**APPENDIX E**

**Answers to EOC Questions, Mini-Exercises, Multiple Choice Questions,**

**and Assigned Exercises and Problems.**

ANSWERS TO QUESTIONS

1. A short-term investment is one that meets the two tests of (1) ready marketability and (2) management intention to convert it to cash in the short run. In contrast, a long-term investment is one that does not meet both of these tests. Most long-term investments are marketable securities, either stocks or bonds. A short-term investment is classified as a current asset on the balance sheet, while long-term investments are reported as noncurrent assets.
2. For passive investments in bonds, companies may report the investment at unamortized cost if the intent is to hold the bonds until maturity. Otherwise, the investments in bonds are to be accounted for using the same fair value method as is used for passive investments in equity securities. Each year end, the investments are adjusted to fair value. Passive equity investments are those in which the investor has less than 20% of the outstanding shares of voting common stock, unless there is evidence to the contrary.

When a company can exert significant influence over the investing and financing decisions of another company, the equity method is used to account for and report the investment. In applying the equity method, considered a “one-line consolidation,” dividends received from the affiliate company reduce the investment account; the investor’s percentage share of the affiliate’s net income or loss is included as income or loss on the investor’s income statement with a corresponding change in the investment account. The ability to exert significant influence over an affiliate company is presumed if the investor owns between 20% and 50% of the outstanding shares of voting common stock.

When an investor owns over 50% of the outstanding shares of voting common stock, the investor has control over the affiliate. Consolidated statements are prepared.

1. Only bonds that management has the plans and ability to hold until maturity can be reported in the held-to-maturity portfolio. The investment in held-to-maturity bonds is reported on the balance sheet at unamortized cost, not fair value, at the end of each year.

4. When shares of capital stock of another company are purchased as an investment, they are measured and recorded at cost in accordance with the cost principle. Cost is defined as the total expenditures incurred in obtaining the other shares. The total outlay includes the market price plus all commissions and other buying costs.

5. Under the fair value method, revenues are measured by the investor company in periods during which the other company declares a cash dividend. Unrealized gains and losses are recorded when the stock price increases or decreases.

6. Under the equity method, investment revenue is measured on a proportionate basis by the investor company when earnings are reported by the affiliate company, rather than when the dividends are received. This is because the equity method is applied in the situation where the investor company has a sufficient number of the shares of voting stock of the other company to exercise a significant influence. When a significant influence can be exercised over the dividend policies of another corporation, it means that income of the other corporation can be obtained, almost at will, by the investor company. Thus, when the affiliate company reports income, the investor company should record a proportionate share of that income as investment revenue because it is considered earned under the requirements of the revenue principle.

7. Under the equity method, dividends received from the affiliate company (the other company) are not recorded as revenue because to record the dividends as revenue would involve double counting. There would be double counting because the investor company has already shown, as revenue earned, its proportionate share of the earnings of the affiliate company. Because the dividends from the affiliate company are paid out of those earnings, to record them as revenue by the investor company would be double counting. As a consequence, under the equity method, a dividend received from the affiliate company is debited to Cash and credited to the Investment account.

 8. The identifiable assets and liabilities of the acquired company are recorded at their fair values on the date of acquisition. This is called the acquisition method.

9. Goodwill is only recorded when one company purchases a controlling interest in another. Goodwill is equal to the purchase price minus the fair value of the identifiable assets less liabilities of the acquired company. The goodwill must be recognized as an asset and is not expensed unless impaired.

MULTIPLE CHOICE

 1. b

 2. a

 3. b

 4. d

 5. c

 6. c

 7. b

 8. d

 9. d

10. c

MINI-EXERCISES

**ME–1.**

|  |  |
| --- | --- |
| D | 1. Less than 20 percent ownership. |
| D | 2. Current fair value. |
| C | 3. More than 50 percent ownership. |
| B | 4. At least 20 percent but not more than 50 percent ownership. |
| A | 5. Bonds held to maturity. |
| A | 6. Original cost less any amortization of premium or discount associated with the  |
|  |  purchase. |
| B | 7. Original cost plus proportionate part of the income of the affiliate less |
|  |  proportionate part of the dividends declared by the affiliate. |

**ME –2.**

|  |  |  |  |
| --- | --- | --- | --- |
| Held-to maturity investments (+A)  | 900,000 |  |  |
|  Cash (−A)  |  |  | 900,000 |

