule for the city.

ANS:

|  | Expenses | Indirect Exp Alloc. | Charges for Services | Operating Grants | Capital Grants | Net Revenue (Expense) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Function/Program: |  |  |  |  |  |  |
| General | \$ 85,000 | \$ 0 | \$ 0 | \$ 0 | \$ 0 | \$ (85, 000 ) |
| Police | 115, 000 | 20,000 | 90,000 | 0 | 0 | $(45,000)$ |
| Fire | 95, 000 | 25,000 | 50,000 | 15,000 | 0 | $(55,000)$ |
| Public |  |  |  |  |  |  |
| Works | 185, 000 | 25,000 | 105, 000 | 0 | 0 | $(105,000)$ |
| RecDept | 75, 000 | 10,000 | 45, 000 | 0 | 0 | (40, 000) |
| Library | 140, 000 | 20,000 | 25,000 | 0 | 75,000 | (60, 000) |
| Interest | 30, 000 | 0 | 0 | 0 | 0 | $(30,000)$ |
| Total | \$725,000 | \$100,000 | \$315,000 | \$15,000 | \$75,000 | \$(420, 000) |

## General Revenues:

Property Taxes-

| General | 200,000 |
| :--- | ---: |
| Property Taxes- |  |
| Debt Service | 25,000 |
| Fees/Fines/ | 100,000 |
| Permits |  |
| Gain on Sale | 10,000 |
| of land |  |
| Total General Revenues, |  |
| special items, and |  |
| transfers |  |
| Changes in |  |
| Net Assets | $(85,000)$ |
| Net Assets-Beginning | $\underline{155,000}$ |
| Net Assets-Ending | $=======$ |

DIF: D
OBJ: 3

## Chapter 18 - Accounting for Private Not-For-Profit Organizations

## MULTIPLE CHOICE

1. Which of the following is NOT a required characteristic of a private not-for-profit organization per the definition given by the AICPA?
a. no owners or shareholders
b. an operating purpose other than making a profit
c. an organization dedicated to service of the public good
d. Significant contributions from providers who do not expect reciprocal goods or services in return
ANS: C
DIF: M
OBJ: 2
2. Alice makes a cash gift which has no strings attached to a political party. It is recorded as:
a. An Endowment.
b. Revenue-Unrestricted contribution.
c. Revenue-Temporarily Restricted Contribution.
d. An increase in the fund balance of the General Fund.

ANS: B DIF: E OBJ: 4
3. Atlee makes a cash gift to a not-for-profit local ballet company which is designated by the donor to buy costumes for a new ballet staging. It should be accounted for with the following journal entry:
a. Cash

XXX
Revenue-Unrestricted Contribution XXX
b. Cash XXX

Revenue-Temporarily Restricted Contribution XXX
c. Cash XXX

Revenue-Endowment Fund XXX
d. Cash

XXX
Revenue-Permanently Restricted XXX

ANS: B DIF: M OBJ: 4
4. A major corporation makes a donation of $\$ 10,000,000$ to the local art museum foundation for the construction of a new art museum provided the community can match the $\$ 10,000,000$ with other donations. This is an example of $a(n)$ :
a. Unconditional Pledge
b. Unrestricted Contribution
c. Conditional Pledge
d. Endowment

ANS: C
DIF: E
OBJ: 4
5. Government grants that require performance by the not-for-profit organization will be accounted for as:
a. Revenue-Unrestricted
b. Refundable deposits until earned, then Revenue-Unrestricted
c. Revenue-Temporarily Unrestricted
d. Endowments

ANS: B DIF: E OBJ: 4
6. In a not-for-profit organization, depreciation on capital assets is recognized on all but which of the following?
a. contributed assets.
b. building.
c. equipment.
d. works of art intended for a display collection.

ANS: D DIF: M OBJ: 5
7. The local chapter of a CPA association, a not-for-profit organization, separate their expenses between program functions and support functions. Which of the following denote a proper classification of expenses?

Program Expense
a. Continuing Education Programs on Sales/Use Tax Requirements
b. Continuing Education Programs on Sales/Use Tax Requirements
c. Fund Raising Expenses
d. Fund Raising Expenses

Support Expense
Conference Expenses
on Selecting Accounting
Software
Executive Director Salary
Continuing Education
Programs Conference Expenses on Sales/Use Tax Executive Director Salary

ANS: B
DIF: M
OBJ: 5
8. On the financial statements of a not-for-profit prepared under FASB 117, the term "fund balance" has been replaced with the term:
a. surplus/deficit
b. Net Income/Loss
c. Net Assets
d. Net Equity

ANS: C
DIF: E
OBJ: 3
9. Which of the following is NOT a required external financial statement for a not-for-profit organization?
a. Statement of Financial Position
b. Statement of Functional Expenses
c. Statement of Activities
d. Management Discussion and Analysis

ANS: D
DIF: E
OBJ: 3
10. Public support for a voluntary health and welfare organization includes:
a. news articles about the organization.
b. banners and promotional materials.
c. legacies and bequests.
d. celebrity endorsements.

ANS: C DIF: E OBJ: 8
11. Which of the following organizations would be classified as a voluntary health and welfare organization?
a. the local ballet company
b. the Sierra Foundation, an environmental organization
c. a private elementary school
d. a synagogue

ANS: B DIF: E OBJ: 7
12. Currently, which of the following has jurisdiction over accounting and financial reporting standards for voluntary health and welfare organizations?
a. The Governmental Accounting Standards Board
b. The Financial Accounting Standards Board
c. American Institute of Certified Public Accountants
d. The Not-for-Profit Accounting Board

ANS: B DIF: M OBJ: 7
13. A donation was received by a voluntary health and welfare organization specifically to care for indigent patients. Which of the following should be used to record the gift?
a. Unrestricted Net Assets
b. Public Support--Unrestricted Contribution
c. Public Support--Temporarily Restricted Contributions
d. Revenues--Unrestricted

ANS: C DIF: M OBJ: 8
14. Depreciation Expense is recorded in which of the following funds for a voluntary health and welfare organization electing to use fund accounting?
a. Current Unrestricted Fund
b. Plant Fund
c. Depreciation is recorded in both the Current Unrestricted and Plant funds.
d. Depreciation is not normally recorded by health and welfare organizations.

ANS: B
DIF: M
OBJ: 8
15. A donation was received by a voluntary health and welfare organization of materials to be used in providing services. How would these donated materials be recorded?
a. As inventory
b. As restricted contributions
c. As assets held for resale
d. As contributed services

ANS: A DIF: E OBJ: 8
16. A voluntary welfare organization is permitted to use building facilities rent free. This should be recorded as:
a. a footnote in the financial statements disclosing the rent-free arrangement.
b. a contribution.
c. rent expense at the fair market value.
d. both b and c are correct.

ANS: D
DIF: M
OBJ: 9
17. Which of the following items are considered special event support for a voluntary health and welfare organization?
a. bingo games and bake sales
b. a donated painting
c. donated stock in a publicly traded company
d. bequest of a building

ANS: A
DIF: M
OBJ: 8
18. A contribution made in 1999 to a voluntary health and welfare organization, which is restricted to usage to celebrate the millennium in the year 2000, is recorded as a credit to:
a. Contributions.
b. Revenue--unrestricted.
c. Revenue--temporarily restricted.
d. Revenue--permanently restricted.

ANS: C
DIF: M
OBJ: 8
19. What is the proper method of carrying investments by a voluntary health and welfare organization?
a. cost
b. lower of cost or market
c. either cost or market if applied consistently
d. market value measured at year end

ANS: D
DIF: M
OBJ: 7
20. Which of the following financial statements is not required when reporting for a voluntary health and welfare organization?
a. Statement of Financial Position
b. Statement of Support, Revenue, Expenses and Changes in Fund Balances
c. Statement of Functional Expenses
d. Statement of Cash Flows

ANS: B
DIF: M
OBJ: 9
21. Assume that investments in an Endowment Fund are being carried at market value. The annual net appreciation of investments should:
a. not be recognized until realized.
b. be recorded as investment revenue.
c. be recorded as deferred revenue.
d. be credited directly to the Endowment Fund Balance.

ANS: B DIF: E OBJ: 11
22. The American Heart Association is having its annual Heart Ball. The ball is an on-going event and a major annual event for the association. Any direct costs of the ball are considered:
a. Cost of Special Events
b. Operating Expenses
c. Fund Raising Expenses
d. None of the above
ANS: C DIF: E OBJ: 8
23. Which of the following would appear in the Custodian (Agency) Funds of a voluntary health and welfare organization?

|  |  | Revenues |  |
| :--- | :--- | :--- | :--- |
| a. | $\frac{\text { Liabilities }}{\text { Yes }}$ |  | Yes |
| b. | No |  | Yes |
| c. | Yes |  | No |
| d. | No |  | No |

ANS: B
DIF: M
OBJ: 11
24. Gains and losses, in other than the first year, from pooled investments are distributed to participating funds based on:
a. cost of contributed assets at the time of original pooling.
b. market value of contributed assets at the time of original pooling.
c. market value at the time of any additions or withdrawals.
d. market value at the previous valuation date.

ANS: D
DIF: M
OBJ: 11
25. Which of the following expenses would be considered a program service expense for the local cancer society?
a. salary of a home care nurse
b. salary of the local director
c. rent for the local office
d. printing costs for a fund-raising brochure

ANS: A DIF: E OBJ: 8
26. A CPA donates her services to prepare the annual financial report for a voluntary health and welfare organization. The services should be recorded as:
a. revenues-unrestricted.
b. accounting expenses.
c. a footnote disclosure in the financial report.
d. both $a$ and $b$ are correct.

ANS: D DIF: M OBJ: 8
27. Voluntary health and welfare organizations prepare a Statement of

Activities which displays program and supporting services costs.
Program expenses for a cancer society would include:
a. fund-raising costs
b. chief executive officer salary
c. program costs of cancer research
d. Brochures for prospective members

ANS: C DIF: M OBJ: 9
28. Donated services are recognized as a contribution if:
a. they create or enhance nonfinancial assets.
b. they require specialized skills and the individuals performing the donated service possess those skills.
c. the organization would otherwise purchase the service.
d. All of the above are correct.

ANS: D DIF: M OBJ: 8

## PROBLEM

1. a. Describe the basic accounting for private not-for-profit groups promoted by FASB Statement No. 117 including a brief description of the three net asset classes.
b. Indicate in which of the net asset classes the following transactions belong:
2. Donor makes gift to not-for profit which must be invested and maintained in perpetuity
3. Income Earned on donation noted in item \#1 is restricted to certain program expenditures
4. Gains/Losses, both realized and unrealized, on donation noted in item \#1. Not stipulated in donor agreement or by the law
5. Expenses paid out for programs stipulated in donor agreement relating to donation made in item \#1.

ANS:
a. Full accrual accounting methods are recommended for not-for-profit organizations following FASB Statement No. 117. There has been a shift away from fund accounting and not-for profits no longer utilize fund balances. Instead, three net asset classifications are used. They are unrestricted, temporarily restricted, and permanently restricted. The net asset classes are designed to show the distinction between resources externally restricted and those just internally designated by the board.
b. 1. Permanently Restricted
2. Income earned is temporarily restricted
3. Unrestricted
4. Temporarily restricted moving to unrestricted

DIF: E OBJ: 2, 4
2. How do you differentiate between a voluntary health and welfare organization and another not-for-profit organization?

ANS:
Voluntary health and welfare organizations have some public health and welfare purpose as their primary reason for existing. The Salvation Army and Red Cross are good examples of voluntary health and welfare organizations. Other not-for-profit organizations include all organizations that are not properly classified as a college or university, health care organization, or voluntary health and welfare organization. A country club or political party are good examples of a not-for-profit organization.

DIF: E OBJ: 7
3. What are the two major categories of resources obtained by voluntary health and welfare organizations, and how do they differ?

ANS:
The two major categories used to record and communicate inflows of resources are public support and revenue. Public support is the inflow of resources from voluntary donors who receive no direct, personal benefit from the organization's usual programs in exchange for the contributions. Revenues are inflows of resources resulting from a charge for service or from financial activities.

DIF: E OBJ: 7
4. Describe the circumstances that must be true in order for donated, personal services to be recorded as revenue (contributions) in a voluntary health and welfare organization.

ANS:
All of the following criteria must be met in order to recognize donated services as revenue:

Services creating or enhancing non-financial assets or services requiring specialized skills are provided by individuals processing those abilities and would have to be purchased by the organization if not donated.

DIF: M OBJ: 7
5. By placing a check mark in the appropriate column, indicate all of the funds of a voluntary health and welfare organization in which the following events might correctly be recorded. (Hint: An event may require entries in more than one fund.)

| Event | Current <br> Unrestricted | Funds Restricted | Plant Fund | Endowment Fund |
| :---: | :---: | :---: | :---: | :---: |
| a. Allocation of expenses to programs and services |  |  |  |  |
| b. Receipt of cash contributions....... |  |  |  |  |
| c. Creation of $a$ designated account from unrestricted net assets.......... |  |  |  |  |
| d. Recording of depreciation expense. |  |  |  |  |
| e. Expending of or releasing cash for donor-specified activity............. |  |  |  |  |

ANS :

| Event | Current Unrestricted | Funds Restricted | Plant Fund | Endowment Fund |
| :---: | :---: | :---: | :---: | :---: |
| a. Allocation of expenses to programs and services.. | X | X | X | X |
| b. Receipt of cash contributions.. | X | X | X | X |
| c. Creation of a designated account from unrestricted net assets. | X |  |  |  |
| d. Recording of depreciation expense. |  |  | X |  |
| e. Expending of or releasing cash for donor-specified |  | x | X | X |

DIF: M OBJ: 7
6. The following events are for the Public Health Agency, a voluntary health and welfare organization that conducts two programs: public health research and public health education:
a. The agency received its first contribution, consisting of 1,000 shares of Parker House common stock valued at $\$ 60,000$. The stock was donated by Ron Wolf, a local financier, who specified that earnings from the permanent endowment would not be subject to any restrictions.
b. Dianne Stein, a widow who was a volunteer for the Public Health Agency, died. Her will established a cash endowment of $\$ 200,000$ and stipulated that gains on the sale of any investments purchased with these funds should increase the permanent endowment. However, earnings should be used for the purchase of equipment. The cash was accepted under the terms in the will.
c. Investments were made from the Stein endowment fund. Utility bonds with a face value of $\$ 100,000$ and a contract rate of $12 \%$ were purchased at 104, plus $\$ 2,000$ of accrued interest for 2 months on May 1, 20X7. The bonds mature in 40 months. On the same date, $\$ 90,000$ was invested in money market certificates yielding 7\%.
d. The following revenue was received on September 1, 20X7:

Dividends on the Parker House common stock....... \$3,000 Semiannual interest on the utility bonds......... \$6,000
e. The Parker House common stock is sold at a net price of $\$ 67$ per share on October 1, 20X7.
f. The $\$ 67,000$ proceeds from the sale of Parker House common stock were invested in 10\% industrial bonds with a face value of $\$ 70,000$ and a market value of $\$ 67,000$ on an interest payment date. The bonds mature in 60 months. This transaction had the approval of Wolf, who recommended that only the cash flow be available for operations. The board agreed that this was preferable.
g. At year end, accrued interest for four months on the utility bonds was \$4,000; accrued interest for three months on the industrial bonds was \$1,750. The interest on money market certificates was accrued.

Required:
Prepare journal entries for the year ended December 31, 20X7:

ANS:
a. Investments (Parker House Common Stock)... 60,000

Contributions--Permanently Restricted... 60,000
To record market value of securities received as a permanent endowment from Wolf.
b. Cash...................................... 200,000

Legacies and Bequests--Permanently
Restricted.......................... 200,000
To record legacy from Stein.
c. Endowment Investments (12\% Utility Bonds). 100,000

Premium on Utility Bonds Purchased........ 4,000
Accrued Investment Income................. 2,000 Endowment Investments (Money Market

Certificate)......................... . 90,000
Cash....................................
To record investments from Stein endowment.
d. Cash

6,000
Accrued Investment Income...............
2,000
Endowment Income--Temporarily Restricted
3, 600
Premium on Utility Bonds Purchased
To assign sufficient cash inflow from utility bonds to protect endowment principal. Amortization of bond premium is for 4 months at $\$ 100$ per month (\$4,000/40 months).

```
e. Cash...................................... 67,000
    Endowment Investments (Parker House
            Common Stock)
                60,000
    Realized Gain on Endowment Investment
            Transactions--Permanently Restricted..
```

f. Endowment Investments (10% Industrial Bonds) 70,000
Discount on Industrial Bonds Purchased..
Cash................................... 67,000
To record bonds purchased with
proceeds from part e.
g. Accrued Investment Income........................ 4,000
Premium on Utility Bonds Purchased.....
To record accrual of 4 months'
interest and amortization of
premium, along with liability to
the Plant Fund.
Accrued Investment Income................. 1,750
Endowment Income--Temporarily Restricted
To record accrual of interest on
industrial bonds and liability
for those earnings.
Discount on Industrial Bonds Purchased.... }15
Endowment Income--Temporarily Restricted
To record accumulation of discount
for 3 months at \$50 per month
(\$3,000/60 months).
Accrued Investment Income
4,200
Endowment Income--Temporarily Restricted

```400
Endowment Income, Temporarily Restricted ..... 3,600on money market certificates.

3, 000 67,000
To record bonds purchased with proceeds from part e.
g. Accrued Investment Income..................... \(\quad 4,000\)
Premium on Utility Bonds Purchased..... To record accrual of 4 months' interest and amortization of with liability to the Plant Fund.

Accrued Investment Income
1,750
Endowment Income--Temporarily Restricted industrial bonds and liability for those earnings.

Discount on Industrial Bonds Purchased.... 150
Endowment Income--Temporarily Restricted for 3 months at \(\$ 50\) per month (\$3,000/60 months).

Accrued Investment Income
4,200 on money market certificates.
7. Rapitown Arts Council provides financial support to a number of independent fine-art projects in the city. Data concerning several events follow:
a. During 20X5, a fund-raising drive yielded \$100,000 in cash and \$25,000 in pledges.
b. Based on past experience, \(10 \%\) of the pledges are estimated to be uncollectible.
c. A July 4 art fair yielded \(\$ 20,000\) in gross revenue. The proceeds of the fair are considered unrestricted. The cost of the program was \(\$ 8,000\), paid in cash.
d. \(\$ 22,000\) of the pledges mentioned in part (a) are collected during the year.
e. The following expenses were paid:


Required:
Make the necessary entries to record the transactions.

ANS:
\begin{tabular}{|c|c|c|}
\hline a. Cash. & 100, 000 & \\
\hline Contributions Receivable. & 25,000 & \\
\hline Contributions--Unrestricted. & & 125,000 \\
\hline b. Provisions for Uncollectible Contributions Allowance for Uncollectible & 2,500 & \\
\hline Contributions. & & 2,500 \\
\hline c. Cash. & 20,000 & \\
\hline Special Events Support--Unrestricted. & & 20,000 \\
\hline Cost of Special Events & 8,000 & \\
\hline Cash. & & 8,000 \\
\hline d. Cash & 22,000 & \\
\hline Contributions Receivable & & 22,000 \\
\hline e. Salary and Related Expenses & 12,000 & \\
\hline Rent Expense. & 6,000 & \\
\hline Postage Expense & 1,500 & \\
\hline Conference Expenses & 2,000 & \\
\hline Cash....... & & 21,500 \\
\hline
\end{tabular}

DIF: M
OBJ: 10
8. The following events affected the Rapitown Arts Council:
a. Contributions of \(\$ 20,000\), restricted for use in the children's art program, are received.
b. Stocks with a book value of \(\$ 10,000\) and a fair market value of \(\$ 11,000\) were donated. The proceeds from the sale of the stocks are to be used by the local drama group.
c. A famous author lectured to high school students in the children's art program. The cost was \(\$ 3,000\) and was paid by the contributions from part (a).
d. The stock donated in part (b) is sold for \(\$ 11,500\).

Required:
Make the necessary journal entries.

ANS:
a. Cash
20, 000
Contributions--Temporarily Restricted...
20, 000
b. Investments--Stock.
11,000
Contributions--Temporarily Restricted...
11,000
c. Cost of Children's Arts Program.
3,000
Cash............................................. . . . 3,000
Reclassification Out--Temporarily Restricted Satisfaction of Program Restrictions..................................
Reclassification In--Unrestricted Satisfaction of Program Restrictions.
3,000 3, 000
d. Cash
11,500
Investments
11, 000 Realized Gain on Investment
Transactions--Temporarily Restricted. 500
DIF: M
OBJ: 10
9. The following events are for South City Shelter, a voluntary health and welfare organization that provides emergency shelter and health care for the homeless, as well as educational programs:
a. A fund-raising program for a portable medical clinic yielded cash contributions of \(\$ 50,000\) and pledges of \(\$ 100,000\). In the past, \(5 \%\) of pledges have been shown to be uncollectible.
b. A note for \(\$ 100,000\) was signed to finance the remaining cost of the clinic.
c. The mobile clinic and support materials were purchased for \$240,000.
d. A note payment of \(\$ 5,000\) and \(\$ 1,500\) in interest was paid for the note in part (c).

Required:
Record the necessary journal entries.

ANS:
\begin{tabular}{|c|c|c|}
\hline a. Cash & 50,000 & \\
\hline Contributions Receivable & 100,000 & \\
\hline Contributions--Temporarily Restricted.. & & 150,000 \\
\hline \begin{tabular}{l}
Provision for Uncollectible Contributions \\
Allowance for Uncollectible
\end{tabular} & 5,000 & \\
\hline Contributions & & 5,000 \\
\hline b. Cash & 100, 000 & \\
\hline Note Payable & & 100,000 \\
\hline c. Land, Building and Equipment & 240, 000 & \\
\hline Cash. & & 240,000 \\
\hline Reclassification Out--Temporarily & & \\
\hline Restricted-Satisfaction of Plant & & \\
\hline Acquisition Restrictions. & 150, 000 & \\
\hline Reclassification In--Unrestricted-- & & \\
\hline Satisfaction of Plant Acquisition & & \\
\hline Restrictions. & & 150,000 \\
\hline d. Note Payable............................... & 5,000 & \\
\hline Interest Expense (to be allocated to & & \\
\hline programs and support services).... Cash & 1,500 & 6,500 \\
\hline
\end{tabular}

DIF: D
OBJ: 8
10. South City Shelter is a voluntary health and welfare organization that provides emergency shelter and health care for the homeless, as well as educational programs. South City Shelter incurred the following transactions:
a. A computer with a book value of \(\$ 500\) (original cost, \(\$ 2,800\) ) was sold for \(\$ 650\).
b. Kitchen equipment with a book value of \(\$ 1,100\) (original cost, \(\$ 3,500\) ) was damaged in a fire and taken to the dump.
c. Total depreciation for the year was \(\$ 60,000\).
d. To close the depreciation expense, it was determined that \(70 \%\) should be allocated to the Shelter Program, 15\% to the Education Program, and \(15 \%\) to the Health Care Program.

Required:
Make the necessary journal entries to reflect the events.

ANS:
a. Cash

650
Accumulated Depreciation.................. 2, 300
Land, Building and Equipment...........
2,800
Gain on Sale--Unrestricted 150
b. Accumulated Depreciation................... 2, 400

Loss on Disposal of Plant...................
1,100
Land, Building, and Equipment..........
3,500
c. Depreciation Expense

60, 000
Accumulated Depreciation............... 60,000
d. Shelter Program Expense................... 42,000

Education Program Expense...................
9, 000
Health Care Program Expense.................
9,000
Depreciation Expense
60,000

DIF: D
OBJ: 8
11. By placing a check mark in the appropriate column, indicate in which fund of a voluntary health and welfare organization the following events normally would be recorded. (Note: An event may require entries in more than one fund.)
\begin{tabular}{|c|c|c|c|c|}
\hline Event & Current Unrestricted & Funds Restricted & Plant Fund & Endowment Fund \\
\hline \multicolumn{5}{|l|}{a. Receipt of donated} \\
\hline \multicolumn{5}{|l|}{securities, revenue} \\
\hline \multicolumn{5}{|l|}{used for both} \\
\hline \multicolumn{5}{|l|}{unrestricted and} \\
\hline \multicolumn{5}{|l|}{specified current} \\
\hline activities. & & & & \\
\hline \multicolumn{5}{|l|}{b. Receipt of revenue} \\
\hline \multicolumn{5}{|l|}{from donated securities} \\
\hline in step (a)............ & & & & \\
\hline \multicolumn{5}{|l|}{c. Receipt of donated} \\
\hline \multicolumn{5}{|l|}{fixed assets, which} \\
\hline \multicolumn{5}{|l|}{are to be sold, with} \\
\hline \multicolumn{5}{|l|}{no restrictions on} \\
\hline proceeds.... & & & & \\
\hline \multicolumn{5}{|l|}{} \\
\hline \multicolumn{5}{|l|}{d. Recording of} \\
\hline \multicolumn{5}{|l|}{e. Appropriation of the} \\
\hline \multicolumn{5}{|l|}{unrestricted net} \\
\hline \multicolumn{5}{|l|}{assets by the board} \\
\hline of directors........ & & & & \\
\hline
\end{tabular}

ANS:
\begin{tabular}{|c|c|c|c|c|}
\hline Event & Current Unrestricted & Funds Restricted & Plant Fund & Endowment Fund \\
\hline a. Receipt of donated securities, revenue from which is to be used for both unrestricted and specified current activities. & & & & x \\
\hline b. Receipt of revenue from donated securities in step (a)............. & X & X & & \\
\hline c. Receipt of donated fixed assets, which are to be sold, with no restrictions on proceeds. & X & & & \\
\hline d. Recording of depreciation............ & & & X & \\
\hline e. Appropriation of the unrestricted net assets by the board of directors........ & X & & & \\
\hline
\end{tabular}

DIF: M OBJ: 7, 8
12. Senior Wellness Center is a voluntary health and welfare organization devoted to health education for the elderly. It has investments in its Restricted Fund, its Plant Fund, and its Endowment Fund. On January 2, the organization decided to pool the investments of the three funds, and thereafter to maintain all investment account balances at market value.
a. On January 2, when investments were pooled, the following data applied:
\begin{tabular}{|c|c|c|}
\hline & Inve & \\
\hline & & Market \\
\hline & Original & Values \\
\hline Fund & Basis & January 2 \\
\hline Restricted. & \$ 55,000 & \$ 75,000 \\
\hline Plant & 70,000 & 75,000 \\
\hline Endowment & 125,000 & 100, 000 \\
\hline Total & \$250,000 & \$250,000 \\
\hline
\end{tabular}
b. On March 31, the end of the first quarter, the pool reports sales of investments carried at \(\$ 70,000\) for \(\$ 90,000\). Realized gains and other realized income are allocated to funds upon realization. Percentages of equity may be rounded to the nearest tenth of one percent. Total cash and market value of pooled investments on March 31 is \$275,000.

\section*{c. The second-quarter report as of June 30 shows sales of investments for \(\$ 90,000\) which were carried at \(\$ 100,000\). Total cash and market value of pooled investments on June 30 is \$260, 000 .}

\section*{Required:}

Prepare a schedule of equities in pooled investments for the three funds at the end of the first two quarters.

ANS:
For the worksheet solution, please refer to Answer 18-1.

DIF: D OBJ: 10
13. The Good Health Agency is a voluntary health and welfare organization that conducts two programs: public health research and public health education.
a. Public support for general activities consisted of the following:
\begin{tabular}{|c|c|}
\hline Cash & \$ 60,000 \\
\hline Gross pledges & 295, 000 \\
\hline Estimated uncollectible pledges & 15,000 \\
\hline
\end{tabular}
b. During the year, several rummage sales were held to raise funds for general operations. Gross cash proceeds were \(\$ 17,000\), with \(\$ 4,000\) of direct costs paid in cash.
c. Terry Well, a former nurse, died. Her will provided \(\$ 50,000\) to be used as the board of directors saw fit.
d. Cash collected from pledges totaled \(\$ 230,000\). Pledges written off as uncollectible amounted to \$12,000.
e. Income from investments for the year totaled \$11,800, of which \(\$ 800\) represents dividends declared but not yet received. Income is unrestricted.
f. A health club was formed by the agency. Its members could use various facilities of the agency. Cash received from membership dues was \$1,700.
g. The following expenses were vouchered:
\begin{tabular}{|c|c|}
\hline Salaries and related expenses & \$171,900 \\
\hline Professional fees and expenses & 75,600 \\
\hline Administrative expenses & 35, 000 \\
\hline Rent expense & 19,700 \\
\hline Conference and meeting expenses & 16,900 \\
\hline Printing and distribution expenses & 19,200 \\
\hline Transportation expenses & 17,700 \\
\hline Provision for Uncollectible Contributions & 15,000 \\
\hline Total & \$371, 000 \\
\hline
\end{tabular}
h．A total of \(\$ 316,000\) in vouchers was paid．
i．A statement of functional expenses was prepared and showed the following allocations：

Programs：
Public health research．．．．．．．．．．．．．．．．．．．．．．．．．．．．\＄118， 300
Public health education．．．．．．．．．．．．．．．．．．．．．．．．．．．140，800
Supporting Services：
Management and general．．．．．．．．．．．．．．．．．．．．．．．．．．．．59，500
Fund－raising．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．． 5 52，400
Total．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．\＄371，000
＝＝＝＝＝＝＝＝

Required：
Prepare journal entries for these events．Charge the respective services for their share of expenses．

ANS：
a．Cas
60， 000
Contributions Receivable．．．．．．．．．．．．．．．．．．295，000
Contributions－－Unrestricted To record cash and pledges received．

Provision for Uncollectible Contributions．．15，000
Allowance for Uncollectible Contributions 15，000 To record estimated uncollectible contributions．
b．Cash
17,000
Special Events Support－－Unrestricted
17，000
To record proceeds from rummage sales．

Cost of Special Events．．．．．．．．．．．．．．．．．．．4，000
Cash．
To record payment of direct costs．
c．Cash．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．50，000
Legacies and Bequests－－Unrestricted．．．．．．50，000 To record legacy from Terry Well．
d．Cash．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．230，000
Allowance for Uncollectible Contributions．．12，000
Contributions Receivable
To record contribution collections and write－off．
e．Cash
11， 000
Accrued Investment Income．．．．．．．．．．．．．．．．．． 800
Investment Income－－Unrestricted
11,800 To record investment revenues．


DIF: D OBJ: 8
14. The Elder Citizens Agency is a voluntary health and welfare organization. The following events occur:
a. This year's fund drive resulted in unrestricted pledges totaling \(\$ 130,000\). Pledges of \(\$ 25,000\) were received for a special hot meal program.
b. Cash collected from pledges: unrestricted, \$100,000; restricted, \$18,000.
c. A philanthropist, who is an attorney, contributed a painting valued at \(\$ 4,000\), which is to be auctioned off at a Thanksgiving supper organized to raise funds for a legal assistance program for the elderly. The event was an unexpected success. The painting was sold for \(\$ 7,800\). Additional gross cash revenues were \(\$ 4,900\). Direct costs paid were \(\$ 1,700\).
d. The agency received \(\$ 11,000\) from the local division of United Way for general support.
e. Salaries amounted to \(\$ 70,000\), payroll taxes were \(\$ 6,000\), and other employee benefits amounted to \(\$ 10,000\). Of these items, \(\$ 5,000\) is unpaid.

Chapter 18
f. Arrangements have been made to have a local catering firm bring in a hot lunch. Senior citizens are charged \(\$ 0.75\) per meal. To date, payments to the catering service are \$2,300. Cash collections from the meal program service totaled \(\$ 900\).
g. It is estimated that \(10 \%\) of the remaining unrestricted pledges and \(5 \%\) of the remaining restricted pledges will prove uncollectible.
h. At the end of the previous year, \$10,000 of the balance of the Unrestricted Net Assets had been designated for a special program for handicapped elderly persons. The program was to be conducted during the current year if sufficient support could be generated. The idea was abandoned this year for lack of interest. The governing board authorizes the reclassification of the amount as undesignated.
i. The Elder Citizens Agency had budgeted \(\$ 500\) per month to rent space to conduct its general activities. A generous citizen permits the agency to occupy equivalent space at a nominal fee of \(\$ 100\) per year. The annual fee is paid, and the appropriate expense for the year is recorded.

Required:
Prepare journal entries to record the events.

ANS:
a. Contributions Receivable

155, 000
Contributions--Unrestricted
Contributions--Temporarily Restricted.
130, 000
25, 000
To record pledges received.
b. Cash

118, 000
Contributions Receivable
118, 000
To record collections on pledges.
c. Painting

4, 000
Contributions--Temporarily Restricted.
4,000
To record contribution of painting.

To record sale of painting.
Cash..................................... 4,900
Special Events Support--Temporarily Restricted........................

4,900
To record gross revenue from supper.
Cost of Special Events.................. 1, 700
Cash.................................... . .
1,700
To record direct costs paid.
\begin{tabular}{|c|c|c|}
\hline Cash & 11, 000 & \\
\hline Revenue--Federated and Nonfederated & & \\
\hline Campaigns--Unrestricted. & & 11,000 \\
\hline To record support from United Way. & & \\
\hline e. Salaries Expense. & 70,000 & \\
\hline Payroll Taxes & 6,000 & \\
\hline Employee Benefits Expense & 10,000 & \\
\hline Cash. & & 81,000 \\
\hline Accounts Payable & & 5,000 \\
\hline To record salary-related items. & & \\
\hline f. Cost of Hot Lunch Program. & 2,300 & \\
\hline Cash. & & 2,300 \\
\hline To record payments to caterer. & & \\
\hline Cash. & 900 & \\
\hline Program Services Fee--Unrestricted. & & 900 \\
\hline To record collection on meal program. & & \\
\hline g. Provision for Uncollectible Contributions Allowance for Uncollectible & 3,350 & \\
\hline Contributions. & & 3,350 \\
\hline To record estimated collectibles: & & \\
\hline Unrestricted: 10\% x (\$130,000 - & & \\
\hline \$100, 000) & & \\
\hline Restricted: 5\% x (\$25,000 - \$18,000) & & \\
\hline h. Unrestricted Net Assets--Undesignated.... & 10,000 & \\
\hline Unrestricted Net Assets--Designated for & & \\
\hline Handicapped Program............... & & 10,000 \\
\hline To reverse designation. & & \\
\hline i. Rent Expense. & 6,000 & \\
\hline Cash. & & 100 \\
\hline Contributions--Unrestricted. & & 5,900 \\
\hline To record rent expense for the year and contribution of space. & & \\
\hline
\end{tabular}

DIF: D
OBJ: 8
15. The following events are for the Public Health Agency, a voluntary health and welfare organization that conducts two programs: public health research and public health education:
a. The agency received a donation of capital stock with a market value of \$200,000, with the stipulation that the income and principal may be used only for additions to plant.
b. An adjoining building and land were purchased at a cost of \(\$ 600,000\). A \(10 \%\) cash down payment was made. A mortgage note for the remainder was signed.
c. Unused sterilizers with a cost of \(\$ 15,000\) and a book value of \$5,000 were sold for \$3,000 cash.
d. New sterilizers costing \(\$ 28,000\) were purchased.
e. A payment of \(\$ 90,000\) was made to cover semiannual mortgage
```

    interest of $20,000 and reduction of principal of $70,000.
    f. Annual depreciation of \$180,000 was recorded.
g. The directors approved the following percentages for
allocating all expenses (but not losses) of the Plant Fund:
Public health research program......................................
Public health education program................. 40%
Management and general services.................. 10%
Fund-raising services............................. 20% 20%
Total............................................
====
Required:
Prepare the journal entries for the events.
ANS:

| a. Investments............................. | 200, 000 |  |
| :---: | :---: | :---: |
| Contributions--Temporarily Restricted. To record receipt of donated capital stock. |  | 200,000 |
| b. Land, Building, and Equipment | 600, 000 |  |
| Cash. |  | 60,000 |
| Mortgage Note Payable |  | 540, 000 |
| To record purchase of land and building. |  |  |
| c. Cash. | 3,000 |  |
| Accumulated Depreciation $(\$ 15,000-\$ 5,000) \ldots .$ | 10,000 |  |
| Loss on Sale of Equipment | 2,000 |  |
| Land, Building, and Equipment. |  | 15,000 |
| To record sale of old sterilizers. |  |  |
| d. Land, Building, and Equipment | 28,000 |  |
| Cash................ |  | 28,000 |
| To record purchase of new sterilizers. |  |  |
| e. Interest Expense. | 20,000 |  |
| Mortgage Note Payable | 70,000 |  |
| Cash. |  | 90,000 |
| To record mortgage interest and principal paid. |  |  |
| f. Depreciation Expense. | 180, 000 |  |
| Accumulated Depreciation...... |  | 180,000 |
| To record annual depreciation. |  |  |

```


DIF: D OBJ: 8
16. The Community Drug Clinic is a voluntary health and welfare organization that conducts two programs: drug abuse research and drug abuse education. An inexperienced accountant recorded the following entries:

\section*{a.}

Pledges Receivable
200, 000
Income
To record signed pledges received. Of the total, \(20 \%\) must be used for a special local college program. It is estimated that \(5 \%\) of the unrestricted pledges will prove uncollectible.
b. Cash

Income
200, 000 pledges will prove uncollectible.

100, 000
Received money from a successful business person, formerly a drug addict. Amount must be used to acquire a building for the clinic's program.
c. Building, etc Cash

100,000
To record down payment on land, building, and equipment with funds received in step (b). A mortgage note was signed for an additional \$150,000.
d. Cash

Income
15,000
To record amount received for general operations from the will of the former mayor, who died.
e. Cash

Pledges Write-Off Expense................
120, 000
Pledges Receivable
5, 000
To record collection of all pledges for special college program (step a) and partial collection and some write-offs for remaining pledges.


\section*{Required:}

Omitting explanations, prepare the correct entries, including the entry to assign expenses to programs and services. Assume that the incorrect entries of the previous accountant are reversed prior to your entries.

ANS:
\begin{tabular}{|c|c|c|}
\hline a. Contributions Receivable & 160,000 & \\
\hline Contributions--Unrestricted & & 160,000 \\
\hline Contributions Receivable. & 40,000 & \\
\hline Contributions--Temporarily Restricted To record pledges. & & 40, 000 \\
\hline Provision for Uncollectible Contributions.. & 8,000 & \\
\hline Allowance for Uncollectible Contributions & & 8,000 \\
\hline To record uncollectibles. & & \\
\hline b. Cash. & 100, 000 & \\
\hline Contributions-Temporarily Restricted & & 100, 000 \\
\hline To record building contribution. & & \\
\hline
\end{tabular}
\begin{tabular}{|c|c|c|c|}
\hline & Building & 250,000 & \\
\hline & Cash & & 100,000 \\
\hline & Bonds Payable. & & 150,000 \\
\hline & To record acquisition of fixed assets. & & \\
\hline & Reclassification Out--Temporarily & & \\
\hline & Restricted-- & & \\
\hline & Satisfaction Of Plant Acquisition & & \\
\hline & Restrictions.. & 100,000 & \\
\hline & Reclassification In--Unrestricted-- & & \\
\hline & Satisfaction of Plant Acquisition & & \\
\hline & Restrictions & & 100,000 \\
\hline & To adjust fund balances for cash payment. & & \\
\hline d. & Cash & 15,000 & \\
\hline & Legacies and Bequests--Unrestricted. & & 15,000 \\
\hline & To record amount received from will of former mayor. & & \\
\hline e. & Cash & 120,000 & \\
\hline & Allowance for Uncollectible Contributions. & 5,000 & \\
\hline & Contributions Receivable.............. & & 125,000 \\
\hline & To record collection and write-off of pledges. & & \\
\hline f. & Equipment & 14,000 & \\
\hline & Cash. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . & & 14,000 \\
\hline & To record equipment purchased for Plant Fund. & & \\
\hline \(g\). & Operating Expenses & 100,000 & \\
\hline & Cash. & & 100,000 \\
\hline & Reclassification Out--Temporarily & & \\
\hline & Restricted, Satisfaction of Program & & \\
\hline & Restrictions.................. & 20,000 & \\
\hline & Reclassification In--Unrestricted, & & \\
\hline & Satisfaction of Program Restrictions & & 20,000 \\
\hline & To record payments. & & \\
\hline h. & Depreciation Expense. & 4,000 & \\
\hline & Accumulated Depreciation. & & 4,000 \\
\hline & To record depreciation. & & \\
\hline i. & Research Expense. & 42,000 & \\
\hline & Education Expense. & 34,800 & \\
\hline & Management Expense & 18,800 & \\
\hline & Fund Raising Expense & 16,400 & \\
\hline & Provision for Uncollectibles & & 8,000 \\
\hline & Operating Expenses & & 100,000 \\
\hline & Depreciation Expense. & & 4,000 \\
\hline & To assign expenses to programs and & & \\
\hline & services in accordance with percentages provided. & & \\
\hline
\end{tabular}
17. In the year 2005, a group of merchants in the community of Gunning organized a merchant group, The Gunning Group, in an effort to work together to increase business to Gunning area merchants. Each member pays dues of \(\$ 200\) per year for operations and fund raising. All dues were collected in 2005. Other group activities for 2005 were as follows:

Net Receipts-July 4 food/beverage booth \(\$ 35,000\)

\section*{Unrestricted Donation \$50,000}

Investment of Donation made into Marketable Securities \(\$ 40,000\)
Interest earned on Investment
\$ 3, 200
Program Expenses such as advertising Paid \$18,500
Receipt of Contribution restricted to Speaker Fees \$ 5,000
for the year 2001/2002
Expense made in compliance with donor restrictionSpeaker Fee paid for annual meeting of merchants \$ 1,500
Received a Government Grant to encourage minority business development in Gunning \(\$ 15,000\)
Expenses incurred in conjunction with provision of the grant \$8,000

Make the necessary entries to account for the above listed transactions.

ANS:
\begin{tabular}{|c|c|c|}
\hline Cash. & 20,000 & \\
\hline Revenues-Unrestricted. & & 20,000 \\
\hline To record membership dues & & \\
\hline Cash. & 35,000 & \\
\hline Revenues-Unrestricted. & & 35,000 \\
\hline To record July 4 booth receipts & & \\
\hline Cash. & 50,000 & \\
\hline Revenues-Unrestricted Contribution To record unrestricted donation & & 50,000 \\
\hline Investments. & 40, 000 & \\
\hline Cash. & & 40,000 \\
\hline Record investment in marketable securities & & \\
\hline Cash. & 3,200 & \\
\hline Revenue-Unrestricted & & 3,200 \\
\hline Operating Expenses. & 18,500 & \\
\hline Cash.. & & 18,500 \\
\hline Cash. & 5,000 & \\
\hline Revenues-Temporarily Restricted Contributions & & 5,000 \\
\hline Expenses. & 1,500 & \\
\hline Cash. & & 1,500 \\
\hline Record speaker fee paid in compliance with & nor rest & \\
\hline
\end{tabular}
Reclassification Out-Temporarily
    Restricted-Satisfaction of Donor
    Restrictions................... 1,500
    Reclassification in-Unrestricted-
                Satisfaction of Donor Restrictions
Cash.................................. 15,000
        US Government Grants Refundable..
Expenses............................. 8,000
    Cash...............................
US Government Grants Refundable.......
    Revenues-Unrestricted
    8,000
    8,000
DIF: M
    OBJ: 10
[[Insert ANSWER 18-1 from Excel spreadsheet]]

\section*{Chapter 19 - Accounting for Not-for-Profit Colleges and Universities and Health Care Organizations}

\section*{MULTIPLE CHOICE}
1. What is the basis of accounting used in accounting for not-for-profit universities?
a. fund accounting
b. accrual basis
c. modified accrual basis
d. cash basis

ANS: B DIF: E OBJ: 1
2. With the adoption of GASB statement \#35 in 1999, public colleges and universities are required to report their activities in a manner more like \(a(n)\) :
a. general fund
b. special revenue fund
c. enterprise fund
d. fiduciary fund

ANS: C DIF: M OBJ: 1
3. Currently, which organization has jurisdiction over accounting and reporting standards for private colleges and universities?
a. National Association of College and University Business Officers
b. the Governmental Accounting Standards Board
c. the Financial Accounting Standards Board
d. the U.S. Department of Education

ANS: C DIF: E OBJ: 1
4. Under new governmental standards, which of the following financial statements is required for the annual financial reports of public colleges and universities?
a. statement of revenues, expenses, and changes in net assets
b. statement of activities
c. single audit report
d. statement of changes in fund balances

ANS: A DIF: M OBJ: 1
5. Which of the following is NOT an example of one of the major categories of funds for a college or university?
a. current funds
b. proprietary funds
c. plant funds
d. trust and agency funds

ANS: B
DIF: E
OBJ: 1
6. Which of the following is NOT an example of Educational and General Revenue in a college or university?
a. student athletic fees
b. room and board fees received by the dormitory
c. governmental grants
d. endowment income

ANS: B
DIF: E
OBJ: 2
7. Which of the following receipts should be recorded in the restrictedcurrent fund of a public university?
a. endowment income to provide for faculty travel
b. a cash donation to provide loans to students
c. a cash donation to provide scholarships
d. a state-funded research grant

ANS: C
DIF: M
OBJ: 3
8. Which of the following is not an example of general and educational expenses recorded by a college or university?
a. purchase of sweatshirts for sale in the college bookstore
b. expenses paid for instructors in the continuing education, nondegree program
c. consultant fees paid for a report on increasing the enrollment
d. salary of the football coach

ANS: A
DIF: E
OBJ: 2
9. Where should an alumnus contribution of \(\$ 10,000\) to pay for scholarships
for international study-abroad be accounted for?
a. scholarship fund
b. current-unrestricted fund
c. current-restricted fund
d. loan fund

ANS: C DIF: M OBJ: 2
10. A public university's long-term bonds issued to build dormitories would
be recorded in the
a. Current-Unrestricted Fund.
b. Agency Fund.
c. Retirement of Indebtedness Plant Fund.
d. Investment in Plant Fund.

ANS: D DIF: M OBJ: 2
11. As expenses are made in compliance with donor restrictions on previously made contributions, what type of journal entry must be made to record the transaction from the aspect of the current, unrestricted fund?
a. Reclassification Out-Temporarily Restricted Satisfaction of donor restriction Reclassification In-Temporarily

Restricted -Satisfaction of donor restriction XXX
b. Cash

XXX
Revenue-Temporarily Restricted Contributions XXX
Revenue-Unrestricted
XXX
d. Interfund Transfer out-Temp Restricted XXX Interfund Transfer In-Unrestricted

XXX

ANS: A DIF: M OBJ: 3
12. Al Alumni donates \(\$ 5,000,000\) to Great University for a new Women's Studies program. Al wants the principal to remain intact but the investment earnings can be expended to support the Women's Studies Program. This donation would be accounted for in the
a. Quasi-Endowment Fund.
b. Endowment Fund.
c. Term Endowment Fund.
d. Agency Fund.

ANS: B
DIF: E
OBJ: 3
13. The quasi-endowment fund of a University would account for funds set aside by
a. the governing board of the University for a future purpose.
b. a donor who is uncertain how they want the funds spent.
c. a legal restriction on an endowment which may change.
d. a trustee who makes the donation contingent upon a future event.

ANS: A
DIF: E
OBJ: 3
14. The loan fund would account for loans
a. to hospital patients.
b. to purchase assets.
c. to University students.
d. due to another fund.

ANS: C DIF: E OBJ: 4
15. Government grants, like Pell Grants, which are essentially pass through financial aid to students are accounted for as
a. temporary restricted funds
b. unrestricted funds
c. loan funds
d. agency transactions

ANS: D
DIF: M
OBJ: 4
16. Frank Bowers decides to contribute \(\$ 1,000,000\) to his almamater. Cape University agrees to pay Frank a fixed amount every month for the next 20 years in exchange for the donation. Frank's donation would be accounted for in the
a. Annuity Fund.
b. Endowment Fund.
c. Restricted Current Fund.
d. Agency Fund.

ANS: A DIF: M OBJ: 4
17. Farley College budgets funds for the maintenance and repair of its
buildings. Where would these funds be accounted for?
a. Unexpended Plant Fund
b. Renewal and Replacement
c. Retirement of Indebtedness
d. Investment in Plant

ANS: B DIF: E OBJ: 4
18. The Great Gap University issues long-term debt to build a bridge over the gap between its two main campuses. The debt would be accounted for
in the
a. Unexpended Plant Fund.
b. Plant Fund for Renewals and Replacement.
c. Plant Fund for Retirement of Indebtedness.
d. Investment in Plant.

ANS: D DIF: M OBJ: 4
19. Which of the following is a mandatory transfer by a University?
a. preliminary design fees to an architect to plan a building
b. purchase of land
c. principal and interest payments on long-term debt
d. dormitory maintenance.

ANS: C DIF: M OBJ: 4
20. Income earned on restricted endowment resources should
a. remain in the endowment fund.
b. be transferred and recorded directly in the unrestricted fund.
c. be recorded in the endowment fund with a liability established for future transfer to an unrestricted fund.
d. transferred immediately and recorded directly to the fund the donor designate to receive the income/benefit.

ANS: D
DIF: M
OBJ: 3
21. A pledge is unconditional if it
a. depends only on the passage of time.
b. depends on the demand by the university to be paid.
c. can be spent on any purpose.
d. \(a\) and \(b\) are correct.

ANS: D DIF: E OBJ: 3
22. A contribution is a(n)
a. conditional transfer of cash.
b. unconditional transfer of cash.
c. donation of services which would not be purchased otherwise.
d. donation of unskilled services which you might purchase.

ANS: B DIF: E OBJ: 3
23. Contribution of a work of art to a museum for public exhibit would be
a. recognized as a contribution at fair market value.
b. recognized as operating revenue based upon admission fees.
c. recognized as an asset subject to depreciation.
d. not be recognized as a contribution.

ANS: D
DIF: M
OBJ: 3
24. A life income fund is used when:
a. resources are accepted with a stipulation that periodic payments will be made to the donor for a specified number of years
b. endowments are made to the college or university
c. resources are accepted with a stipulation that periodic payments will be made to the donor for the lifetime of the donor
d. All income earned on donated assets is to be paid to the donor over their lifetime.

ANS: D
DIF: M
OBJ: 3
25. Endowment income was restricted to student aid activities. Cash is paid
for all activities. Which is the credit necessary for classification?
a. Reclassification In--unrestricted, satisfaction of program restrictions
b. Reclassification Out--unrestricted, satisfaction of program restrictions
c. Reclassification In--temporarily restricted, satisfaction of program restrictions
d. Reclassification Out--temporarily restricted, satisfaction of program restrictions.

ANS: A DIF: M OBJ: 4
26. A federal grant was received for research. Which is the correct credit?
a. Deferred Revenue--U.S. Government grants
b. Revenues--U.S. Government grants
c. U.S. Government grants refundable
d. Revenues, Temporarily restricted

ANS: C
DIF: M
OBJ: 3
27. A collection of first editions is donated to the university for its library. Which is the correct credit?
a. Net investment in Plant
b. No entry is required
c. Revenues, temporarily unrestricted contributions
d. Fund Balance, restricted

ANS: B
DIF: M
OBJ: 3
28. Which of the following is not correct?
a. The difference in private vs. public colleges or universities focuses on expenses rather than expenditures.
b. All expenses are changes in unrestricted net assets.
c. Expenses denote outlays of resources.
d. Expenses denote "using up" of resources.

ANS: C DIF: E OBJ: 2
29. Differences in accounting for private colleges and universities as compared to public universities do not include which of the following:
a. Financial statements may be presented on a fund group basis.
b. A statement of cash flows is not required.
c. Donor restricted contributions and unconditional pledges are recognized as revenue in the period received or promised.
d. Donated services may be recognized as contributions if they meet FASB criteria.

ANS: B DIF: M OBJ: 1
30. A contribution is given without donor restrictions. Under which fund group would this be recorded?
a. Current unrestricted funds
b. Current restricted funds
c. Loan fund
d. Endowment fund

ANS: A
DIF: E
OBJ: 3
31. In which of the plant fund subgroups would you find the following transaction: A bond principal payment is made on a bond that was issued with the proceeds being designated for construction of a new athletic facility?
a. Unexpended plant fund
b. Investment in plant asset
c. Plant fund for retirement of indebtedness
d. plant fund for renewals

ANS: C
DIF: M
OBJ: 4
32. Which of the following is an example of an interfund transaction?
a. A retired professor donates \(\$ 100,000\) to be used for student aid.
b. Investments and \$18,000 from Annuity fund investment is received.
c. A construction contract is completed and paid in full.
d. Cash is set aside for payment of a mortgage.

ANS: D DIF: M OBJ: 4
33. The Board of Trustees decides to set aside \(\$ 30,000\) to consider purchasing additional land on the first day of the next fiscal year. What type of transfer is this?
a. Mandatory
b. Restricted
c. Discretionary (or nonmandatory)
d. Unrestricted

ANS: C DIF: M OBJ: 4
34. Which university fund is most similar to the governmental general fund?
a. Agency
b. Annuity and Life income
c. Current-unrestricted
d. Loan

ANS: C DIF: E OBJ: 4
35. Health care revenue recognition is determined by:
a. The gross amount being charged for patient services
b. The contracted amount to be paid, calculated by third party payers
c. Gross charges for patient services, less an allowance for bad debt
d. Cost allocation model designed by the physician or hospital

ANS: B DIF: E OBJ: 7
36. Alice makes a cash gift which has no strings attached to a not-forprofit hospital. It is recorded as:
a. Patient Service Revenue.
b. Other Operating Revenue--Unrestricted Contribution.
c. Nonoperating Revenue--Unrestricted Contribution.
d. an increase in the fund balance of the General Fund.

ANS: A DIF: E OBJ: 8
37. Atlee makes a cash gift to a not-for-profit hospital which is
restricted by the donor to buy toys for the pediatric ward. It should
be recorded in the:
a. General Fund.
b. Specific-Purpose Fund.
c. Endowment Fund.
d. Enterprise Fund.

ANS: A
DIF: E
OBJ: 8
38. A public or governmental healthcare organization would provide which of the following combinations of financial statements to their users?
a. Statement of Activities; Statement of Financial Position; Statement of Cash Flows
b. Statement of Net Assets; Statement of Revenue, Expenses, and Change in Net Assets; Statement of Cash Flows
c. Statement of Activities; Statement of Financial Position; Statement of Cash Flows
d. Statement of Net Assets; Statement of Functional Expenses; Statement of Cash Flows

ANS: B
DIF: E
OBJ: 11
39. Plant replacement and expansion funds account for:
a. landscaping.
b. long-term debt issued to purchase buildings.
c. land
d. resources for improving or constructing the physical plant.

ANS: A DIF: E OBJ: 7
40. Other Operating Revenue includes:
a. revenues from outpatient surgery.
b. revenues from educational programs.
c. revenue from nursing services for post-operative care.
d. revenue from radiology services.
ANS: A
DIF: E
OBJ: 7
41. Malpractice claims recorded as IBNR claims represent
a. an estimated amount of current lawsuits pending in court
b. claims asserted and filed, but not settled on the balance sheet date
c. estimated claims for incidents occurring before the balance sheet date with no claim filed as of yet
d. estimated amount of malpractice loss not covered by physician's malpractice insurance

ANS: C
DIF: M
OBJ: 9
42. The account, Cash--Limited in Use Under Malpractice Funding

Arrangement, would be found in the:
a. Trust Account for self-insurance.
b. Specific-Purpose Funds
c. Annuity Funds.
d. Endowment Funds.

ANS: A
DIF: M
OBJ: 9

\section*{PROBLEM}
1. Carlton (private) University received the following pledges during 20X5:
a. Jane Baker pledges \(\$ 30,000\) to be used for student scholarships.
b. As a result of a pledge drive, \(\$ 400,000\) is pledged to be paid by the end of the accounting year. Ten percent of pledges in the past have been shown to be uncollectible. These pledges are unrestricted.

Required:
Make the journal entries necessary to record the pledges.

ANS:
a. Accounts (Pledges) Receivable............ 30,000

Revenues--Temporarily Restricted Private Gifts and Grants............ 30,000
b. Accounts (Pledges) Receivable............ 400,000

Revenues--Unrestricted Private
Gifts and Grants................... 400,000
Provision for Uncollectible Accounts..... 40,000
Allowance for Uncollectible Accounts... 40,000

DIF: E OBJ: 3
2. The registrar at Eastern West Virginia (public) University has summarized the current semester's student fees and tuition as follows:
\begin{tabular}{|c|c|}
\hline Original gross amount assessed st & \$3,600, 000 \\
\hline \multicolumn{2}{|l|}{Refunds of original amounts assessed paid} \\
\hline to students who dropped classes & 200, 000 \\
\hline \multicolumn{2}{|l|}{Tuition remissions to disadvantaged} \\
\hline students & 150, 000 \\
\hline Scholarships granted to students, paid & \\
\hline from Unrestricted Current Funds & 250, 000 \\
\hline
\end{tabular}

Required:
Determine the following for the Statement of Current Funds Revenues, Expenses, and Other Changes:
a. The revenues from student tuition and fees
b. The expense for student aid

ANS:


DIF: M
OBJ: 4
3. The following selected transactions affected the Unrestricted Current Funds of Tiger State University (public) during the current fiscal year:
a. The Board of Control approved a budget estimating \(\$ 10,000,000\) in revenues and expenses of \(\$ 9,850,000\).
b. Student tuition assessed during the year was \$4,000,000, of which \$3,700,000 had been collected, with 3\% considered uncollectible.
c. Student aid included \$500,000 in cash scholarships and \$75,000 in tuition remission.
d. Salary and wages during the year included \$5,500,000 for instruction, \$500,000 for academic support, and \$700,000 for institutional support.
e. Transfers to the Plant Funds included \(\$ 450,000\) in transfers for a mortgage payment and \$155,000 in discretionary transfers.
f. A grant received of \(\$ 10,000\) in cash was restricted to use for laser technology research.

Required:
Make the journal entries necessary to record the selected transactions.

ANS:
a. Estimated Revenues......................... 10,000,000
Estimated Expenses................. 9,850,000 Unallocated Balance.................... 150,000
b. Accounts Receivable...................... 4, 000,000

Revenues--Student Tuition and Fees.... 3,880,000
Allowance for Uncollectibles.......... 120,000
Cash
3,700,000
Accounts Receivable
3,700, 000

Accounts Receivable--Tuition and Fees..
d. Expenses--Instruction

Expenses--Academic Support.
Expenses--Institutional Support Cash \(\qquad\)
. Fund Balance (Nonmandatory Transfer).
.....


5,500, 000 700, 000 700, 000

155, 000
450, 000
575, 000
500, 000
75,000 500, 000
\(6,700,000\)

605, 000
f. No entry; recorded in Restricted Current Fund.

DIF: M OBJ: 4
4. The following selected transactions affected the Franklin State (public) University during the current fiscal year:
a. Student tuition and feels billed for the year for \(\$ 8,000,000\), which was used for educational and general purposes. Prior experience shows \$100,000 will be uncollectible.
b. \(\$ 7,200,000\) of the billings in 'a' were collected.
c. Unrestricted income from endowment funds amounted to \(\$ 185,000\).
d. Auxiliary enterprise included \$175,000 form student residence halls; \$200,000 from cafeterias; and \$750,000 from the college store sales. All amounts have been collected.
e. \$300,000 of Term Endowments funds are now available for unrestricted use.
f. Operating Expenses are as follows: Instruction \(\$ 300,000\); Research \$150,000; Academic Support \$50,000; Student Services \$25,000; Institutional Support \$120,000
g. University's student aid committee granted student tuition and fee reductions of \$200,000.
h. Auxiliary expenses amounted to \(\$ 750,000\)
i. The trustees have specified certain current fund revenues must be transferred to meet the debt service provisions relating to the university's institutional properties. These mandatory transfers amount to \$550,000.

\section*{Required:}

Make the journal entries necessary to record the selected transactions.

ANS:
a. Accounts Receivable

8,000,000
Revenue-Student Tuition and Fees.

Expenses-instruction
Allowance for Bad Debt
100,000

7,200,000
Accounts Receivable
c. Cash

Revenue-Endowment Income
185, 000
d. Cash
\(1,125,000\)

Revenue-Auxiliary Enterprises \(\qquad\)

300, 000
Revenue-Endowment Income 300, 000
f. Expenses-Instruction

300, 000
Expenses-Research
150,000
Expenses-Academic Support 50, 000
Expenses-Student Services
50, 000
25,000
Expenses-Instituitional Support..... 120,000
Cash
645, 000
g. Expenses-Student Aid........... 200,000

Accounts Receivable
200,000
h. Expenses-Auxiliary Services........ 750,000

Cash
i. Transfer Out-Plant Funds........... 550,000

1,125,000
e. Cash

000

645, 000

200, 000

750, 000

Cash
550, 000

DIF: D
OBJ: 4
5. The following events involve a loan fund of East York public University:
a. To establish the Hanson Student Loan Fund, two brothers donated \(\$ 40,000\) cash and securities that cost \(\$ 80,000\). Market value of the securities at time of donation was \$160,000.
b. The securities were later sold for \(\$ 189,000\). The original agreement stipulated that any gain on the sale or income received from the securities be added to the loan fund.
c. An appreciative board of trustees transferred \(\$ 30,000\) cash from the Unrestricted Current Fund to the loan fund.
d. Loans of \(\$ 140,000\) were made to students at \(6 \%\) annual interest.
e. The board of trustees agreed that loans to students in the amounts of \(\$ 9,000\) were uncollectible. At year end, the board took action to write off the uncollectible loans outstanding of \$9,000.

\section*{f. Collections on Hanson loans amounted to \(\$ 13,000\) plus \(\$ 450\) in interest.}

Required:
Prepare journal entries to record the above events.

ANS:
a. Cash

40, 000
Investments 160, 000
Fund Balance--Restricted................
200, 000
To record establishment of Hanson Loan Fund.
b. Cash

189, 000
Investments
160, 000
Fund Balance--Restricted 29,000
To record sale of investments.
c. Cash

30, 000
Fund Balance--Unrestricted
30,000 To record discretionary transfer from Unrestricted Current Funds.
d. Loans Receivable......................... 140,000

Cash.................................. 140,000
To record loans made.
e. Fund Balance--Restricted................. 9,000

Loans Receivable.......................
9,000
To record uncollectible student loans made from restricted funds.
f. Cash........................................ 13 ,... 450
Loans Receivable....................... 13,000

Fund Balance--Restricted.............. 450
To record loan repayments and interest.

DIF: M OBJ: 4
6. The following selected transactions affecting the Annuity and Life Income Funds of Tremper State University (public) occurred during the current fiscal year.
a. Upon his death, John Sooner, a local businessman, donates a portfolio of stock with a cost basis of \$100,000 and a market value of \(\$ 125,000\). John's wife is to receive an annuity of \(\$ 8,000\) per year for life. Her life expectancy is ten years. An estimated rate of return of \(8 \%\) yields a present value of \(\$ 53,681\) for the annuity.
b. Dividends of \(\$ 7,500\) are received from Life Income Fund investments.
c. Annuity fund investments with a book value of \(\$ 6,000\) are sold
for \$6,500.
d. The beneficiary of the life income investments described in part (b) are paid.
e. The first annuity payment to John Sooner's wife is made from part (a).

Required:
Make the journal entries necessary to record the transactions.

ANS:
a. Investments--Annuity..................... 125,000

Annuities Payable....................... 53,681
Annuity Fund Balance................. 71,319
b. Cash-Life Income........................ 7,500

Life Income Payable................... 7,500
c. Cash-Annuity........................... 6,500

Investments--Annuity.................. 6,000
Annuity Fund Balance................ 500
d. Life Income Payable...................... 7,500

Cash--Life Income................... 7,500
e. Annuities Payable........................ 8,000

Cash--Annuity......................... . .
8,000
Annuity Fund Balance.................. 593
Annuities Payable
593

DIF: D
OBJ: 4
7. Records of the items that follow are maintained in a public university's Plant Fund. Fill in the name or names of the appropriate plant subgroup funds in which the items are recorded.

Plant Subgroup Funds
(1) Plant assets which were acquired with Unrestricted Current Funds
1. \(\qquad\)
(2) Accumulation of resources to keep plant in operating condition
2. \(\qquad\)
(3) Accumulation of resources for acquiring properties
3. \(\qquad\)
(4) Accumulation of resources to pay interest and principal of Plant Fund debt
4. \(\qquad\)
(5) Recording of long-term liabilities related to plant assets
5. \(\qquad\)
(6) Receipt of proceeds from bond issue floated to cover cost of construction project
6. \(\qquad\)
(7) Recording of construction in progress on project mentioned in item 6........
. \(\qquad\)
(8) Two subgroups affected by completion of construction project mentioned in item 7
8. \(\qquad\)
(9) Recording of receipt of donated land...
9. \(\qquad\)
(10) Two subgroups affected by payment of mortgage that is a lien on plant
assets
10. \(\qquad\)

ANS:
(1) Investment in Plant Fund
(2) Plant Fund for Renewals and Replacement
(3) Unexpended Plant Fund
(4) Plant Fund for Retirement of Indebtedness
(5) Investment in Plant Fund
(6) Unexpended Plant Fund
(7) Unexpended Plant Fund
(8) Transfer from Unexpended Plant Fund to Investment in Plant Fund
(9) Investment in Plant Fund
(10) Payment is recorded in Retirement of Indebtedness Plant Fund. Mortgage reduction is recorded in the Investment in Plant Fund.

DIF: M OBJ: 4
8. Southern Coast (private) University received the following pledges during 20X4:
a. Joy Dance pledges \(\$ 60,000\) to be paid over a three-year period beginning at the end of this year. Southern Coast discounts this contribution at 10\%. The present value is \$49,737.
b. As a result of a pledge drive, \(\$ 500,000\) is pledged to be paid by the end of the accounting year. Ten percent of pledges in the past have been shown to be uncollectible.

Required:
Make the necessary journal entries to record the pledges.

ANS:
a. Contributions Receivable............... 49,737

Revenue--Unrestricted Contributions.... 49,737
b. Contributions Receivable................ 500,000

Revenue--Unrestricted Contributions...
500, 000
Provision for Doubtful Contributions.... 50,000
Allowance for Doubtful Contribution... 50,000

DIF: M OBJ: 3
9. Prepare the journal entries to record the following events for Cost (private) University:
a. A federal grant of \(\$ 100,000\) was received for research.
b. Expenses for the research project totaled \(\$ 50,000\) to date.
c. Endowment income of \(\$ 10,000\) is restricted to student aid activities.
d. All but \(\$ 2,000\) of expenses are paid for student aid.

ANS:
a. Cash

100, 000
U.S. Government Grants Refundable..... 100,000
b. Expenses--Research......................... 50,000

Cash...................................... . .
50, 000
U.S. Government Grants Refundable

50, 000
Revenues--Unrestricted Government Grants and Contracts

50, 000
c. Cash

10,000
Revenues--Temporarily Restricted for Endowments.

10,000
d. Expenses........................................... . . 10 . 000

Cash............................................
Accounts Payable
8,000
eclassification Out--
Temporarily Restricted--
Satisfaction of Program Restrictions. 10,000
Reclassification In--Unrestricted-Satisfaction of Program Restriction.

10, 000

DIF: M OBJ: 4
10. Consider the following transactions for the University of Northland (private):
a. On January 1st a gift of \(\$ 100,000\) was received from an alumnus. She requested one half be used for student loans and the other as a pure endowment contribution.
b. Loans totaling \(\$ 25,000\) are made to students. Collections from other loans made to students total \(\$ 30,000\) plus \(\$ 3,000\) interest.
c. During the year, investments of \(\$ 20,000\) were sold for \(\$ 30,000\). Any gain is restricted for improvements in classroom instruction.
d. During the year, interest charges of \(\$ 5,000\) were earned and collected on late student fee payments.
e. A student loan of \(\$ 500\) is deemed uncollectible.
f. During the year, operating expenses of \(\$ 150,000\) were recorded. At the end of the year, \(\$ 25,000\) remains unpaid.

Required:
Prepare journal entries necessary to record the transactions.

ANS:
a. Cash

Contributions--Temporarily Restricted.. Contributions--Permanently Restricted..

100, 000
b. Loans Receivable.

Cash.
Reclassification Out-Temporarily Restricted-Satisfaction of Program Restrictions. 25,000 Reclassification In--Unrestricted-Satisfaction of Program Restriction..

Cash
Loans Receivable............................. Revenues--Unrestricted Interest Income.

50,000
50,000
25, 000
25,000

25,000
33, 000
30,000
3,000
\begin{tabular}{|c|c|c|}
\hline c. Cash & 30,000 & \\
\hline Investment & & 20,000 \\
\hline Gain on Sale of Investment-- & & \\
\hline Temporarily Restricted & & 10,000 \\
\hline d. Cash & 5,000 & \\
\hline Interest Income--Unrestricted & & 5,000 \\
\hline e. Loans Cancellation/Write Offs & 500 & \\
\hline Loans Receivable. & & 500 \\
\hline Expenses--Institutional Support & 500 & \\
\hline Loans Cancellation/Write Offs & & 500 \\
\hline f. Expenses--Institutional Support & 150,000 & \\
\hline Cash. & & 125, 000 \\
\hline Accounts Payable & & 25,000 \\
\hline
\end{tabular}

DIF: M OBJ: 4
11. The following events occurred as part of operations in Hard Knocks (private) University:
a. To construct a new computer center, the University floated at par a \$10,000,000 10\% serial bond issued on January 1, paying interest December 31 and June 30.
b. \$100,000 for computer equipment was donated by a wealthy alumnus.
c. Payments for construction to date total \(\$ 5,000,000\).
d. Interest payments are made on June 30th.
e. Construction of the center is completed at an additional cost of \(\$ 7,000,000\) and it is paid in full.
f. The first serial bond of \(\$ 2,000,000\) plus interest is paid.
g. A building valued at \(\$ 100,000\) is received as a gift on the condition the university assumes the \(\$ 50,000\) mortgage and uses the building for classroom purposes only. The University elects to "release" the restriction over the useful life of the building.
h. Depreciation on the building totaled \$10,000.

Required:
Prepare journal entries for the above events.

ANS:
a. Cash............................................. 10, 000,000

Bond Payable.................................. 10,000,000
b. Cash

100, 000
Revenues--Temporarily Restricted
100,000
c. Construction In Progress................... 5,000,000 Cash. 100, 000
Interest Expense Cash

100,000
e. Computer Center............................... . 12, 000,000 Construction In Progress.................. Cash

2,000,000
f. Mortgage Payable

Expenses Institutional Support-Interest Expense

100, 000 Cash

100, 000
 Contributions, Temporarily Restricted..

50, 000
h. Expenses--Operations and Maintenance of Plant--

Depreciation Expense.................. 10,000
Accumulated Depreciation
10,000
Reclassification Out--
Temporarily Restricted-Satisfaction of Plant Restrictions... 10,000 Reclassification In-Unrestricted Satisfaction of Plant Restrictions

10,000

DIF: D
OBJ: 4
12. Consider the following events affecting Private University:
a. A \(\$ 2,000,000,10 \%\) serial bond issue, paying interest semiannually, was sold at face value on an interest payment date. Proceeds of the bond issue are to be used to add a wing to the library.
b. A lot valued at \(\$ 30,000\) was donated by a former librarian to permit building of the proposed library wing. No permanent restrictions were stipulated by the donor.
c. The State Building Board approved the plans submitted by the architect, who was paid \(\$ 20,000\). A contract for \(\$ 1,900,000\) was signed for construction of the library wing.
d. The bond interest was paid.
e. At year end, approximately two-thirds of the construction was completed. A payment of \(\$ 1,200,000\) was made to the contractor.
f. Tuckpointing and other repairs to university buildings amounting to \(\$ 35,000\) were paid from resources previously provided specifically for that purpose by a retired faculty member.
g. The library wing was completed. The remaining contract price is paid, and the building cost and bond payable are transferred to the proper fund.
h. Payments of the second six months' interest on bonds ( \(\$ 100,000\) ) and the first bond serial (\$200,000) were made.
i. A donation made last year by a public accounting firm was expanded to acquire a specified collection of books on accounting, dating back to the 16th and 17th centuries, at a cost of \$85,000.

Required:
Prepare journal entries to record the events.

ANS:
a. Cash

2, 000, 000
Bonds Payable........................... . .
2,000,000
To record bond sale.
b. Land

Revenues--Unrestricted Contributions..
30, 000

To record donation of land.
c. Construction in Progress................ 20,000

Cash.................................. . . 20,000
To record payment to architect.
(Note: If encumbrance accounting is used by the university, an entry is made for signing the contract.)
d. Expenses--Institutional Support......... 100,000

Cash.................................. 100,000
To record interest payment.
e. Construction in Progress................ 1,200,000

Cash...................................
1,200,000
To record payment to contractor.
f. Expenses--Operations and Maintenance
of Plant.................................. 35 35,000
Cash.....................................
35, 000
Reclassification Out--Temporarily
Restricted Satisfaction of Program
Restrictions..................................
Reclassification In-Unrestricted-Satisfaction of Program Restrictions... 35,000

To record payment for building repairs.
\begin{tabular}{|c|c|c|c|}
\hline \multicolumn{4}{|l|}{g. Construction in Progress} \\
\hline & Cash. & & 700,000 \\
\hline \multicolumn{4}{|c|}{To record payment to contractor.} \\
\hline & Buildings................................... 1 & 1,920,000 & \\
\hline & Construction in Progress.... To record completed wing. & & 1,920,000 \\
\hline \multirow[t]{4}{*}{} & . Bonds Payable. & 200,000 & \\
\hline & Expenses--Institutional Support & 100,000 & \\
\hline & Cash. & & 300, 000 \\
\hline & \multicolumn{3}{|l|}{increasing net investment in plant.} \\
\hline \multirow[t]{7}{*}{} & Library Books. & 85,000 & \\
\hline & Cash & & 85,000 \\
\hline & Reclassification Out--Temporarily Restricted, Satisfaction of Donor Restrictions... & , 85,000 & \\
\hline & \multicolumn{2}{|l|}{Reclassification In--Unrestricted} & \\
\hline & \multicolumn{2}{|l|}{Satisfaction of Donor Restrictions.} & 85,000 \\
\hline & \multicolumn{2}{|l|}{To record acquisition of special} & \\
\hline & \multicolumn{2}{|l|}{book collection and release of donor} & \\
\hline
\end{tabular}

DIF: D OBJ: 4
13. Consider the following events for Chase Private University:
a. Unrestricted contributions are pledged in the amount of \$500,000.
b. Purchase of material and supplies totaling \(\$ 100,000\) of which \(\$ 25,000\) is not yet paid.
c. Endowment income of \(\$ 8,000\) is restricted to student aid activities.
d. A federal grant for \(\$ 200,000\) was awarded for research.
e. Materials and supplies used were as follows: Student services \$10,000, Auxiliary enterprise \(\$ 25,000\)
f. Federal government monies of \(\$ 50,000\) restricted for student loans are received.
g. Expenses for the research project in d. totaled \(\$ 100,000\) to date.
h. Term endowments expire, making \(\$ 10,000\) cash available.
i. Cash of \(\$ 10,000\) from Life Income Fund Investments is received.
j. Stock with a market value of \(\$ 45,000\) is received from an art patron to finance art gallery improvements.
k. Federal grants for student awards through the Pell Grant
program are received in the amount of \(\$ 175,000\).
l. Bills went out for dormitory fees of which \(\$ 250,000\) is paid and \(\$ 50,000\) is still not received.
m. Payment of \(\$ 100,000\) is made on the mortgage.
n. Depreciation on all assets total \(\$ 125,000\). Of this depreciation charge, \(\$ 25,000\) represents depreciation on assets classified as donor restricted. Chase Private University elects to release donor restrictions when assets are placed in service.
o. Art gallery improvements of \(\$ 25,000\) were made with donorrestricted contributions.

Required:
Assuming that fund accounting is used, record the events. Identify the appropriate fund for each transaction.

ANS:
a. Current Unrestricted FundContributions Receivable .............. 500,000 Revenue--Unrestricted Contributions...... 500,000
b. Current Unrestricted Fund--Inventory of

Supplies.............................................. 100,000
Cash.............................................. 75,000
Accounts Payable............................. 25,000
c. Current Restricted Fund--Cash............... 8,000

Revenues--Temporarily Restricted, Endowment Income

8,000
d. Current Restricted Fund--Cash................ 200,000
U.S. Government Grant Refundable......... 200,000
e. Current Unrestricted Fund--

Expenses-Student Services................ 10,000
Expenses--Auxiliaries........................... 25,000
Inventory of Supplies
35, 000
f. Loan Fund--Cash.................................. 50,000
U.S. Government Grants Refundable........ 50,000
g. Current Restricted Fund--Expenses--Research 100,000

Cash.
100,000
S. Government Grants Refundable............ 10. 100,000
Revenue-Government Grants.................
h. Endowment Fund--Reclassification Out-

Temporarily Restricted--Expiration of Time
Restriction........................................ 10,000
Reclassification In--Unrestricted
Expiration of Time Restriction
10,000
```