**ME –3.**

December 2, 2014:

|  |  |  |  |
| --- | --- | --- | --- |
|  Investments in AFS securities (+A)  | 93,750 |  |  |
|   Cash (−A)  |  |  | 93,750 |
| (6,250 shares x $15 per share); 12.5% ownership of voting stock |

December 15, 2014:

|  |  |  |  |
| --- | --- | --- | --- |
|  Cash (+A)  | 12,500 |  |  |
|   Dividend revenue (+R, +SE)  |  |  | 12,500 |
| (6,250 shares x $2 = $12,500) |  |  |  |

December 31, 2014:

|  |  |  |  |
| --- | --- | --- | --- |
|  Net unrealized gains (losses) (−OCI, −SE)  | 18,750 |  |  |
|   Investments in AFS securities (**−**A)  |  |  | 18,750 |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Year | Fair Value | − | Book Value before Adjustment | = | Amount for Adjusting Entry |
| 2014 | $75,000(6,250 x $12) | − | $93,750  | = | −$18,750Unrealized loss |

ME–4.

December 2, 2014:

|  |  |  |  |
| --- | --- | --- | --- |
|  Investments in TS (+A)  | 93,750 |  |  |
|   Cash (−A)  |  |  | 93,750 |
| (6,250 shares x $15 per share); 12.5% ownership of voting stock |

December 15, 2014:

|  |  |  |  |
| --- | --- | --- | --- |
|  Cash (+A)  | 12,500 |  |  |
|   Dividend revenue (+R, +SE)  |  |  | 12,500 |
| (6,250 shares x $2 = $12,500) |  |  |  |

December 31, 2014:

|  |  |  |  |
| --- | --- | --- | --- |
|  Net unrealized gains (losses) (+Loss, −SE)  | 18,750 |  |  |
|   Investments in TS (−A)  |  |  | 18,750 |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Year | Fair Value | − | Book Value before Adjustment | = | Amount for Adjusting Entry |
| 2014 | $75,000(6,250 x $12) | − | $93,750  | = | −$18,750 |

ME–5.

|  |  |  |
| --- | --- | --- |
|  | Balance Sheet | Income Statement |
| Transaction | Assets | Liabilities | Stockholders’ Equity | Revenues/Gains | Expenses/Losses | Net Income |
| 12/2 | +93,750–93,750 |  |  |  |  |  |
| 12/15 | +12,500 |  | +12,500 | +12,500 |  | +12,500 |
| 12/31 | –18,750 |  | –18,750 |  |  |  |

ME–6.

|  |  |  |
| --- | --- | --- |
|  | Balance Sheet | Income Statement |
| Transaction | Assets | Liabilities | Stockholders’ Equity | Revenues/Gains | Expenses/Losses | Net Income |
| 12/2 | +93,750–93,750 |  |  |  |  |  |
| 12/15 | +12,500 |  | +12,500 | +12,500 |  | +12,500 |
| 12/31 | –18,750 |  | –18,750 |  | +18,750 | –18,750 |

ME–7.

July 2, 2014:

|  |  |  |  |
| --- | --- | --- | --- |
|  Cash (+A)  | 4,000,000 |  |  |
|   Investments in affiliates (**−**A)  |  |  | 4,000,000 |
|  (800,000 shares x $5 = $4,000,000); 35% ownership |  |  |  |

December 31, 2014:

|  |  |  |  |
| --- | --- | --- | --- |
|  Investments in affiliates (+A)  | 140,000 |  |  |
|   Equity in affiliate earnings (+R, +SE)  |  |  | 140,000 |
|  (35% x $400,000) |

ME–8.

|  |  |  |
| --- | --- | --- |
|  | Balance Sheet | Income Statement |
| Transaction | Assets | Liabilities | Stockholders’ Equity | Revenues/Gains | Expenses/Losses | Net Income |
| 7/2 | +4,000,000–4,000,000 |  |  |  |  |  |
| 12/31 | +140,000 |  | +140,000 | +140,000 |  | +140,000 |

ME–9.

|  |  |  |  |
| --- | --- | --- | --- |
| Property and equipment (+A)  | 750,000 |  |  |
| Goodwill (+A)  | 85,000 |  |  |
|   Bonds payable (+L)  |  |  | 175,000 |
|  Cash (–A)  |  |  | 660,000 |