i. Life Income Fund--Cash................... 10,000
Revenues--Temporarily Restricted--
Income on Investments

```
\(\qquad\)
```10,000
```

j. Plant-Investments ..... 45, 000

```Revenue-Temporarily RestrictedContributions175, 000Amount Held on Behalf of Others175, 000
```

l. Current Unrestricted Fund--Cash 250, 000

```Accounts Receivable50,000Revenues--Sales and Services of AuxiliaryEnterprises300, 000
```

m. Plant--Bonds Payable ..... 100, 000

```Cash
```

125, 000
n. Plant--Depreciation Expense ..... 125,000

```Allowance for Depreciation25, 000Cash25,000Reclassification Out--TemporarilyRestricted, Satisfaction of PlantAcquisition Restrictions................... 25,000Reclassification In---UnrestrainedSatisfaction of Plant AcquisitionRestrictions25,000
```

DIF: D OBJ: 4

```
14. The following events are for Tubac Center, a not-for-profit hospital. The hospital records expense data based on the nature of the expense, such as wages, salaries, and benefits.
a. Patient services amounting to \(\$ 300,000\) were billed. A 5\% allowance for uncollectibles is to be recorded.
b. Of \(\$ 70,000\) gross billings in part (a), third-party payers remitted \(\$ 62,000\) in full settlement. The remaining \(\$ 8,000\) is a contractual adjustment.
c. The board of trustees authorized \(\$ 90,000\) to increase the malpractice fund held by a trustee.
d. Supplies costing \(\$ 77,000\) were requisitioned from inventory maintained on a perpetual basis. These supplies were used by professional services.
e. Nurses' salaries of \(\$ 110,000\) were incurred. Of this amount, \(\$ 8,000\) of accrued benefits were unpaid. Ignore payroll deductions.
f. \$200,000 of the temporarily restricted net assets are reclassified to cover specified, current operations.
```

```
Required:
Prepare the necessary journal entries.
ANS:
a. Accounts Receivable.................... 300,000
    Patient Service Revenue............. 300,000
            To record billings.
    Provision for Uncollectibles........... 15,000
    Allowance for Uncollectibles
        To record 5% allowance.
b. Cash....................................................................
    Contractual Adjustments................. 8,000
        Accounts Receivable
            To record settlement from third-
                party payers.
c. Cash--Limited in Use under Malpractice
        Funding Arrangement................. 90,000
    Cash....................................
        To record increase in malpractice
        fund.
d. Professional Services Expense
            (Drugs and Supplies Used).......... 77,000
        Inventories..........................
        To record supplies requisitioned.
e. Nursing Services Expense
            (Wages, Salaries, and Benefits)..... 110,000
        Accrued Expenses........................
        Cash...................................
            To record salary and benefit
            payment and accrual.
f. Reclassification Out--Temporarily
        Unrestricted
            Satisfaction of Program
            Restrictions..................... 200,000
        Reclassification In--Unrestricted
            Satisfaction of Program
            Restrictions.................... 200,000
            To record amount received from
            Specific-Purpose Funds.
DIF: M
                        OBJ: 10
```

15. A not-for-profit hospital uses three revenue-controlling accounts: Patient Service Revenue, Other Operating Revenue, and Nonoperating Revenue.

Required:
Indicate which of the three revenue accounts would be credited to record the following transactions, or None if none of the accounts is appropriate.
a. Snack bar sales $\qquad$
$\qquad$
b. Dividends from unrestricted investments.. $\qquad$
c. Operating room fees $\qquad$
$\qquad$
d. Pharmacy sales to patients
e. Fees for educational program offered to nurses $\qquad$
$\qquad$
f. Proceeds from bond sale $\qquad$
$\qquad$
g. Gains on sale of unrestricted investments $\qquad$
$\qquad$
h. Contributions for a term endowment $\qquad$
i. Cash transfers from matured term endowments for use in operations $\qquad$
j. Cafeteria sales to visitors $\qquad$

ANS:
a. Other Operating Revenue, unrestricted
b. Nonoperating Revenue, unrestricted
c. Patient Services Revenue, unrestricted
d. Other Operating Revenue, unrestricted
e. Other Operating Revenue, unrestricted
f. None
g. Nonoperating Revenue, unrestricted
h. Nonoperating Revenues, temporarily restricted
i. Reclassification In, unrestricted expiration of time restrictions
j. Other Operating Revenue, unrestricted

DIF: M OBJ: 7, 8
16. Consider the following unrestricted donations to a not-for-profit health care facility:
a. Donation of property and equipment.
b. Donation of substantial amount of medical supplies.
c. Donation of resources to endow a fund.
d. Donation of cash to be used to conduct cancer research.
e. Volunteer provision of services by local high school students involving visiting and reading to patients.

Required:
Using the following format, indicate what entries would be recorded:
Event Journal Entry

ANS:
Event Journal Entry
a. Property and Equipment Nonoperating Revenue--Temporarily Restricted Contributions
b. Supplies Inventory (or Supplies Expense) Operating Revenue, Unrestricted Contributions
c. Cash (or other asset donated) Nonoperating Revenue--Permanently Restricted Contributions
d. Cash

Nonoperating Revenue--Temporarily Restricted Contributions
e. Not recorded because it is not a skilled service the organization would otherwise purchase

DIF: E OBJ: 10
17. Elder Care Services is a not-for-profit provider of health care services.
a. The condensed income statement for the year ended August 31, 20X5 shows the following:

b. Comparative balance sheets for August 31 show the following:

|  | 20X5 | 20X4 |
| :---: | :---: | :---: |
| Client accounts receivable | \$432,200 | \$341,600 |
| Supplies inventory | 153,500 | 172,800 |
| Accounts payable | 318,760 | 288,460 |
| Accrued expenses | 60,100 | 75,200 |

Required:
Prepare a schedule showing net cash provided by operating activities and nonoperating activities and nonoperating revenue that is presented under the indirect method of preparing a statement of cash flows.

ANS:
Elder Care Services
Reconciliation of Excess of Revenues over Expenses To Net Cash Provided by Operating Activities and Nonoperating Revenue
For the Year Ended August 31, 20X5

| Excess of revenues over expenses | \$450, 000 |
| :---: | :---: |
| Adjustments to reconcile excess of revenues |  |
| over expenses to net cash provided by |  |
| operating activities: |  |
| Depreciation | 478,200 |
| Amortization of deferred financing costs | 6,600 |
| Increase in liability for estimated |  |
| Loss on sale of equipment | 5,300 |
| Gain on sale of investments | $(39,800)$ |
| Increase in client accounts receivable | $(90,600)$ |
| Decrease in supplies inventory | 19,300 |
| Increase in accounts payable | 30,300 |
| Decrease in accrued expenses | $(15,100)$ |
| Net cash provided by operating activities | \$956,700 |

DIF: D OBJ: 10, 11
18. The post-closing trial balance for Blakely Hospital as of January 1, 20X5, is as follows:

|  | Debit | Credit |
| :---: | :---: | :---: |
| Cash | 79,800 |  |
| Accounts Receivable. | 37,000 |  |
| Allowance for Adjustments and |  |  |
| Uncollectibles. |  | 7,000 |
| Inventory of Supplies. | 14,000 |  |
| Long-Term Investments. | 146,200 |  |
| Property, Plant, and Equipment | 2,830, 000 |  |
| Accumulated Depreciation. |  | 564,000 |
| Endowment Investments. | 260,000 |  |
| Vouchers Payable. |  | 16,000 |
| Accrued Expenses. |  | 6,000 |
| Mortgage Bonds Payable. |  | 150,000 |
| Unrestricted Net Assets |  | 1,158,000 |
| Temporarily Restricted Net Assets |  | 1,250,000 |
| Permanently Restricted Net Assets. |  | 216,000 |
|  | 3,367,000 | 3,367,000 |

The following events occurred during 20X5:
a. Gross charges for hospital service, all charged to accounts receivable, were as follows: Room and board charges................................. \$780,000 Charges for other professional services........... 321,000
b. Deductions from gross revenues were as follows: Provision for uncollectible receivables............ \$30,000 Charity service.............................................. 15 . 000
c. The hospital paid $\$ 18,000$ to retire mortgage bonds payable with an equivalent book value.
d. During the year, Blakely Hospital received general contributions of $\$ 50,000$ and income of $\$ 6,500$ from endowment investments. Income received on endowment investments is unrestricted.
e. Patients were billed $\$ 3,000$ for television rental.
f. $\$ 26,000$ of donor specified contributions were used to acquire new equipment. The hospital policy is to release donor restrictions when asset is placed in service.
g. A sterilizer that originally cost $\$ 24,000$ and had a book value of $\$ 2,400$ was sold for $\$ 3,500$
h. Vouchers totaling \$1,191,000 were issued for the following items:
Administrative services expense......................... \$120,000
Fiscal services expense...................................... 95 ,000
General services expense....................................... 225,000
Nursing services expense................................... 5 520,000
Other professional services expense.................... 165 ,000
Supplies (use a perpetual inventory system).......... 60,000
Expenses accrued on December 31, 20X4.................. 6,000
i. Collections on accounts receivable totaled \$985,000. Accounts written off as uncollectible amounted to \$11,000. Collections from third-party payers included $\$ 70,000$ that is restricted to plant replacement.
j. Cash payments on vouchers payable during the year were \$825, 000 .
k. Supplies of $\$ 37,000$ were issued to nursing services.
l. During the year, \$12,000 of cash income on temporarily restricted investments was received. On December 31, 20X5, there was $\$ 800$ of accrued interest income on these investments. Earnings are restricted to plant and expansion.
m. Depreciation of buildings and equipment for the year was \$117, 000 .
n. On December 31, 20X5, an accrual of $\$ 6,100$ was made for interest on mortgage bonds payable. Interest is considered an Administrative Services Expense.
o. A grateful patient contributed $\$ 100,000$ in cash. Earnings must accumulate during the patient's lifetime. Upon death, the principal and accumulated earnings are to be used for plant expansion.

Required:
Using the following format, prepare journal entries for the events. Expense data are recorded based on types of services provided.

Event
Journal Entry

ANS:

Event
Journal Entry
a. Accounts Receivable.................. 1, 101,000

Patient Service Revenue--
Unrestricted.........................
1,101, 000
To record patient billings.
b. Provision for Uncollectible......... 30,000

Contractual Adjustments............. 15,000
Allowance for Adjustments and Uncollectibles................. 45,000
To record deductions from gross earnings for estimated uncollectibles (\$30,000) and charity service (\$15,000).
c. Mortgage Bonds Payable.............. 18,000

Cash................................ . .
To record mortgage payment.

| d. | Cash. | 56,500 |  |
| :---: | :---: | :---: | :---: |
|  | Nonoperating Revenue--Unrestricted |  |  |
|  | Contributions. |  | 50,000 |
|  | Nonoperating Unrestricted Endowment |  |  |
|  | Income |  | 6,500 |
|  | To record general contribution of |  |  |
|  | \$50,000 and unrestricted Endowment |  |  |
|  | income of \$6,500. |  |  |
| e. | Accounts Receivable | 3,000 |  |
|  | Other Operating Revenue--Unrestricted |  | 3,000 |
|  | To record television billings. |  |  |
| f. | Property, Plant, and Equipment. | 26,000 |  |
|  | Cash..... |  | 26,000 |
|  | To record purchase of equipment. |  |  |
|  | Reclassification Out--Temporarily |  |  |
|  | Restricted--Satisfaction of Plant |  |  |
|  | Acquisition. | 26,000 |  |
|  | Reclassification In--Unrestricted |  |  |
|  | Satisfaction of Plant Acquisition. |  | 26,000 |
|  | To record purchase of equipment. |  |  |
| g. | Cash. | 3,500 |  |
|  | Accumulated Depreciation | 21,600 |  |
|  | Property, Plant, and Equipment |  | 24,000 |
|  | Nonoperating Revenue--Unrestricted |  |  |
|  | Gain on Sale... |  | 1,100 |
|  | To record sale of sterilizer at a gain. |  |  |
| h. | Administrative Services Expense. | 120, 000 |  |
|  | Fiscal Services Expense. | 95,000 |  |
|  | General Services Expense. | 225,000 |  |
|  | Nursing Services Expense. | 520, 000 |  |
|  | Other Professional Services Expenses. | 165, 000 |  |
|  | Inventory of Supplies. | 60,000 |  |
|  | Other Expenses. | 6,000 |  |
|  | Vouchers Payable. |  | 1,191,000 |
|  | To record vouchers issued. |  |  |
| i. | Cash. | 985, 000 |  |
|  | Allowance for Adjustments and |  |  |
|  | Uncollectibles. | 11,000 |  |
|  | Accounts Receivable |  | 996, 000 |
|  | To record collection or write-off of accounts receivable. |  |  |
|  | Cash--limited to Plant Replacement and Expansion. | 70,000 |  |
|  | Cash...... |  | 70,000 |
|  | To record third-party payer |  |  |
|  | collections designated for plant |  |  |
|  | replacement. |  |  |
| j. | Vouchers Payable | 825,000 |  |
|  | Cash. . |  | 825, 000 |
|  | To record payment of vouchers. |  |  |

k. Nursing Services Expense........... 37,000

Inventory of Supplies.............
To record supplies issued.
l. Cash

12, 000
Accrued Interest Income............. 800
Nonoperating Revenue--Temporarily Restricted Investment Income.....
To record investment earnings received or accrued.
m. Provision for Depreciation (or Depreciation Expense)

117, 000 Accumulated Depreciation.......... To record annual depreciation.
n. Administrative Services Expense..... 6,100 Interest Payable..................
To record accrual of interest expense on bonds payable.
o. Cash................................. 100,000 Nonoperating Revenue--Temporarily Restricted Contribution........

100, 000

DIF: D
OBJ: 10, 11
19. The following is an adjusted preclosing trial balance of the General Funds of Barnes Nursing Home (non-profit).

Barnes Nursing Home
Adjusted Current Funds Trial Balance
December 31, 20X5

|  | Unrestricted |  | Restricted |  |
| :---: | :---: | :---: | :---: | :---: |
| Cash | 300,000 |  | 107,000 |  |
| Pledges Receivable | 12,000 |  | 206, 000 |  |
| Accrued Interest Receivable. | 1,000 |  |  |  |
| Inventory of Supplies. | 120,000 |  |  |  |
| Vouchers Payable |  | 50,000 |  | 10,000 |
| Accrued Expenses |  | 25,000 |  |  |
| Refundable Deposits. |  | 2,000 |  |  |
| Allowance for Uncollectible |  |  |  |  |
| Pledges. |  | 3,000 |  |  |
| Net Assets, January 1, 20X5 |  |  |  |  |
| Designated--Unrestricted.. |  | 12,000 |  |  |
| Undesignated--Unrestricted |  | 26,000 |  |  |
| Temporarily Restricted. |  |  |  | 3,000 |
| Permanently Restricted. |  |  |  | 250, 000 |
| Contributions. |  | 200, 000 |  | 50, 000 |
| Resident Service Revenue. |  | 415,000 |  |  |
| Other Operating Revenue. |  | 20,000 |  | 5,000 |
| Outreach Expenses... | 20,000 |  |  |  |
| Nursing Services Expenses.. | 100,000 |  |  |  |
| Dietary Service Expense. | 100,000 |  |  |  |
| General Service Expense. | 45,000 |  |  |  |
| Financial Service Expense... | 60,000 |  |  |  |
| Reclassification In-- |  |  |  |  |
| Satisfaction of Program |  |  |  |  |
| Restriction. |  | 5,000 |  |  |
| Reclassification Out-- |  |  |  |  |
| Satisfaction of Program |  |  |  |  |
| Restrictions. |  |  | 5,000 |  |
|  | 758,000 | 758,000 | 318,000 | 318,000 |

Required:
Prepare a statement of activities and a statement of financial position as of December 31, $20 \times 5$.

ANS:

> Barnes Nursing Home
> Statement of Activities
> For the Year Ended December 31, $20 \times 5$

|  | Unrestricted | Temporarily Restricted | Permanently Restricted | Total |
| :---: | :---: | :---: | :---: | :---: |
| Public support revenue: |  |  |  |  |
| Public support. |  |  |  |  |
| Contributions...... | 200,000 | 50,000 | -- | 250,000 |
| Revenue |  |  |  |  |
| Resident service. | 415,000 | -- | -- | 415, 000 |
| Other operating | 20,000 | 5,000 | -- | 25,000 |
| Net Assets released |  |  |  |  |
| from restrictions: |  |  |  |  |
| Satisfaction of |  |  |  |  |
| program restrictions | 5,000 | $(5,000)$ | -- | 0 |
| Total public support, revenue, and other.. | 640,000 | 50,000 | -- | 690, 000 |
| Expenses: |  |  |  |  |
| Outreach. | 20,000 | -- | -- | -- |
| Nursing services | 100,000 | -- | -- | -- |
| Dietary services | 100,000 | -- | -- | -- |
| General services | 45,000 | -- | -- | -- |
| Financial services | 60,000 | -- | -- | -- |
| Total expenses | 325,000 | -- | -- | 325,000 |
| Changes in net assets. | 315, 000 | 50,000 | -- | 365, 000 |
| Net assets, |  |  |  |  |
| January 1, 20X5. | 38,000 | 3,000 | 250,000 | 291,000 |
| Net assets, |  |  |  |  |
| December 31, 20X5. | 353,000 | 53,000 | 250,000 | 656,000 |

Barnes Nursing Home
Statement of Financial Position
Ended December 31, 20X5

| Cash | 407,000 |
| :---: | :---: |
| Pledges received (net of allowances) | 215,000 |
| Accrued Interest Receivable | 1,000 |
| Inventory of Supplies. | 120,000 |
| Total Assets | 743,000 |
| Vouchers payable. | 60,000 |
| Accrued expenses. | 25,000 |
| Refundable deposits | 2,000 |
| Total liabilities | 87,000 |
| Net Assets |  |
| Unrestricted. | 353, 000 |
| Temporarily restricted | 53,000 |
| Permanently restricted | 250,000 |
| Total Net Assets | 656,000 |
| Total liabilities and net assets | 743,000 |

DIF: D OBJ: 10, 11
20. The following data apply to Riverside Hospital, a not-for-profit organization.
a. Summarized cash receipts showed cash received from the following:

Patients and third-party payers.................. \$903,420
Other operational activities..................... 57,120
Donor restricted gifts for programs.............. 11,220 Unrestricted interest from investments........... 25,100
b. Summarized cash payments showed cash paid to the following:

Suppliers and employees......................... \$892,140
 For the purchase of equipment..................... 45, 450
c. Donation of $\$ 100,000$ cash received with donor restriction that it be permanently restricted. Income may be used for replacement of equipment.
d. Bonds payable that would have matured in two years were retired on an interest date at a face value of $\$ 18,000$.
e. The cash balance on January 1, 20X1, was \$168,020. On December 31, 20X1, the cash balance was \$145,300.

Required:
Using the direct method, prepare a statement of cash flows for the year ended December 31, 20X1.

ANS :

Riverside Hospital
Statement of Cash Flows of General Funds
For the Year Ended December 31, 20X1

| Cash flows from operating activities and nonoperating revenue: |  |
| :---: | :---: |
| Cash received from patients and third-party payers............ | \$ 903,420 |
| Cash received from other operational activities. | 57,120 |
| Cash received from restricted gifts | 11,220 |
| Cash received from unrestricted interest | 25,100 |
| Cash paid to suppliers and employees | $(892,140)$ |
| Cash paid to bank for interest charges | $(14,500)$ |
| Net cash provided by operating activities and nonoperating revenue | \$ 90,220 |
| Cash flows from investing activities: |  |
| Purchase of equipment | \$ (45,450) |
| Net cash used by infantry activities | \$ (45,450) |
| Cash flows from financing activities: |  |
| Repayment of long-term bonds payable | \$ (18, 000 ) |
| Contributions received restricted for long- |  |
| term investment | 100, 000 |
| Net cash provided by investing activities | \$ 82,000 |
| Net decrease in cash | \$ 126,770 |
| Cash balance at beginning of year | 168, 020 |
| Cash balance at end of year. | \$ 294,790 |

DIF: M OBJ: 10

## ESSAY

1. Are not-for-profit universities required to use fund accounting?

ANS:
Many colleges and universities continue to use the underlying fund structure for their accounting system. However, they are no longer required under FASB Statement No. 117 to disclose or display this underlying fund structure in their financial reports. Therefore, day-to-day economic events may be recorded in funds but the final year-end financial report will not display any fund structure or detail.

DIF: E OBJ: 1
2. How has the adoption of GASB Statement No. 35 changed the reporting standards for colleges and universities.

ANS:
The Governmental Accounting Standards Board (GASB) has jurisdiction over all government-owned entities such as public colleges and universities. The Financial Accounting Standards Board (FASB) has jurisdiction over private college and university financial reporting standards. The issuance of GASB Statement No. 35 requires public colleges and universities to us the guidance of special purpose governments engaged in business type activities, typically in Enterprise Funds. The financial statements of public colleges and universities are designed to emphasize the organization as a whole.

DIF: E OBJ: 2
3. In accounting for not-for-profit public universities, Endowment and Similar Funds are commonly used.

Required:
a. List and briefly define the three types of endowments often found in the university environment.
b. Describe the accounting procedures for income earned on endowment funds.
c. Explain the use of investment pools.

ANS:
a. Regular or pure endowments are funds whose principal has been specified by the donor as nonexpendable. Term endowments are funds whose principal is expendable after a specified time period or after a designated event. Quasi-endowments are funds set aside by the board or controlling body, usually from Unrestricted Current Funds.
b. Income on restricted endowment funds should be transferred and recorded in directly in the restricted current fund stipulated by the donor. If no stipulation exists, the income can be transferred and recorded in the unrestricted general fund, where it is credited to Endowment Income.
c. The resources for endowment funds often are pooled for investment purpose to achieve better yields and tighter management. The various fund balances then share proportionately in the outcome of the fund performance based on the fair value of the investments. The costs of managing the funds should be borne by the university's unrestricted current fund. All investments should be reported at their fair market value on the Statement of Net Assets.

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DIF: E OBJ: 3
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4. Explain how certain transactions that traditionally were reported as restricted by private universities will now be categorized as unrestricted exchange transaction. Describe how they will be accounted for per FASB 116.

## ANS:

Exchange transactions, i.e., reciprocal transfer in which each party receives and sacrifices approximately equal value, are not considered restricted. Many transactions which have been accounted for in much the same way as contributions, e.g., grants, awards, sponsorships and appropriations will be categorized as exchange transactions rather than contributions and accounted for as increases in unrestricted net assets. Government grants which require performance by the not-forprofit organization will be accounted for as refundable deposits (liabilities) until earned. Unrestricted revenue will be earned when expenses are made in conjunction with the provisions of the grant. Other government grants which are essentially pass-through financial aid to students will now be accounted for as agency transactions.

DIF: M OBJ: 3
5. In accounting for health care services, several methods are utilized.

Required:
a. List and briefly define the three types of classifications of health care facilities
b. Describe the effects of third party payer arrangements on revenue recognition procedures for health care organizations.
c. Describe the classification of expenses in a health care environment.

ANS:
a. Investor Owned - privately owned and operated for a profit Governmental Health Care Entities - operated by a governmental unit and accounted for as an enterprise fund Voluntary Not for Profit Health Care Entities - entities organized and sustained by member of a group or community, such as a religious affiliation
b. Almost all fees charged by health care entities are subject to a third party payment contract, such as Medicare, Medicaid, HMO, or private insurance companies. The reimbursement from the third party payers is determined not by what is charged by the health care entity. The reimbursement is calculated based on the costs of providing services and that cost is defined by the third party payer. It is subject to negotiation by the provider of the service at contract renewal time. Hospital payment systems and some larger clinical settings may utilize capitation contracts where the providers are reimbursed on per patient procedures, not on the actual cost or list price of the service provided. Managers of these organizations must ensure their actual costs do not exceed capitated levels for services provided if they are to achieve profitability.
c. Expenses are classified in the financial statements by functional expense categories. The functions are dependent on what type of health care entity is preparing the report. For example, Nursing Services expense represents all the various expenses incurred in the care of patients or residents. The functional expense line does not provide details of the natural classifications like salaries for nurses, supplies, etc. This information is provided in the footnotes.

DIF: E
OBJ: 7

## Chapter 20 - Estates and Trusts: Their Nature and the Accountant's Role

## MULTIPLE CHOICE

1. Which of the following is NOT an advantage of forming an inter vivos trust?
a. it is a popular way to transfer property to one's heirs without a will, thereby avoiding probate
b. it is formed during the decedent's lifetime
c. any trust is not recognized as a taxable entity
d. the decedent is the trustee until death, then a successor trustee is appointed

ANS: C DIF: E OBJ: 7
2. When determining a decedent's gross estate for federal tax purposes, which of the following items would not be included?
a. fair market value of real property
b. fair market value of intangible property
c. fair market value of property left to a surviving spouse
d. all of the above items would be included in the gross estate

ANS: D
DIF: E
OBJ: 4
3. The gross estate of a decedent:
a. is the same as the probate estate
b. includes all assets owned by a decedent at the moment of death, regardless of whether they pass to others by means of will, joint tenancy, or community property laws
c. includes assets measured only at historical cost
d. does not include transfers made through gifts

ANS: B DIF: E OBJ: 4
4. Which of the following statements is true concerning the maximum gift that could be given within a year, prior to 1999, without incurring any gift tax or using any of the unified credit?
a. A single individual is limited to gifts of $\$ 10,000$ in cash or property with a fair market value of $\$ 3,000$ to an unrelated individual.
b. Consenting spouses can give each other a maximum of $\$ 10,000$.
c. Consenting spouses together can give an unrelated individual \$20, 000 .
d. A single individual is limited to a gift of \$10,000 to a qualified charity.

ANS: C
DIF: M
OBJ: 3
5. Which of the following would NOT be included in the corpus or principal
of an estate?
a. accrued interest and declared dividends on investments held by decedent
b. personal valuables
c. life insurance proceeds where designated beneficiary is the estate
d. all of the above are included

ANS: D DIF: E OBJ: 4
6. The starting point for the computation of federal estate tax is the gross estate. Which of the following statements is not true regarding the computation of the gross estate?
a. The gross estate for tax purposes is often greater than the estate for probate purposes
b. The taxable estate does not include transfers of property made during decedent's lifetime
c. The gross estate for tax purposes also includes certain transfers by the deceased during life in which certain rights are retained by the decedent
d. The taxable estate can be reduced by certain allowable deductions

ANS: B DIF: M OBJ: 4
7. The unified tax credit equals:
a. the exclusion amount in any given year
b. a flat rate applied against the taxable estate
c. the tentative tax that would be calculated on the exclusion amount
d. gift tax calculated on pre 1981 gifts
ANS: C
DIF: E
OBJ: 4
8. The effect of the marital deduction is:
a. total elimination of estate taxes for both the decedent and their spouse
b. to reduce the taxable estate of the decedent's spouse
c. deferral of estate taxes until the death of the decedent's spouse
d. increase the available unified tax credit

ANS: C DIF: M OBJ: 3
9. Which of the following statements is true concerning the election of the alternate valuation date?
a. Only the properties that have decreased in value are valued on the alternate date.
b. All of the estate property is revalued on the alternative date, whether sold, distributed or remaining in the estate.
c. Property distributed is revalued while property sold is not.
d. The alternate date can only be used if the revaluation results in a lower total gross estate and lower estate taxes.

ANS: D
DIF: M
OBJ: 3
10. The alternate valuation date is how many months after the decedent's death?
a. 3
b. 6
c. 9
d. 12

ANS: B
DIF: M
OBJ: 3
11. Jane Ramos owned stock with a cost of $\$ 200,000$. The stock has a market value on Jane's date of death of $\$ 375,000$. The stock was willed to Jane's niece Jenny. Which of the following is true?
a. Jenny's basis is $\$ 200,000$; the stock's value in the gross estate is \$100,000.
b. Jenny's basis is $\$ 375,000$; the stock's value in the gross estate is \$100,000.
c. Jenny's basis is $\$ 200,000$; the stock's value in the gross estate is \$375,000.
d. Jenny's basis is $\$ 375,000$; the stock's value in the gross estate is \$375,000.

ANS: D
DIF: M
OBJ: 3
12. Which of the following statements is true concerning federal income tax laws and estates?
a. Estates are subject to estate taxes and, therefore, exempt from income tax.
b. The income tax on the earnings from an estate is levied only on the beneficiary.
c. The income tax on the earnings from an estate is levied only on the estate.
d. The income tax on the earnings from an estate is levied either on the estate or the beneficiary.

ANS: D
DIF: E
OBJ: 4
13. According to the Uniform Probate Code, in an intestate distribution, personal property is distributed
a. under the laws of the state where the property is located.
b. under the laws of the state in which the decedent was domiciled.
c. directly to the devisee.
d. directly to the legatee.

ANS: B
DIF: E
OBJ: 2
14. An administrator differs from an executor of a will in that an administrator
a. has fiduciary responsibility for real property.
b. has fiduciary responsibility for personal property.
c. has fiduciary responsibility in a testate distribution.
d. is appointed by the court.

ANS: D DIF: E OBJ: 2
15. In a testate distribution, a gift of property left after all other legacies have been assigned is referred to as a
a. general legacy.
b. demonstrative legacy.
c. residuary legacy.
d. specific legacy.

ANS: C
DIF: E
OBJ: 5
16. Which of the following is not a legacy?
a. a tract of land bequeathed to the local humane society
b. a diamond and pearl necklace to a family member
c. \$20,000 left to a nephew
d. a Ford Explorer left to a niece

ANS: A DIF: E OBJ: 5
17. The primary purpose of accounting for estates is to facilitate reporting to the court during the fiduciary's term. Therefore, which of the following concepts is least important?
a. GAAP for revenue recognition
b. Inflows and outflows of assets
c. Distinction between principal and income
d. All are important in accounting for estates.
ANS: A
DIF: E
OBJ: 6
18. Which of the following items is not included in the estate principal subsequent to the date of death?
a. Assets discovered after the date of death
b. Gains on the sale of principal assets
c. Losses on the sale of principal
d. All affect the estate principal.

ANS: D DIF: M OBJ: 2
19. Which of the following items is not charged against the income of an estate?
a. Ordinary repairs to income-producing property
b. Expenses incurred to protect income flow
c. Loss on the sale of an estate asset
d. All of the above are charged against the income

ANS: C DIF: E OBJ: 6
20. Which of the following items are chargeable against the income of an estate?
a. Costs incurred in probating the will
b. A loss on the sale of estate assets
c. Legal fees incurred to protect income flow
d. All of the above

ANS: C
DIF: E
OBJ: 6
21. The party receiving the principal of an estate may be referred to as the
a. income beneficiary.
b. remainderman.
c. devisee.
d. b and c.

ANS: D
DIF: E
OBJ: 5
22. Which of the following statements is true concerning the handling of discounts and premiums for bonds that are part of an estate at the time of death?
a. Straight-line amortization is normally used to amortize discounts and premiums.
b. Effective amortization is the preferred method.
c. Either straight-line or effective amortization can be used.
d. Discounts and premiums are not amortized.

ANS: D DIF: M OBJ: 5
23. Which of the following best describes the accounting for discounts and premiums for bonds purchased by a fiduciary for an estate?
a. Premiums are amortized, but discounts are not.
b. Discounts are amortized, but premiums are not.
c. GAAP guidelines for amortization are followed, i.e., both are amortized.
d. Like bonds purchased prior to the death, neither discounts nor premiums are amortized.

ANS: A
DIF: M
OBJ: 5
24. Which of the following statements concerning accounting for depreciation and depletion in an estate is not true?
a. For any depreciation taken, an equal amount of income is transferred to principal.
b. Depreciation is a common charge against income.
c. Depletion is generally taken for wasting assets.
d. All of the above.

ANS: B
DIF: M
OBJ: 5
25. The primary purpose of an estate's charge and discharge statement is to detail
a. cash flow as to principal and as to income.
b. income and expenses of the estate.
c. transactions affecting principal and income.
d. the profit or loss during the period of stewardship.
ANS: C
DIF: E
OBJ: 6
26. Which of the following statements is not true?
a. Medical payments made on someone else's behalf are considered taxable gifts.
b. An inter vivos trust allows a person to pass property to heirs without having a will.
c. The corpus of an estate is made up of assets.
d. Estate tax rates are progressive.

ANS: A DIF: M OBJ: 3,4
27. A charitable remainder trust
a. splits assets between a surviving spouse and a trust
b. distributes income on a trust to a charitable organization for a period of time, after which, the principal assets are transferred to a beneficiary
c. is the same as a Q-TIP trust
d. distributes income from trust assets to individual beneficiaries for a period of time, after which, the principal assets are transferred to a remainderman, which must be a charitable organization

ANS: D DIF: E OBJ: 7
28. The double trial balance for estate and trust accounting indicates the need to segregate
a. real property from personal property.
b. devices from legacies.
c. principal items from income items.
d. assets of the estate from claims against the estate.

ANS: C
DIF: M
OBJ: 7
29. In the initial journal entry recording the inventory of the estate, liabilities incurred by the decedent are
a. not recorded.
b. credited to specific liability accounts.
c. credited to the account Claims Against Estate Principal.
d. credited to the account Claims Against Estate Income.

ANS: A DIF: M OBJ: 6
30. A trust created through a will is called a(n)
a. inter vivos trust.
b. living trust.
c. testamentary trust.
d. devisee trust.

ANS: C DIF: E OBJ: 7
31. The party to which legal title and management responsibilities are initially given in a trust agreement is referred to as the
a. trustee.
b. remainderman.
c. grantor.
d. beneficiary.

ANS: A
DIF: E
OBJ: 7
32. Beginning in 1999
a. only gifts to U.S. citizens may be considered as nontaxable.
b. estates are taxed at a higher rate than income.
c. the annual allowable maximum exclusion for taxable gifts is adjusted for inflation.
d. the marital deduction is lowered for federal tax purposes.

ANS: C DIF: E OBJ: 3

## PROBLEM

1. Adequate estate planning is critical for an individual or family with a sizable net worth. List the goals of estate planning for large, more complex estates.

ANS:
a. Discover and clearly communicate the desires and wishes of the decedent.
b. Insure that the estate is properly administered or managed in order to satisfy the desires and wishes of the decedent.
c. Maximize the economic value of the estate's net assets.
d. Minimize the taxes that may be assessed against the assets and income of the estate.
e. Define the necessary liquidity of the estate's assets so that desired conveyances and distributions may be achieved.
f. Provide proper and timely accounting of the activities of the estate and its fiduciary.

DIF: M OBJ: 1
2. Estate planning can be a complex process because of the many factors and objectives that must be considered. Not the least of these factors are the tax consequences of estate planning activities. From an estate tax perspective, list the major considerations relevant to proper planning.

ANS:
a. Maximizing benefits of the marital deduction.
b. Making gifts during one's lifetime.
c. Taking actions to accomplish a step-up in property basis.
d. Taking actions to benefit from a loss in property values.
e. Maximizing charitable deductions.
f. Planning estate liquidity.

DIF: M OBJ: 1
3. Define what makes up the corpus or principal of an estate and list several examples. Also, list the potential claims or deductions from the principal.

ANS:
The assets of an estate are referred to as the corpus or principal of the estate. These assets vary in nature and are included at their fair market value. Assets that are the legal property of the decedent on the date of death must be inventoried. These could include:
Investments such as stocks and bonds
Accrued Interest or declared dividends on those investments Capital interests in businesses Life Insurance proceeds that are receivable by the estate
Investment in real estate, including accrued rents
Intangible assets such as patents or copyrights Loans or notes receivable, including accrued interest Unpaid wages and any other earned income Personal valuables

Not all assets can be identified by the fiduciary at the time of the initial inventory. Assets identified at a later date are still included in the principal of the estate.

The principal is not reduced by the liabilities of the decedent.
Liabilities are satisfied through the distribution of estate principal. However, there are some allowable claims against the estate including the following:
Claims having a special lien, not to exceed the value of the property Funeral and Administrative expenses
Taxes: income, inheritance, and estate
Debts due to the US Government and various states
Judgements of any court of competent jurisdiction
Wages due domestic servants
Medical Claims

DIF: M OBJ: 2
4. For estate planning purposes, Albert began distributing gifts in 2005. Already, in 2005, Albert has given his daughter stocks costing \$5,000, with a current market value of $\$ 10,000$.

Required:
What is the maximum additional gift Albert can give in 2005 to his daughter in cash without incurring any gift tax liability assuming that:
a. Albert is single.
b. Albert is married and his wife is willing to give the maximum amount the couple is allowed.

ANS:
a. $\$ 1,000,000+11,000-10,000=\$ 1,001,000$
b. $\$ 2,000,000+22,000-10,000=\$ 2,012,000$

DIF: M OBJ: 3, 4
5. Mr. Riekoff died and left the following stocks to his two sons:


Required:
a. If both sons sold their stocks ten months after their father's death for $\$ 50,000$ and the alternate valuation was not used, what would their respective capital gains/losses be?
b. Assuming that the price of the stock remained constant in the year prior to Mr. Riekoff's death, what might have been a better method of handling the stocks from a tax planning perspective? Explain why.

ANS:
a. Tom's gain $=$ \$50, $000-20,000=\$ 30,000$

Ted's loss $=\$ 50,000-98,000=\$ 48,000$ capital loss
b. Mr. Riekoff could have considered selling Tom's stocks in the year before his death and taken advantage of a $\$ 30,000$ capital loss. As it was handled, Tom had a taxable gain of $\$ 30,000$ and no one was able to use the $\$ 30,000$ capital loss. However, for Ted, he is able to recognize a large capital loss due to the step up in value of the Beta stock transferred to him. The $\$ 38,000$ increase in value from cost to value at date of death deferred any recognition of capital gain.

DIF: M OBJ: 3, 4
6. Angela Burke died in 20X3 leaving a gross estate that consists of the following assets: (values given are market values on date of death or valuation)

| House | \$550, 000 |
| :---: | :---: |
| Investment in Hogan Stock | 200,000 |
| Dividends declared, not paid on Hogan Sto | 10, 000 |
| Automobile | 20,000 |
| Jewelry | 50,000 |
| Other Personal Property | 20,000 |
| Her unpaid bills included the following: |  |
| Funeral expenses | \$ 10,000 |
| Administrative expenses | 6,500 |
| Final income tax | 33,500 |
| Mortgage.. | 120,000 |

Since 1976, Angela has made taxable gifts of $\$ 200,000$ to her children, to whom she also leaves her estate.

Required:
Determine, in good form, the tax base for the estate.

ANS:

| Gross estate | \$ 850,000 |
| :---: | :---: |
| Deductions allowed | (170, 000) |
| Taxable estate. | \$ 680,000 |
| Plus post-1976 taxable gifts | 200, 000 |
|  | \$ 880,000 |

DIF: M
OBJ: 4
7. If the funds in an estate are insufficient to satisfy all valid claims against it, state laws provide a priority for settlement.

Required:
a. Reorder the list of claims below in the most common order of priority:
(1) Wages due domestic servants for a period of not more than one year prior to date of death and medical claims for the same period.
(2) Taxes: income, estate, and inheritance.
(3) Claims having a special lien against property, but not to exceed the value of the property.
(4) Debts due the United States and various states.
(5) All other claims.
(6) Funeral and administrative expenses.
(7) Judgments of any court of competent jurisdiction.
b. If funds are insufficient to satisfy all of the claims within a class, explain how claims are paid.

ANS:
a. (1) Claims having a special lien against property, but not to exceed the value of the property.
(2) Funeral and administrative expenses.
(3) Taxes: income, estate, and inheritance.
(4) Debts due the United States and various states.
(5) Judgments of any court of competent jurisdiction.
(6) Wages due domestic servants for a period of not more than one year prior to date of death and medical claims for the same period.
(7) All other claims.
b. Within a class, each claim is satisfied on a pro rata basis if funds are inadequate to accomplish total payment for that class.

DIF: M
OBJ: 5
8. Assuming that no stipulation is made in the will, indicate by placing a check mark in the appropriate column whether the typical accounting treatment of each of the following items would affect principal only, income only, or both principal and income accounts of an estate.
(1) Gain on sale of an estate asset

| Would Affect Only |
| :--- |
| Principal Would |
| Income |

(2) Loss on sale of an estate asset
(3) Redemption of a bond four months after death on which there was accrued interest on date of death
(4) Distribution to an income beneficiary
(5) Income taxes due on decedent's taxable income to date of death
(6) Location of an asset after filing the inventory of estate assets
(7) Fee paid for professional management of both principal and income property
(8) Costs incurred in probating the will
(9) Rental income earned after date of death
(10) Dividends declared after date of death

ANS:

| Item |  | Would Affe | t Only | Would |
| :---: | :---: | :---: | :---: | :---: |
|  |  | $\frac{\text { Principal }}{}$ | Income | Affect Both |
| (2) | Loss on sale of an estate asset | X |  |  |
| (3) | Redemption of a bond four months after death on which there was accrued interest on date of death |  |  | X |
| (4) | Distribution to an income beneficiary |  | X |  |
| (5) | Income taxes due on decedent's taxable income to date of death | X |  |  |
| (6) | Location of an asset after filing the inventory of estate assets | X |  |  |
| (7) | Fee paid for professional management of both principal and income property |  |  | X |
| (8) | Costs incurred in probating the will | X |  |  |
| (9) | Rental income earned after date of death |  | x |  |
| (10) | Dividends declared after date of death |  | x |  |

DIF: M OBJ: 6
9. On February 1, 20x2, Sharon Kane died. Sharon left a valid will. Events in 20X2 related to the estate are as follows:
(1) The inventory of the estate on February 1, 20X2 included the following:

```
Cash in the bank
\$100, 000
```

Bayside Co. common stock:
10,000 shares purchased at a cost of $\$ 5$ per share Bayside is a publicly traded company and has a market value on $2 / 1 / 02$ of $\$ 23.50$ per share Coe Corp. bonds, face value $\$ 480,000$, market value, excluding accrued interest, \$510,000. (Interest accrues at a rate of $\$ 4,000 /$ month. As of $2 / 1 / X 2, \$ 4,000$ has accrued.) Dividends on Bayside stock declared January 15, payable March 15.................................. 9,000
(2) The Bayside dividend is received on March 15.
(3) On April 1, 20X2 you discover that Sharon owns a tract of land on a lake that originally cost $\$ 25,000$ and now has a market value of $\$ 110,000$.
(4) From February 1 through June 30, the following items were paid for: Funeral expenses......................................... \$10,000 Legal fees (\$500 related to income)................ 5, 500 Final income tax...................................... 25,000 Miscellaneous debts incurred prior to death....... 12,000 ======
(5) The Bayside stock is sold for $\$ 250,000$.
(6) On June 1, the Coe Corp. bonds are sold for 107 plus accrued interest.
(7) The following assets are distributed on June 30, 20×2:

```
Cash - principal.................................. $200,000
Cash to income beneficiaries.......................
Land to beneficiary
    10,000

\section*{Required:}
a. As the executor of the estate, record the \(20 X 2\) events in general journal form.
b. Prepare a Charge and Discharge Statement for the period February 1, 20X2 to June 30, 20X2.

ANS:
a.
\begin{tabular}{|c|c|c|c|}
\hline (1) & Cash--Principal. & 100, 000 & \\
\hline & Bayside Stock. & 235,000 & \\
\hline & Dividends Receivable. & 9, 000 & \\
\hline & Accrued Interest--Coe & 4,000 & \\
\hline & Coe Corp. Bonds. & 510,000 & \\
\hline & Estate Principal & & 858,000 \\
\hline (2) & Cash--Principal. & 9,000 & \\
\hline & Dividends Receivable & & 9,000 \\
\hline (3) & Land. & 110,000 & \\
\hline & Assets Subsequently Discovered. & & 110,000 \\
\hline (4) & Funeral and Administrative Expenses. & 15,000 & \\
\hline & Debts of Decedent Paid. & 37,000 & \\
\hline & Cash--Principal. & & 52,000 \\
\hline & Expenses Chargeable Against Income & 500 & \\
\hline & Cash--Income. & & 500 \\
\hline (5) & Cash--Principal. & 250,000 & \\
\hline & Gain on Realization of Principal Assets. & & 15,000 \\
\hline & Bayside Stocks. & & 235,000 \\
\hline (6) & Cash--Income. & 16,000 & \\
\hline & Estate Income(interest on bonds) & & 16,000 \\
\hline & Cash--Principal. & 517,600* & \\
\hline & Accrued Interest--Coe & & 4,000 \\
\hline & Coe Corp. Bonds. & & 510,000 \\
\hline & Gain on Realization of Principal & & \\
\hline & \[
\begin{aligned}
& \text { Assets.................................. } \\
& *(\$ 480,000 \times 1.07=\$ 513,600)+\$ 4,000=
\end{aligned}
\] & \$517,600 & 3,600 \\
\hline (7) & Legacies Distributed. & 310,000 & \\
\hline & Cash--Principal. & & 200, 000 \\
\hline & Land. & & 110, 000 \\
\hline & Distribution to Income Beneficiaries.... & 10,000 & \\
\hline & Cash--Income. & & 10,000 \\
\hline
\end{tabular}
b.

Estate of Sharon Kane Charge and Discharge Statement For the Period February 1 through June 30, 20X2

As to Principal
I charge myself with:
Assets per original inventory.......... \$858,000
Assets subsequently discovered......... 110,000
Gain on realization of principal assets 18,600
Total charges.
\$986, 600
I credit myself with:
Funeral and administrative expenses..... 15,000
Debts of decedent paid................ 37,000
Legacies distributed................... 310,000
Total credits
362, 000
Balances as to estate principal consisting of:

Cash--principal..................... \$624,600

As to Income
I charge myself with:
Estate income.................................
\$ 16,000
I credit myself with:
Expenses chargeable against income..... \$ 500
Distribution to income beneficiarie
Total credits
10,000
\(======\)

Balance as to estate income
consisting of:
Cash-income.......................... \$ 5,500
========

DIF: D OBJ: 6
10. Betty Bloome died on February 28, 20X5. The following trial balance was prepared by the executor of Betty's estate as of October 31, 20X5:
\begin{tabular}{|c|c|c|c|c|}
\hline & \multicolumn{2}{|l|}{As to Principal} & \multicolumn{2}{|l|}{As to Income} \\
\hline Cash--Principal & \$ 75,000 & & & \\
\hline Cash--Income & & & \$30, 000 & \\
\hline Corporation Stock & 150,000 & & & \\
\hline Assets Subsequently Discovered. & & \$ 17,000 & & \\
\hline Loss on Realization of & & & & \\
\hline Principal Assets............ & 3,000 & & & \\
\hline Funeral and Administrative & & & & \\
\hline Expense. & 9,000 & & & \\
\hline Debts of Decedent Paid & 14,000 & & & \\
\hline Legacies Distributed. & 20,000 & & & \\
\hline Devises Distributed & 10,000 & & & \\
\hline Estate Principal. & & 264, 000 & & \\
\hline Expenses Chargeable Against & & & & \\
\hline Income. & & & & \$ 2,000 \\
\hline Distributions to Income & & & & \\
\hline Beneficiaries & & & & 7,000 \\
\hline Estate Income. & & & & 21,000 \\
\hline & \$281,000 & \$281,000 & \$30,000 & \$30,000 \\
\hline
\end{tabular}

Required:
Prepare a charge and discharge statement as of December 31, 20X5.
ANS:
Estate of Betty Bloome Charge and Discharge Statement
For the Period October 31, 20X5 through December 31, 20X5

\section*{As to Principal}

I charge myself with:
Assets per original inventory........... \$264,000
Assets subsequently discovered. 17,000
Total charges
\$281, 000
I credit myself with:
Loss on realization of principal assets.. \$ 3,000
Funeral and administrative expenses..... 9,000
Debts of decedent paid 14, 000
Legacies distributed 20, 000
Devises distributed 10, 000

Total credits
56, 000
Balance as to estate principal, consisting of:
Cash--principal.......................... . .
Corporation Stock
\$ 75, 000
150,000 \$225,000
As to Income
charge myself with:
Estate income\$ 30,000
I credit myself with:
Expenses chargeable against income....... \$ 2,0007,000
Total credits9,000
Balance as to estate income, consisting of:Cash--income
DIF: M
OBJ: 6
11. Complete the following statements by filling in the blanks:
a. Real property disposed of under a valid will is called a(n)
\(\qquad\) -.
b. A person who dies without a valid will is said to die
\(\qquad\) .
c. The personal representative of the decedent under a valid will is called the \(\qquad\) _.
d. For an unmarried person, the amount of property exempted from the federal estate tax is referred to as the \(\qquad\) .
e. Since estate rates increase as the tax base increases, the rates are said to be \(\qquad\) .
f. With spousal consent, nontaxable gifts per individual per year amount to \(\qquad\) .
g. Under appropriate conditions, the fiduciary of an estate may value assets at a date six months after death. The date is called the \(\qquad\) .
h. A valid will says, "My nephew shall receive the gold Canadian maple leaf coins in my Greenwood Trust safety deposit box." This is an example of \(a(n)\) \(\qquad\) legacy.
i. Income from an asset may be assigned to one party called the . After a stipulated period of time, the asset itself may be distributed to another party called the
\(\qquad\) _.

ANS:
a. devise
f. \$20,000
b. intestate
g. alternate valuation date
c. executor or executrix
h. specific
d. unified credit
i. income beneficiary;
e. progressive
remainderman

DIF: E OBJ: 1, 2, 3
12. In his will, Andrew Baker provided for the establishment of a trust that will include the bulk of his estate assets. At the time of his death, his net assets had a market value of \(\$ 430,000\) consisting of \(\$ 75,000\) in cash, \(\$ 125,000\) of U.S. Treasury bonds including accrued interest, and the remainder in various securities. Income beneficiaries of the trust will be the same as the income beneficiaries of the estate. Fiduciary Bank will act as trustee.

Required:
a. Identify the term that describes this kind of trust.
b. Prepare journal entries on the bank's books for the following transactions:
(1) The assets are accepted by the bank as trustee.
(2) Bond interest of \(\$ 35,000\) is received, of which \(\$ 10,000\) was accrued to the date of transfer to the trustee Dividends of \(\$ 20,000\) are also received.
(3) The following cash distributions were made by the trustee:

To income beneficiaries................. \$25,000
To trustee to cover administrative fees (of which \(2 / 3\) is chargeable against principal and 1/3 against income)...... 12,000 Total distributions........................ \$37,000
======

ANS:
a. Testamentary trust
b.(1) Cash--Principal.......................... 75,000
U.S. Treasury Bonds..................... 125,000

Investment Securities.................... 230,000
Trust Principal...........................
430,000
(2) Cash--Principal.......................... 10,000

Cash--Income................................ 45 . 4000
Trust Income............................ 45 45000
U.S. Treasury Bonds.................. 10,000
(3) Distributions to Income Beneficiaries 25,000 Expenses Chargeable Against Trust
Income...................................... 4, 000 Cash--Income........................... 29,000

Expenses Chargeable Against Trust
Principal............................. 8,000
Cash--Principal........................ 8,000

DIF: M
OBJ: 7
13. Mr. Arnold Schwartz died on January 23, 20X5. He owned the following items on the date of his death:


His funeral and administrative expenses were \(\$ 10,000\). He also had a life insurance policy with no cash value for \(\$ 150,000\) payable to his son.

Arnold's will specified the following:
(1) Mercy Hospice was to receive \(\$ 15,000\) in cash.
(2) His son was to receive the rental property and one-fourth of the stocks.
(3) His wife was to receive the remainder of the assets.

Required:
Assuming Arnold made \(\$ 100,000\) in taxable gifts since 1976, compute his tax base for estate tax purposes.

ANS:

* \$1,350,000 - \((\$ 75,000+\$ 25,000+\$ 10,000+\) \(\$ 15,000+\$ 700,000+(\$ 400,000 / 4))=\$ 425,000\)

DIF: M
OBJ: 4
14. Al Sooner died on January 15, 20X5. Records disclose the following estate:


Required:
Prepare journal entries to record the events for the period January 15 through January 31, 20X5.

ANS:
Journal Entries
20X5
Jan. 15 Cash--Principal....................... 7, 500
5\% Note Receivable................... 3,000
Accrued Interest on 5\% Note....... 50
Stocks................................ 70,000
Dividends Receivable on Stocks.... 250
8\% Mortgage Receivable............. 30,000
Accrued Interest on 8\% Mortgage... 150
Real Estate--Apartment House..... 400,000
Household Effects................... 27,250
Dividends Receivable from Sooner
Trust............................. 250,000
Estate Principal
788,200
To record initial inventory of estate assets.
```

Cash receipts:
Jan. 20 Cash--Principal.................... }25
Cash--Income..................... 1,250
Dividends Receivable on Stocks..
Estate Income.................
To record dividends received.
Cash--Principal...............................
Cash--Income......................
5% Note Receivable............. 3,000
Accrued Interest on 5% Note..... }5
Estate Income...................
To record collection of note
and interest.
Cash--Principal.................. 20,000
Loss on Realization of Principal
Assets....................... 2,500
Stocks.........................
To record sale of stocks at a
loss.
Cash--Principal.................. 33,150
Cash--Income.................... }5
Gain on Realization of Principal
Assets
8% Mortgage Receivable......... 30,000
Accrued Interest on 8% Mortgage. }15
Estate Income................ }5
To record sale of mortgage at
a gain.
Cash--Principal
250
Assets Subsequently Discovered..
To record sale of assets not in
original inventory. (Students may
credit "Estate Principal." Such
procedures should be discouraged,
so that the account balance in
Estate Principal is equal to the
inventory valuation filed with
the probate court.)
Cash--Principal.................. 395,000
Loss on Realization of Principal
Assets...................... 5,000
Real Estate--Apartment House.... 400,000
To record sale of apartment
house at a loss.

```
\begin{tabular}{|c|c|c|c|}
\hline Jan． 20 & \begin{tabular}{l}
Funeral and Administrative Expenses \\
Cash－－Principal． \\
To record payment of funeral expenses．
\end{tabular} & 2，750 & 2，750 \\
\hline 23 & \begin{tabular}{l}
Debts of Decedent Paid．．．．．．．．．．． Cash－－Principal \\
To record payment of decedent＇s debts．
\end{tabular} & 8，000 & 8，000 \\
\hline 25 & Bequests Distributed（or more commonly，Legacies Distributed）．．．．．．．．．．．．．． Cash－－Principal．．．．．．．．．．．．．． To record payment of cash bequests． & 10，000 & 10，000 \\
\hline 31 & \begin{tabular}{l}
Bequests Distributed．．．．．．．．．．．．．．． Distributions to Income Beneficiary Cash－－Principal． \(\qquad\) \\
Cash－－Income． \\
To record payments to son， including all estate income：
\end{tabular} & \[
\begin{array}{r}
18,690 \\
1,310
\end{array}
\] & \[
\begin{array}{r}
18,690 \\
1,310
\end{array}
\] \\
\hline
\end{tabular}
\begin{tabular}{lc} 
Total payment．．．．．．．．．．．．．．． & \(\$ 20,000\) \\
Estate income．．．．．．．．．．．．． & \((1,310)\) \\
Paid from Principal．．．．．．．． & \(\$ 18,690\)
\end{tabular}
                    Paid from Principal
                                    \$18,690
                                    ニニニニニニニ
DIF: D OBJ: 6
15．Trent Tyler died on January 15，20X0．Records disclose the following estate：
\begin{tabular}{|c|c|}
\hline Cash in the bank & \＄15，000 \\
\hline 8\％note receivable，including \＄100 accrued interest． & 8，100 \\
\hline Stocks & 80，000 \\
\hline Dividends declared on stocks & 600 \\
\hline 10\％mortgage receivable，including \＄200 accrued interest & 40，200 \\
\hline Real estate－apartment house & 220， 000 \\
\hline Household effects & 21，500 \\
\hline Dividends receivable from Terry Tyler Trust Fund & 100，000 \\
\hline Total inventory of assets & \＄485，400 \\
\hline
\end{tabular}
Cash receipts：
\begin{tabular}{|c|c|c|}
\hline \multirow[t]{6}{*}{\[
\begin{aligned}
& \hline \text { Jan. } 20 \\
& 25
\end{aligned}
\]} & Dividends & \＄4，500 \\
\hline & 8\％note receivable & 8，000 \\
\hline & Interest on 8\％note receivable & 120 \\
\hline & Stocks sold，inventoried at \＄62，000 & 55，000 \\
\hline & 10\％mortgage sold & 46，000 \\
\hline & Interest accrued on mortgage & 300 \\
\hline 28 & Sale of assets not inventoried & 450 \\
\hline \multirow[t]{2}{*}{29} & Sale of apartment house & 210，000 \\
\hline & Total cash receipts & \＄324，370 \\
\hline
\end{tabular}
\begin{tabular}{|c|c|c|}
\hline \multirow[t]{5}{*}{Jan.} & Funeral Expenses & \$ 6,500 \\
\hline & Decedent's debts & 5,000 \\
\hline & Decedent's bequests distributed to widow. & 18,000 \\
\hline & Payment to son, including all estate income. & 35,000 \\
\hline & Total cash disbursements. & \$ 64,500 \\
\hline
\end{tabular}

Required:
Prepare a charge and discharge statement for the period January 15 through January 31, 20X0.