ME–10.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  |  | 2015 |  | 2016 |  | 2017 |
| Dividends + Change in Fair Value\* |  | $3,000 + $6,000 |  | $4,200 + $12,000 |  | $3,500 - $2,000 |
| Beginning Fair Value of Investments |  | $64,000 |  | $70,000 |  | $82,000 |
|  |  |  |  |  |  |  |
| Economic return from investing | = | .1406 (14.06%) |  | .2314 (23.14%) |  | .0183 (1.83%) |

\* 2015: $70,000 - $64,000 = $6,000 increase in fair value

 2016: $82,000 - $70,000 = $12,000 increase in fair value

 2017: $80,000 - $82,000 = $2,000 decrease in fair value

Economic return from investing ratio measures the performance of a securities investment portfolio during the year. For N.M.S. Company, the return was 14.06% in 2015 and increased to 23.14% in 2016. However, the return dropped significantly in 2017 to 1.83%, primarily due to a decline in the fair value of the securities.

ME–11.

Disney reports a large amount of goodwill because it has purchased other businesses, paying more than the fair market value of the net assets (assets – liabilities) of the acquired companies.

EXERCISES

EE–3.

June 30, 2014:

|  |  |  |  |
| --- | --- | --- | --- |
|  Investments in AFS securities (+A) (7,000 shares x $15)  | 105,000 |  |  |
|   Cash (–A)  |  |  | 105,000 |

Dec. 31, 2014:

|  |  |  |  |
| --- | --- | --- | --- |
|  Investments in AFS securities (+A)..  | 14,000 |  |  |
|   Net unrealized gains (losses) (+OCI, +SE)  |  |  | 14,000 |

Dec. 31, 2015:

|  |  |  |  |
| --- | --- | --- | --- |
|  Net unrealized gains (losses) (–OCI, –SE)  |  21,000 |  |  |
|   Investments in AFS securities (–A).  |  |  | 21,000 |

Dec. 31, 2016:

|  |  |  |  |
| --- | --- | --- | --- |
|  Investments in AFS securities (+A).  | 28,000 |  |  |
|   Net unrealized gains (losses) (+OCI, +SE)  |  |  | 28,000 |
|  |  |  |  |

Computations:

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Year | Fair Value | − | Book Value before Adjustment | = | Amount for Adjusting Entry |
| 2014 | $119,000($17 x 7,000) shares | − | $105,000($15 x 7,000 shares) | = | +$14,000 |
| 2015 |  98,000($14 x 7,000 shares) | − |  119,000(from prior fair value) | = | − 21,000 |
| 2016 |  126,000($18 x 7,000 shares) | − |  98,000(from prior fair value) | = | + 28,000 |
|  |  |  | Balance in Net Unrealized Gains (Losses) |  |  +$21,000 |

Feb. 14, 2017:

|  |  |  |  |
| --- | --- | --- | --- |
|  Cash (+A) (7,000 shares x $20).  | 140,000  |  |  |
|  Net unrealized gains (losses) (–OCI, –SE)  | 21,000 |  |  |
|   Investments in AFS securities (–A).  |  |  | 126,000 |
|   Gain on sale of investment (+Gain, +SE)  |  |  | 35,000 |

Note: The net unrealized gains (losses) account is a balance sheet account. It does not affect the computation of net income each year. Because it is a balance sheet account, it maintains its balance from year to year. Therefore, the decline in stock price that occurs in 2015 is reported as an adjustment to the net unrealized gains (losses) account. When the stock is sold in 2017, the net unrealized gains (losses) is closed, and the difference between the purchase price (original cost) and the selling price is reported as a gain on the income statement.