ANS:

> Estate of Trent Tyler Charge and Discharge Statement For the Period January 15 through January 31, \(20 \times 0\)

\section*{As to Principal}

I charge myself with:
Assets per original inventory... \$485,400
Assets subsequently discovered.. 450
Gain of disposal of mortgage... 6,000
I credit myself with:
Loss on realization of principal
assets:
Stocks....................... \$ 7,000
Apartment House............... 10,000
\$ 17, 000
Funeral and administrative expenses.

6,500
Debts of decedent paid.........
Bequests distributed to widow and son

5, 000
\(48,980^{1}\)
77,480
Balance as to principal, consisting of:
Cash--principal................ \$274,870²
Stocks......................... 18 , 000³
Household effects............... 21,500
Dividends receivable from Locke Trust.................. 100,000
\$414, 370
=======

As to Income
I charge myself with estate income:
Dividends.................................. \$ 3,900
Interest on 8\% note receivable........... 20
Interest on 10\% mortgage............... 100
\$ 4, 020
I credit myself with distribution
to income beneficiary
4, 020
Balance as to income
\$
0
```

1 \$18,000 + \$35,000 - (\$4,500 - \$600 + \$120 -
\$100 + \$300 - \$200) = \$48.980
2 \$15,000 + \$600 + \$8,100 + \$55,000 + \$46,200 +
\$450 + \$210,000 - \$6,500 - \$5,000 - \$48,980 = \$274,870
3 \$80,000 - \$62,000 = \$18,000
DIF: D OBJ: 6

```
16. Willie Walker, a widower, died on February 1, 20X1. He had no living relatives. The following selected events occurred after Walker's death:
(1) Mary Paxton, the executrix named in the will, filed an inventory of the estate assets consisting of:
Cash................................................. \(\$ 20,000\)
Owl Corporation 12\% bonds, paying interest semiannually on December 1 and June 1 (market value excluding interest, at date of death, \$91, 000)--face value
Eagle Corporation common stock.................... 38,000
Eagle Corporation cash dividend declared January 2, 20X1, payable February 15, 20X1, to holders of record as of January 25, 20X1 (state law stipulates that the date of record is the governing date).................................. 2,000
A pair of snowmobiles with trailer................... 5,000
Life insurance policy--face value.................. 60,000
The beneficiary named in the policy is dead. Since Walker did not designate a new beneficiary, the proceeds now go to the estate.
(2) Items charged by Walker (prior to his death) to his Diners Club card totaled \$390. These items were paid.
(3) The executrix prepared the final income tax return of the decedent, paying the income tax due of \(\$ 12,000\).
(4) The snowmobiles and trailer were sold for \(\$ 4,200\).
(5) The following payments were made:

Legal fees for assistance in probating the will.. 3,000
Funeral expenses...... ......................... 4,710
(6) The dividend on Eagle Corporation common stock was received.
(7) On June 1, a check for the semiannual interest on Owl Corporation bonds was received.
(8) A check for \(\$ 68,000\) was received from the life insurance agency. The additional \(\$ 8,000\) represents another policy not identified at the time of death.
(9) On December 1, a check for the semiannual interest on Owl Corporation bonds was received.
(10) The executrix's fee of \(\$ 8,000\) was approved for payment by the court. Payment was made, with \(\$ 500\) chargeable to income and the balance chargeable to principal.
(11) Walker's will stipulated that \(\$ 40,000\) be given to Carey Jackson, his housekeeper. The legacy was distributed on December 30, 20X1.

\section*{Required:}

Prepare journal entries to record the above events. Upon completion of the journal entries, prepare a double trial balance for the estate of Willie Walker as of December 31, 20X1.

ANS:

\section*{(1)}

Cash--Principal............................ 20,000
Owl Corporation 12\% Bonds................. 91,000
Accrued Interest Receivable
(\$70,000 x 12\% x 2 months)............ 1, 400
Eagle Corporation Common Stock........... 38,000
Dividends Receivable on Eagle
Corporation Stocks.................... 2,000
Snowmobiles and Trailer.................. 5,000
Life Insurance Policy.................... 60,000
Estate Principal........................
To record inventory of estate assets.
(2) Debts of Decedent Paid..................... 390

Cash--Principal.............................
To record Diner's Club payment.
(3) Debts of Decedent Paid................... 12,000

To record payment of final income tax.
(4) Cash--Principal.......................... 4,200

Loss on Realization of Principal Assets... 800
Snowmobiles and Trailer...............
5,000
To record sale of principal assets.
(5) Funeral and Administrative Expenses...... 7,710

Cash--Principal
To record payment of legal fees (\$3,000) and funeral expenses (\$4,710).
(6) Cash--Principal

2,000
Dividends Receivable on Eagle Corporation Stock 2,000
To record dividend received.
(7) Cash--Principal............................. 1, 400

Cash--Income............................... 2, 800
Accrued Interest Receivable............ 1,400
Estate Income
2,800
To record interest received, 6\% x \(\$ 70,000\), or \(\$ 4,200\), of which \(2 / 6\) is principal and \(4 / 6\) is income.


DIF: D
OBJ: 6

\section*{ESSAY}
1. What are some of the tax planning strategies which may be employed to reduce the tax on the decedent's gross estate?

\section*{ANS:}

A critical time for establishing tax planning strategies to minimize estate tax is well before death. Various divestitures and trusts can be used to manage one's taxable estate. In addition, one should be planning the following:

Maximizing the benefits of the marital deduction: this does not always mean transferring all assets to one's spouse upon death. Because of the progressive tax rate, this could have the result of overall higher taxes paid on the couple.

Making gifts during one's lifetime: although gifts are now included in the estate of the decedent, there is still a benefit of the annual gift allowance.

Taking actions to accomplish a step up in property value: Since assets are included in the estate at their market value, and they also transfer to the beneficiary at market value, the new tax basis becomes the market value. When that value has significantly appreciated, there is an elimination of a capital gains tax that would have been incurred had the property been sold for a gain.

Taking actions to benefit from a loss in property values: the opposite of step up, since the reduced value is the new tax basis, in order to take advantage of a capital loss, there should be an attempt to sell assets that have lost value in order to obtain the benefit of capital losses.

Maneuvering with charitable deductions
Planning liquidity

DIF: M OBJ: 3

\section*{Chapter 21 - Debt Restructuring, Corporate Reorganizations, and} Liquidations

\section*{MULTIPLE CHOICE}
1. Which of the following is an illustration of an action that can be taken to help a troubled firm without using the court system?
a. asset transfers to settle debt
b. equity interest granted in exchange for debt
c. modifications of interest rates more favorable to the firm
d. All or a combination can be used.

ANS: D DIF: E OBJ: 1
2. In a troubled debt restructuring where the debtor elects to transfer an equity interest to a creditor in exchange for the satisfaction of an outstanding debt:
a. the debtor may recognize a gain on restructure when the market value of the equity interest is greater than the book value of the debt plus any accrued interest
b. the debtor may recognize a gain on restructure when the market value of the equity interest is less than the book value of the debt plus any accrued interest
c. any difference between market value of equity interest and book value of the debt plus accrued interest must be recorded in Retained Earnings.
d. any difference between market value of equity interest and book value of the debt plus accrued interest must be recorded in Additional Paid in Capital in Excess of Par.

ANS: B
DIF: M
OBJ: 2
3. Equipment with a fair value of \(\$ 65,000\) and a cost basis of \(\$ 60,000\) is transferred to a creditor in partial settlement of a debt of \(\$ 150,000\) plus accrued interest of \(\$ 7,500\). The balance of the debt will be satisfied by 3 equal payments of \(\$ 30,000\) over the next three years. Which of the following journal entries best records the restructure?
a. Loan Payable .......................................... 150,000

Interest Payable ................................. 7,500
Equipment ........................ 60,000
Restructured Debt................ 90,000
Gain on Restructure ........... 7,500
b. Loan Payable

150,000
Loss on Restructure 5,000
Equipment
60, 000
Gain on Transfer of Equipment.
5,000
Restructured Debt.................
90,000
c. Loan Payable

150,000
Interest Payable
7,500
Equipmen
60,000
Gain on Transfer of Equipment.
5,000
Restructured Debt
90,000
Gain on Restructure .......... 2,500
d. Loan Payable

150,000
Interest Payable
7,500
Equipmen
65,000
Restructured Debt................. 90,000
Gain on Restructure ........... 2,500

ANS: C DIF: M OBJ: 2
4. In a quasi-reorganization, which of the following may occur?
a. Excess plant capacity may be sold
b. Assets may be revalued to reflect impaired values
c. Retained Earnings deficits are eliminated by changes made to the capital structure
d. All of the above may occur

ANS: D
DIF: E
OBJ: 2
5. In a quasi-reorganization, a debit balance in Retained Earnings (a deficit) is eliminated by
a. reducing paid-in capital or reorganization capital.
b. reducing future depreciation charges.
c. issuing more capital stock.
d. writing down assets to lower, but fair, values.

ANS: A
DIF: E
OBJ: 2
6. Which of the following is NOT a general objective of bankruptcy procedures?
a. assurance that all obligations of the debtor will be satisfied completely
b. attempt to give the debtor a fresh start
c. assurance of an equitable distribution of the debtor's property among creditors
d. None of the above is a general objective.

ANS: A DIF: E OBJ: 3
7. A voluntary bankruptcy petition can be filed under
a. Chapter 7.
b. Chapter 11.
c. Chapter 13.
d. All of the above chapters.

ANS: D
DIF: E
OBJ: 3
8. A plan of reorganization may include all EXCEPT which of the following?
a. arrangements involving elimination of some debt
b. identification of various classes of claims
c. identification of a trustee in liquidations
d. differentiation of impaired versus non-impaired interests

ANS: C DIF: M OBJ: 3
9. Lakeside Bank holds a \(\$ 100,000\) note secured by a building owned by Fly-By-Night Manufacturing, which has filed for bankruptcy under Chapter 7 of the Bankruptcy Code. If the property has a book value of \(\$ 120,000\) and a fair market value of \(\$ 90,000\), what is the best way to describe the note held by Second City Bank? The bank has a(n)
a. secured claim of \$100,000.
b. unsecured claim of \$100,000.
c. secured claim of \(\$ 90,000\) and an unsecured claim of \(\$ 10,000\).
d. secured claim of \(\$ 100,000\) and an unsecured claim of \(\$ 20,000\).

ANS: C DIF: M OBJ: 3
10. To assist the trustee, a debtor must
a. collect and reduce to money any non-exempt property
b. file progress reports with the court
c. file a statement of affairs, consisting of answers to a series of questions regarding debtor's financial condition
d. pay dividends to creditors with regards to priorities

ANS: C
DIF: E
OBJ: 3
11. Put the following classes in the order allowed by the Bankruptcy Act, starting with the highest priority to the lowest:
1) Expenses to administer estate
2) Tax claims of governmental units
3) Wages (including salaries and commissions) up to \$4,000 earned within 90 days
4) deposits up to \(\$ 1,800\) each for goods or services never received from the debtor
a. \(1,3,4,2\)
b. \(3,1,2,4\)
c. \(4,2,1,3\)
d. \(2,1,3,4\)

ANS: A
DIF: M
OBJ: 3
12. Which of the following statements is true?
a. Certain debts are not dischargeable.
b. The goal of liquidation is to give the company a new start.
c. All secured claims are paid in full.
d. The expenses to administer the estate are paid last because they are unsecured.

ANS: A DIF: E OBJ: 3
13. Which of the following does not describe the accounting statement of affairs?
a. the emphasis is on asset net realizable value, not historical cost
b. the statement of affairs is concerned only with the assets of the debtor organization, not the claims
c. the statement can also be used in a reorganization
d. the statement of affairs is based on estimated values; actual realized values may be different

ANS: B
DIF: E
OBJ: 4
14. The document used to estimate amounts available to each class of claims is called \(a(n)\)
a. Statement of Assets and Liabilities.
b. Legal Statement of Affairs.
c. Accounting Statement of Affairs.
d. Statement of Realization and Liquidation.

ANS: C DIF: E OBJ: 4
15. The document used by a trustee to report periodically on the status of fiduciary activities is called a(n)
a. Statement of Assets and Liabilities.
b. Legal Statement of Affairs.
c. Accounting Statement of Affairs.
d. Statement of Realization and Liquidation.

ANS: D
DIF: E
OBJ: 5
16. After eliminating the deficit in a reorganization plan, a balance may remain in Reorganization Capital. On the balance sheet, where would this account appear?
a. part of the Paid-In Capital
b. part of the dated balance in Retained Earnings
c. an Intangible Asset if the balance is a debit
d. a deferred credit amortized over a period not to exceed 40 years

ANS: A DIF: E OBJ: 2
17. Which of the following statements is true about Chapter 7 of the Bankruptcy Code?
a. Only voluntary petitions are allowed.
b. A debtor with at least 12 creditors may be subject to involuntary proceedings if 3 or more of those creditors hold noncontingent, unsecured claims of \$12,000 or more.
c. A debtor with fewer than 12 creditors may be subject to involuntary proceedings if 1 or more of those creditors holds noncontingent, unsecured claims of \(\$ 10,000\) or more.
d. The requirements for involuntary proceedings are identical to those for Chapter 13.

ANS:
DIF: M
OBJ: 3
18. The ratio called "dividend to general unsecured creditors" is calculated by which of the following formulas?
a. Estimated amount available for unsecured creditors with/without priority \(\div\) Total claims of all unsecured creditors with/without priority
b. Estimated realizable value of all debtor assets \(\div\) Book value of debtor assets
c. Estimated gain/loss on liquidation \(\div\) Total estimated net realizable value of debtor assets
d. Net estimated proceeds available to class 7 unsecured creditors \(\div\) Total claims of unsecured creditors

ANS: D DIF: M OBJ: 4
19. In the accounting statement of affairs, the gains or losses upon liquidation would equal
a. net book value of assets minus book value of liabilities.
b. the book value of assets minus their realizable value.
c. total estimated realizable value of assets minus the amount assigned to secured creditors.
d. total estimated realizable value of assets minus the amount remaining for Class 7 unsecured creditors.

ANS: B
DIF: M
OBJ: 4
20. A corporation's accounting statement of affairs shows a dividend of \(40 \%\). The dividend means that
a. all creditors and stockholders will receive approximately \(40 \%\) of the book value of their respective interests.
b. all creditors will receive an amount approximately equal to \(40 \%\) of the book value of their claims, but stockholders will receive nothing.
c. Class 1-6 unsecured claims will receive \(40 \%\) of the book value of their respective claims.
d. Class 7 unsecured claims will receive \(40 \%\) of the book value of their respective claims.

ANS: D DIF: M OBJ: 4
21. A corporation's accounting statement of affairs shows a dividend of 115\%. The dividend means that
a. secured creditors will receive an amount in excess of the book value of their claims.
b. unsecured creditors will receive an amount in excess of the book value of their claims.
c. stockholders may expect some return on their interests.
d. an error was made in the preparation of the statement.

ANS: C DIF: M OBJ: 4
22. Port Corporation is a parent, having purchased \(80 \%\) of Sand Company's common stock at par value for \$800,000. Sand Company is in financial difficulty. The parent granted an unsecured loan of \(\$ 400,000\) to the subsidiary. An accounting statement of affairs for Sand Company shows a dividend of \(40 \%\). Port Corporation can expect to receive payment for its investment in Sand Company of approximately \(\qquad\) .
a. \$640, 000
b. \$320,000
c. \$160,000
d. \$0

ANS: D DIF: M OBJ: 4
23. The Statement of Realization and Liquidation differs from the Statement of Affairs because
a. The Statement of Realization and Affairs reports estimated realizable values rather than actual liquidation results
b. The Statement of Realization and Affairs is a summary of secured debt activity only
c. The Statement of Realization and Affairs is prepared only at final completion of the liquidation process
d. The Statement of Realization and Affairs reports actual liquidation results rather than estimated realizable values

ANS: D
DIF: E
OBJ: 5
24. Equipment with a book values of \(\$ 120,000\) is sold in a liquidation process for cash of \(\$ 110,000\). This equipment was security for a \(\$ 150,000\) bank loan. Any remainder is consider unsecured, class 7. How would this transaction be reported on the Statement of Realization and Liquidation?
a. A reduction in non-cash assets of \$120,000
b. A loss reported to owner's equity of \(\$ 10,000\)
c. A disbursement of cash to the bank of \(\$ 110,000\), a reduction in partially secured liability of \(\$ 150,000\), and an increase in unsecured without priority liability of \$40,000
d. all of the above would occur

ANS: D DIF: M OBJ: 5
25. Tonya Fox has been appointed trustee under a Chapter 11 reorganization of Hen Corporation. The trustee has decided to open a new set of records for the period of trusteeship. Which of the following is true? a. Fox will transfer all assets and all liabilities at market values b. Fox will transfer all assets and all liabilities at book values c. Fox will transfer all assets at market values, but all liabilities at book values.
d. Fox will transfer only those assets accepted at their book values, but will transfer no liabilities.

ANS: D
DIF: M
OBJ: 2
26. John Shark has been appointed trustee under a Chapter 11 reorganization of Fishe Corporation. The trustee has decided to open a new set of records for the period of trusteeship. Which of the following accounts would Shark credit when the assets transferred are recorded on the trustee's books?
a. Fishe Corporation in Trusteeship
b. Assets Transferred for Lyon Corporation
c. Assets to Be Realized
d. John Shark, Trustee

ANS: A DIF: M OBJ: 3
27. T. P. Varnum has been appointed trustee under a Chapter 11 reorganization of Lyon Corporation. The trustee has decided to open a new set of records for the period of trusteeship. The trustee pays the balance of an account payable that was recorded prior to the date of stewardship. When payment is recorded on the trustee's books, the account debited is
a. Accounts Payable.
b. Accounts Payable-Lyon Corporation.
c. Retained Earnings.
d. an appropriate expense account.
ANS: B
DIF: E
OBJ: 3
28. A. B. Case has been appointed trustee under a Chapter 11 reorganization of Dee Corporation. The trustee has decided to open a new set of records for the period of trusteeship. The trustee pays the balance of an account payable that was recorded prior to the date of stewardship. Which of the following accounts would be credited on the corporation's books to record payment of the account payable mentioned?
a. Cash
b. Liabilities Liquidated
c. A. B. Case, Trustee
d. Retained Earnings

ANS: C
DIF: E
OBJ: 3

\section*{PROBLEM}
1. Hogan, Inc. is a telecommunications company. Currently, Hogan is experiencing difficulty in servicing its long-term debt. The corporation has obtained permission from its creditors to restructure outside of the court system with the following transactions:
a. A piece of equipment that had cost Hogan \$95,000 and had \$19,000 of accumulated depreciation was transferred to a creditor in full settlement of a \(\$ 45,000\) note with \(\$ 2,250\) of accrued interest.
b. 2,000 shares of \(\$ 2\) par value common stock were issued to a creditor in full payment of a \(\$ 80,000\) loan, plus accrued interest of \(\$ 800\). The stock was selling for \(\$ 30\) per share on the date of exchange.
c. A loan with a book value of \(\$ 50,000\) and accrued interest of \(\$ 1,000\) was restructured so that three annual installments of \$12,000 will satisfy both the principal and interest in full.

Required:
Prepare the necessary journal entries to record these transactions in the journal of Hogan.

ANS:
a. Loss on Transfer......................... 28, 750

Notes Payable......................... 45,000
Accrued Interest Payable............... 2,250
Accumulated Depreciation................ 19,000 Computer

80, 000
b. Loan Payable

800
95, 000

Accrued Interest Payable................
Common Stock
Paid-In Capital in Excess of Par.....
4, 000
Gain on Restructuring................
56, 000
20,800

    Accrued Interest Payable................... 1,000
    Restructured Loan Payable............... 36,000
    Gain on Restructuring............... 15,000

DIF: M OBJ: 1
2. Zenato's Corporation is a chain of sandwich shops that has recently had difficulty meeting its long-term debt requirements. In order to avoid court proceedings, the firm's creditors agreed to the following debt restructuring in December, 20X1:
a. A \(\$ 50,000\) note would be fully satisfied with a single \(\$ 40,000\) payment on March 1, 20X2. The note had accrued interest of \$2,000 on December 1, 20X1.
b. A \(\$ 75,000\) note with accrued interest of \(\$ 3,000\) will be fully satisfied with \(\$ 35,000\) payments on December 1, 20X2 and December 1, 20X3. The original interest rate on the note was 12\%.
c. A \(\$ 40,000\) note with no accrued interest will be satisfied with payments of \(\$ 23,048\) on December 1, 20X2 and December 1, 20X3. The old note carried a 15\% interest rate. The effective rate on the restructured note is \(10 \%\).

Required:
Prepare the journal entries to record the restructuring and payments of the notes.

ANS:
a. December 1, 20X1

Notes Payable........................ 50,000
Accrued Interest Payable.............. 2,000
Restructured Note Payable..........
40, 000
Gain on Restructuring
12,000
March 1, 20X2
Restructured Note Payable............ 40,000
Cash

75,000
Notes Payable
3,000
Accrued Interest Payable...
Restructured Note Payable
Gain on Restructuring...............
December 1, 20X2
Restructured Notes Payable........... 35,000
Cash

December 1, 20X3
Restructured Notes Payable........... 35,000
Cash................................... . .
35,000
```

c. December 1, 20X1
Notes Payable........................ 40,000
Restructured Notes Payable......... 40,000
December 1, 20X2
Restructured Notes Payable............ 19,048
Interest Expense..................... 4,000
Cash
December 1, 20X3
Restructured Notes Payable............ 20,953
Interest Expense...................... 2,095
Cash

```
DIF: M OBJ: 1
3. Following is the balance sheet of Tontoe Corporation on July 1, 20X5,
just prior to obtaining the required stockholder approval to undergo a
quasi-reorganization:
    Tontoe Corp.
Balance Sheet
July 1, 20X5
\begin{tabular}{|c|c|c|}
\hline \multicolumn{3}{|l|}{Assets} \\
\hline \multicolumn{3}{|l|}{Current Assets:} \\
\hline Cash. & \$ 5,000 & \\
\hline Accounts receivable & 110,000 & \\
\hline Inventory. & 105,000 & \\
\hline \multicolumn{3}{|l|}{Property, plant, and equipment:} \\
\hline Land........................ & \$ 50, 000 & \\
\hline Plant and equipment........... \$ 200,000 & & \\
\hline Less accumulated depreciation.. (120,000) & 80,000 & 130,000 \\
\hline Total assets. & & \$350, 000 \\
\hline Liabilities and Stockholders' & Equity & \\
\hline \multicolumn{3}{|l|}{Current Liabilities:} \\
\hline Accounts payable. & & \$100, 000 \\
\hline \multicolumn{3}{|l|}{Long-term Liabilities:} \\
\hline Notes payable & & 190,000 \\
\hline Common stock (\$10 par) & \$ 50,000 & \\
\hline Paid in excess of par & 25,000 & \\
\hline Retained earnings (deficit) & \((15,000)\) & 60,000 \\
\hline Total liabilities and stockholders' equity. & & \$350, 000 \\
\hline
\end{tabular}

Required:
Prepare the journal entries necessary to record the following items that were part of the quasi-reorganization:
a. Inventory is to be reduced to its fair market value of \$90, 000 .
b. The plant and equipment is to be revalued to \(\$ 70,000\) through the Accumulated Depreciation account.
c. Par value of the stock is reduced to \(\$ 1\) per share and the deficit is eliminated.

ANS:
\begin{tabular}{|c|c|c|}
\hline Retained Earnings & 15,000 & \\
\hline Inventory & & 15,000 \\
\hline b. Retained Earnings & 10,000 & \\
\hline Accumulated Depreciation & & 10,000 \\
\hline c. Common Stock (\$10 par) & 50,000 & \\
\hline Common Stock (\$1 par) & & 5,000 \\
\hline Reorganization Capital. & & 45,000 \\
\hline Reorganization Capital & 40,000 & \\
\hline Retained Earnings & & 40,000 \\
\hline
\end{tabular}

DIF: M OBJ: 2
4. Below is a list of unsecured items that may arise during a Chapter 7 liquidation.
a. Wages up to \(\$ 4,000\) earned within 90 days before the filing.
b. Tax claims of a government unit.
c. Debts incurred after commencement of involuntary bankruptcy but before the order for relief.
d. Claims of general creditors not granted priority.
e. Deposits up to \(\$ 1,800\) each for goods or services never received from the debtor.
f. Expenses to administer the estate.
g. Unpaid contributions to employee benefit plans arising from service performed up to 180 days before filing, up to \(\$ 4,000\) per employee covered.

Required:
Reorder the list of unsecured items by the priority they will receive to meet unsecured claims from amounts available.

ANS:
1. f. Expenses to administer the estate.
2. c. Debts incurred after commencement of involuntary bankruptcy but before the order for relief.
3. a. Wages up to \(\$ 4,000\) earned 90 days before the filing.
4. g. Unpaid contributions to employee benefit plans.
5. e. Deposits up to \(\$ 1,800\).
6. b. Tax claims of a government unit.
7. d. Claims of general creditors not granted priority.

DIF: M OBJ: 3
5. Morton Corporation has received permission to reorganize under Chapter 11. Just prior to recording the reorganization, the balance sheet appears as follows:


Required:
Record in journal form the following elements of the reorganization agreement. Assume that the adjustments to the assets and liabilities impact directly on reorganization capital.
a. The assets are to reflect their current values:

Accounts Receivable......... \$200,000
Inventory................... . worthless
Investments................. \$185,000
Plant Assets................. \$750,000
b. The holders of unsecured accounts payable agree to accept \$0.5 on the dollar.
c. The par value of the common stock is reduced to \(\$ 1.00\).
d. The deficit is eliminated.

ANS:
\begin{tabular}{|c|c|c|}
\hline a. Reorganization Capital & 365, 000 & \\
\hline Investments & 10,000 & \\
\hline Accounts Receivable & & 25,000 \\
\hline Inventory. & & 200, 000 \\
\hline Plant Assets & & 150, 000 \\
\hline b. Accounts Payable. & 300, 000 & \\
\hline Reorganization Capital & & 300, 000 \\
\hline c. Common Stock (\$5 par) & 400, 000 & \\
\hline Common Stock (\$1 par) & & 80,000 \\
\hline Reorganization Capital & & 320, 000 \\
\hline d. Reorganization Capital & 200, 000 & \\
\hline Retained Earnings & & 200, 000 \\
\hline
\end{tabular}

DIF: D OBJ: 2
6. Rockee Corporation, a bio-tech firm, has found itself in financial difficulty and may file for bankruptcy. Rockee's Statement of Affairs reflects the following summary information:
\begin{tabular}{|c|c|}
\hline Book value of as & \$700, 000 \\
\hline Net realizable value of asset & 370, 000 \\
\hline Total liabilities & 400, 000 \\
\hline Secured claims & 250, 000 \\
\hline Unsecured claims (Class 1-6) & 30, 000 \\
\hline
\end{tabular}

\section*{Required:}

Compute the following:
a. The deficiency traceable to unsecured creditors in Class 7.
b. The dividend to general unsecured creditors.
c. Rockee owes Flint Corporation \(\$ 9,000\) secured by inventory that is expected to realize \(\$ 7,000\). How much can Flint expect to receive on this claim?

ANS:

b. Dividend \(=\frac{\$ 370,000-\$ 250,000-\$ 30,000}{\$ 400,000-\$ 250,000-\$ 30,000}\)
\(=\$ 90,000=\$ .75\) on \(\$ 1.00\) \$120, 000
c. \(\$ 7,000+[(\$ 9,000-\$ 7,000) \times .75]=\$ 8,500\)

DIF: D OBJ: 3
7. On June 1, 20X5, the books of Hallow Corporation show assets with book values and realizable values as follows:

Assets


Hallow's books show the following liabilities:
Liabilities
\begin{tabular}{|c|c|}
\hline & Book Value \\
\hline Accounts payable & \$ 260,000 \\
\hline Wages payable (eligible for priority) & 10,000 \\
\hline Taxes payable. & 20,000 \\
\hline Accrued interest on notes payable & 30, 000 \\
\hline Accrued interest on mortgage payable & 20,000 \\
\hline \multicolumn{2}{|l|}{Notes payable (secured by receivables and} \\
\hline inventory) & 500, 000 \\
\hline Mortgage payable (secured by land and building) & 300, 000 \\
\hline Total. & \$1,140,000 \\
\hline
\end{tabular}

Required：
a．Prepare a schedule to determine the amount available for Class 7 unsecured claims．
b．Determine the dividend to Class 7 unsecured claims．
c．What amount are the note holders likely to receive？What is their dividend？

ANS：
```

a. Total estimated proceeds................. \$910,000
Less asset proceeds claimed by secured
creditors:
Notes payable and interest (from
proceeds of receivables and inventory).. \$150,000
Mortgage payable and interest (from
proceeds of land and building)......... 320,000
Total available to unsecured claimants. \ \$440,000
Less distributions to unsecured claims
with priority:
Wages payable......................... \$ 10,000
Taxes payable......................... 20,000 30,000
Amount available for Class 7 unsecured
claims
\$410,000
========
b. Unsecured portion of notes payable and
interest (\$500,000 + \$30,000 - \$150,000).. \$380,000
Accounts payable......................... 260,000
Total claims of Class 7 unsecured creditors \$640,000
Dividend to Class 7:
\$410,000/\$640,000 = 64.1%
c. Unsecured portion of notes payable and
interest............................... \$380,000
Dividend on unsecured amount............ x 64.1%
Amount received on unsecured portion..... \$243,580
Proceeds from receivables and inventory.. 150,000
Total Received........................ \$393,580
========

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    Dividend to note holders: \(\$ 393,580 \div \$ 530,000=74.3 \%\)
DIF: D

OBJ： 3
8. On June 1, 20X5, the books of Dremer Corporation show assets with book values and realizable values as follows:

Assets


Dremer's books show the following liabilities:

\section*{Liabilities}

Accounts payable (50,000 secured by inventory and equipment)................................. \$ 90,625
Wages payable (eligible for priority).........
3,775
Other Accrued Liabilities .................... 10,000
Accrued interest on notes payable.............. 375
Accrued interest on mortgage payable.......... 600
Notes payable (secured by Investment in Calandir
Stock)............................................
Mortgage payable (secured by land and building)
Total........................................................
70,000
\$185, 375
=======

Required:
Prepare an accounting Statement of Affairs including the computation of the dividend to Class 7 unsecured creditors.

ANS:
Dremer Corporation
Statement of Affairs
6-1-20X5



ANS :

Dremer Corporation
Statement of Realization and Liquidation
For the period 6/1/X5 to 6/30/X5
\begin{tabular}{|c|c|c|c|c|c|c|c|}
\hline \multirow[t]{3}{*}{} & \multicolumn{2}{|r|}{Assets} & \multicolumn{4}{|c|}{Liabilities} & \multirow[b]{3}{*}{Owners' Equity} \\
\hline & \multirow[b]{2}{*}{Cash} & \multirow[b]{2}{*}{Noncash} & \multirow[b]{2}{*}{Fully Secure} & \multirow[b]{2}{*}{Partial Secure} & \multicolumn{2}{|r|}{Unsecured} & \\
\hline & & & & & With Priority & Without Priority & \\
\hline 6/1/X5 Balances: & 1,850 & 224,500 & 80,975 & 50,000 & 3,775 & 50,625 & 40,975 \\
\hline Cash Receipts: & & & & & & & \\
\hline Securities Sale & 16,000 & \((5,800)\) & & & & & 10,200 \\
\hline N/R Collected & 15,000 & \((15,000)\) & & & & & 0 \\
\hline Equipment Sale & 7,000 & \((43,000)\) & & & & & \((36,000)\) \\
\hline Inventory Sale & 22,000 & (41, 000 ) & & & & & \((19,000)\) \\
\hline Cash Disbursemen & ts: & & & & & & \\
\hline Bank Loan & \((10,375)\) & & \((10,375)\) & & & & \\
\hline Part Pyt-A/P & \((29,000)\) & & & (50,000) & & 21,000 & \\
\hline 6/30 Balance & 22,475 & 119,700 & 70,600 & 0 & 3,775 & 71,625 & (3,825) \\
\hline
\end{tabular}

DIF: D OBJ: 5
10. The following post-closing trial balance has been prepared for Harper Corporation as of September 30, 20X4:
\begin{tabular}{|c|c|c|}
\hline Cash-overdraft & & 18,000 \\
\hline Notes receivable & 6,000 & \\
\hline Accrued interest receivable. & 900 & \\
\hline Accounts receivable & 66,000 & \\
\hline Allowance for uncollectible & & 9,000 \\
\hline Inventories & 90,000 & \\
\hline Land & 54,000 & \\
\hline Plant and equipment & 321, 000 & \\
\hline Accumulated depreciation & & 201,000 \\
\hline Notes payable & & 105,000 \\
\hline Accrued interest payable & & 6,000 \\
\hline Accounts payable. & & 126,000 \\
\hline Accrued salaries payable & & 24,900 \\
\hline Common stock (\$10 par) & & 240,000 \\
\hline Premium on common stock & & 27,000 \\
\hline Retained earnings (deficit). & 219,000 & \\
\hline & 756,900 & 756,900 \\
\hline
\end{tabular}

Notes receivable and accrued interest on these notes are expected to realize their book values.

Accounts receivable are expected to realize \(\$ 45,000\). The accounts receivable have been pledged to secure a note payable for \(\$ 30,000\) and accrued interest expense of \$2,400.

Inventories will realize approximately 60\% of their book value.
A real estate agent believes that the land and building and equipment could be sold for \(\$ 150,000\). The holder of a note payable of \(\$ 69,000\), with accrued interest thereon of \(\$ 3,600\), has a lien against the property for the full amount due.

All salaries qualify for priority.

\section*{Required:}
a. Prepare an accounting statement of affairs, for which the accountant's fee will be \(\$ 2,000\).
b. Compute the dividend for the Class 7 unsecured creditors.

ANS:
a. For the worksheet solution, please refer to Answer 21-1.
b. Divided to Class 7 unsecured creditors: \$124,000 \(\div\) \$150,000 = 83\%.

DIF: D OBJ: 4
11. Wayne Corporation, a manufacturer of farm machinery, had poor financial results last year because of a drought. Back orders indicate complete recovery this year. To eliminate a deficit that increased when the books were closed at the end of last year, the corporation has received stockholders' and state approval to conduct a quasi-reorganization on January 2.

Required:
Prepare journal entries as of January 2 to record the quasireorganization and the stockholders' equity section of its balance sheet immediately thereafter. The following data are pertinent:
a. Inventory at year-end is shown at FIFO cost of \(\$ 280,000\). Inventory is to be valued at replacement cost of \(\$ 250,000\).
b. Property, plant, and equipment are shown in the records at \(\$ 4,000,000\), net of accumulated depreciation. They are to be written down to fair value of \(\$ 3,100,000\).
c. Stockholders' equity consists of:

Common stock (\$10 par) 400,000 shares issued and outstanding............................................... \(\$ 4,000,000\)
Additional paid-in capital................................. 100 . 000
Retained earnings (deficit)................................... (2,600,000)
Total stockholders' equity.................................. \$ 1,500,000
===========

Par value of stock is to be reduced from \(\$ 10\) to \(\$ 1\) per share. Paid-in capital related to the former stock is to be canceled.
d. The deficit is to be eliminated.

ANS:
a. Reorganization Capital.................. 30,000

Inventory.................................. ..
To reduce inventory from FIFO cost to market.
b. Reorganization Capital.................. 900,000

Accumulated Depreciation (or Property, plant, and equipment)..............

900, 000
To reduce fixed assets to fair value.
c. Common Stock (\$10 par)................... 4, 000, 0000

Additional Paid-in Capital............... 100,000
Common Stock (\$1 par)
400, 000
Reorganization Capital.................. 3,700,000
To record issuance of \(\$ 1\) par to replace \(\$ 10\) par and its additional paid-in capital
d. Reorganization Capital................... \(2,600,000\)

Retained Earnings..................... 2,600,000
To eliminate the deficit.

DIF: D OBJ: 2
12. Kentucky Blue, Inc., a lawn care service corporation, is in serious financial difficulty with a deficit of \(\$ 2,100,000\). The company's plant and equipment were designed for highly specialized products and activities. Therefore, they would yield only a small fraction of their book value upon sale. Creditors realize that they will receive little if the corporation is dissolved. In view of the renewed interest in professional lawn care, a plan of reorganization under Chapter 11 was adopted and received the necessary approvals.

Required:
Prepare journal entries to record the following stipulations of the plan:
a. Replace the \(14 \%\) first mortgage bonds with face value of \(\$ 300,000\), on which there is \(\$ 13,000\) of unamortized premium, with \(10 \%\) interest bonds, with a face value of \(\$ 250,000\). To cover the accrued interest of \(\$ 42,000\) on the \(14 \%\) bonds, bondholders will receive 20,000 shares of new \(\$ 1\) par common stock.
b. Unsecured accounts and notes payable total \$200,000. Creditors have agreed to accept \(\$ 0.55\) on the dollar.
c. Replace the 10\%, \$100 par, cumulative participating preferred stock (of which 10,000 shares are outstanding, having a related paid-in capital in excess of par of \$170,000) with an equal number of shares of \(8 \%\), \(\$ 40\) par, noncumulative nonparticipating preferred stock. The corporation will no longer be liable for the \(\$ 100,000\) of undeclared dividends in arrears on the \(10 \%\) preferred stock.
d. Replace the 200,000 shares of \(\$ 10\) par common stock, having a discount of \(\$ 80,000\), with an equal number of \(\$ 1\) par common shares.
e. Eliminate the deficit.

ANS:
```

a. First Mortgage 14% Bonds Payable.......... 300,000
Unamortized Premium on 14% Bonds.......... 13,000
10% Bonds Payable.......................
Reorganization Capital..................
To replace 14% bonds with 10% bonds.
Accrued interest on 14% Bonds Payable..... 42,000
Common Stock (\$1 par)..................
Reorganization Capital................
To substitute 20,000 shares of common
for accrued interest.
b. Accounts and Notes Payable............... 90,000
Reorganization Capital..................
Creditors accepted plan to pay \$.55 on
the Dollar.
c. 10% Cumulative Participating Preferred
Stock
1,000,000
Paid-in Capital in Excess of Par on
Preferred............................... 170,000
8% Noncumulative Nonparticipating
Preferred Stock.......................
400,000
Reorganization Capital................ 770,000
To replace \$100 par preferred with
\$40 par preferred stock.
d. Common Stock (\$10 par)................... 2,000,000
Discount on Common Stock............... 80,000
Common Stock (\$1 par).................. 200,000
Reorganization Capital................. 1,720,000
To record replacement of common stock.
e. Reorganization Capital................... 2,100,000
Retained Earnings..................... 2,100,000
To eliminate the deficit.
DIF: D OBJ: 3

```
13. As of June 30, 20X4, the Lillie Corporation has the following assets, liabilities, and owners' equity:
\begin{tabular}{|c|c|}
\hline Assets & Book Value \\
\hline Cash. & \$ 10,000 \\
\hline Marketable securities & 30,000 \\
\hline Accounts receivable (net) & 40, 000 \\
\hline Inventories & 100,000 \\
\hline Land & 50,000 \\
\hline Buildings (net) & 140, 000 \\
\hline Machinery (net) & 105,000 \\
\hline Goodwill. & 40,000 \\
\hline Total & \$515, 000 \\
\hline Liabilities and Owners' Equity & Book Value \\
\hline Accounts payable & \$ 100,000 \\
\hline Accrued income tax. & 10,000 \\
\hline Accrued mortgage interest & 20,000 \\
\hline Accrued salaries expense. & 30,000 \\
\hline Mortgage payable. & 200, 000 \\
\hline Common stock (\$10 par) & 200,000 \\
\hline Additional Paid-in capital & 201, 000 \\
\hline Deficit & (246,000) \\
\hline Total & \$ 515,000 \\
\hline
\end{tabular}

The following is provided:
Marketable securities have a market value of \(\$ 24,000\). Accounts receivable are estimated to produce \(\$ 30,000\). The sale of inventories should yield \$120,000, \$20,000 of which must be assigned to a creditor (account payable) who is owed \(\$ 24,000\). The land and buildings can be sold for \(\$ 2,000\) with the buyer assuming the mortgage and its unpaid interest. The machinery will realize \(\$ 50,000\). All salaries qualify for priority.

\section*{Required:}

Prepare a statement of affairs including the calculation of the dividend to Class 7 unsecured claims.

ANS:
For the worksheet solution, please refer to Answer 21-2.

DIF: D
OBJ: 4
14. Mallory Corporation is being liquidated under Chapter 7 of the Bankruptcy Act. On May 1, 20X5, you are appointed the court's trustee for the liquidation. The Acme book values for assets and liabilities, on May 1, 20X5, were as follows:
\begin{tabular}{|c|c|}
\hline Cash & \$ 4, 000 \\
\hline Accounts receivable (net) & 80,000 \\
\hline Inventories & 200, 000 \\
\hline Land and building (net) & 340, 000 \\
\hline Machinery (net) & 100, 000 \\
\hline Accounts payable & 180, 000 \\
\hline Salaries payable & 60, 000 \\
\hline Income tax payable & 14,000 \\
\hline Trustee's fee payable & 20,000 \\
\hline Mortgage payable & 240,000 \\
\hline Bank loan payable & 90, 000 \\
\hline
\end{tabular}

During May through July of 20X5, the following occurred:
The mortgage is secured by the land and building and the bank loan is secured by the machinery. The accounts payable are secured by the inventories.

Three-fourths of the accounts receivable were collected. Of the remaining accounts, \$10,000 are believed to be uncollectible.

The inventories were sold for \(\$ 170,000\).
The land and building were sold for \(\$ 20,000\) and assumption of the mortgage. The machinery sold for \(\$ 70,000\) and the proceeds were remitted to the bank.

Salaries payable and \(\$ 170,000\) of the accounts payable were paid.

Required:
Complete the Figure 21-A Statement of Realization and Liquidation for May, June, and July of 20X5.

ANS:
For the worksheet solution, please refer to Answer 21-3.
```

DIF: D
OBJ: 5

```

\section*{ESSAY}
1. Describe the options that are available to a corporation that is unable to service its debts on a timely basis but that does NOT require court action.

ANS:
Several remedies are available to a corporation who wants to avoid court action. One such way is a troubled debt restructuring. This is a process where creditors grant special concessions to the debtor. The most common forms of restructuring are:

Transfer of Assets to settle a debt
Granting an equity interest in settlement of a debt Modification of terms, either payments, interest, principal, or a combination

A corporation can also combine the methods listed above. Gains or losses can be recognized on the transfer of assets and gains can also be recognized on the restructure process itself.

DIF: M
OBJ: 1, 2
2. Describe the duties of the trustee in a Chapter 7 liquidation.

ANS:
Chapter 7 requires that a court appoint a trustee which can be changed by the creditors. The trustee's duties are extensive including:
a. Sell the non-exempt property of the estate to convert to cash
b. Account for all cash received and disbursed; account for any property received.
c. Investigate the financial affairs of the debtor, including any forms filed by the debtor
d. Examine proofs of claim and disallow any improper claim
e. Furnish information requested by a party of interest, where reasonable
f. Operate the business of the debtor if authorized to do so by the court.
g. Pay dividends to creditors as promptly as possible, with regard for priorities
h. File progress reports on liquidation and a final report with detailed statement of receipts and disbursements

DIF: E
OBJ: 3
3. Differentiate by function the Accounting Statement of Affairs and the Statement of Realization and Liquidation.

ANS:
The Accounting Statement of Affairs is used primarily to report the estimated amounts available to each class of creditor during a liquidation or reorganization.

The Statement of Realization and Liquidation is a legal form filed by a trustee to inform the court of the fiduciary's activities during a specified period.

DIF: E
OBJ: 5
[[Insert FIGURE 21-A from Excel spreadsheet]]
[[Insert ANSWER 21-1 from Excel spreadsheet]]
[[Insert ANSWER 21-2 from Excel spreadsheet]]
[[Insert ANSWER 21-3 from Excel spreadsheet]]```