**EE–4.**

June 30, 2014:

|  |  |  |  |
| --- | --- | --- | --- |
|  Investments in TS (+A)  | 105,000  |  |  |
|   Cash (–A)  |  |  | 105,000  |
| (7,000 shares x $15 per share) |  |  |  |

Dec 31, 2014:

|  |  |  |  |
| --- | --- | --- | --- |
|  Investments in TS (+A)  | 14,000 |  |  |
|   Net unrealized gains (losses) (+Gain, +SE)  |  |  | 14,000 |

Dec. 31, 2015:

|  |  |  |  |
| --- | --- | --- | --- |
|  Net unrealized gains (losses) (+Loss, –SE)  |  21,000 |  |  |
|   Investments in TS (–A)  |  |  | 21,000 |

Dec. 31, 2016:

|  |  |  |  |
| --- | --- | --- | --- |
|  Investment in TS (+A).  | 28,000 |  |  |
|   Net unrealized gains (losses) (+Gain, +SE)  |  |  |  28,000 |

Computations:

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Year | Fair Value | − | Book Value before Adjustment | = | Amount for Adjusting Entry |
| 2014 | $119,000($17 x 7,000) shares | − | $105,000($15 x 7,000 shares) | = | +$14,000 |
| 2015 |  98,000($14 x 7,000 shares) | − |  119,000(from prior fair value) | = | − 21,000 |
| 2016 |  126,000($18 x 7,000 shares) | − |  98,000(from prior fair value) | = | + 28,000 |

Feb. 14, 2017:

|  |  |  |  |
| --- | --- | --- | --- |
| Cash (+A) (7,000 shares x $20)  | 140,000  |  |  |
|  Gain on sale of investment (+Gain, +SE)  |  |  | 14,000 |
|  Investments in TS (–A).  |  |  | 126,000 |
|  |  |  |  |

Note: The net unrealized gains (losses) is an income statement account. This item is reported on the current income statement and affects the computation of net income. It is closed to Retained Earnings at the end of each year.

**EE–7.**

Req. 1

The equity method must be used because the company owns 27.5% (17,875 ÷ 65,000) of the total shares outstanding of Tristezza Corporation. The equity method must be used when there is at least 20% but not more than 50% ownership in existence. The Gioia Company must use the equity method because it can exercise significant influence, but not control, over the operating and financing policies of Tristezza Corporation.

Req. 2

January 10, 2014:

|  |  |  |  |
| --- | --- | --- | --- |
|  Investments in affiliates (+A)  | 196,625 |  |  |
|   Cash (–A)  |  |  | 196,625 |
| (17,875 shares x $11 per share) 🡪 27.5% of the voting common stock |

December 31, 2014:

|  |  |  |  |
| --- | --- | --- | --- |
|  Investments in affiliates (+A).  | 22,000 |  |  |
|   Equity in affiliate earnings (+R, +SE)  |  |  | 22,000 |
| ($80,000 x 27.5% = $22,000) |

December 31, 2014:

|  |  |  |  |
| --- | --- | --- | --- |
|  Cash (+A)  | 10,725 |  |  |
|   Investments in affiliates (–A).  |  |  | 10,725 |
| (17,875 shares x $.60 = $10,725) |

No entry is made under the equity method to record changes in fair value.

Req. 3

Balance Sheet—At December 31, 2014

|  |  |
| --- | --- |
| *Long-term Investments:* |  |
| Investments in affiliates (equity basis\*)  | $207,900 |

Income Statement—For the Year Ended December 31, 2014

|  |  |
| --- | --- |
| Equity in affiliate earnings  | $ 22,000 |

\* Investments in Affiliates

|  |  |
| --- | --- |
| Cost 196,625 |  |
| % Affiliate’s net income 22,000 | 10,725 % Affiliate’s dividends declared |
| 207,900 |  |

**ASSIGNED PROBLEMS**

**PE–2.**

Req. 1

March 1, 2014

|  |  |  |  |
| --- | --- | --- | --- |
|  Investments in TS (+A) (20,000 shares x $10 per share)  | 200,000 |  |  |
|   Cash (–A)  |   |  | 200,000 |

Dec. 31, 2014

|  |  |  |  |
| --- | --- | --- | --- |
|  Net unrealized gains (losses) (+Loss, –SE)  | 40,000 |  |  |
|   Investments in TS (–A)  |  |  | 40,000 |

Dec. 31, 2015

|  |  |  |  |
| --- | --- | --- | --- |
|  Investments in TS (+A)  | 120,000 |  |  |
|   Net unrealized gains (losses) (+Gain, +SE)  |  |  | 120,000 |

Dec. 31, 2016

|  |  |  |  |
| --- | --- | --- | --- |
|  Investments in TS (+A)  |  60,000 |  |  |
|   Net unrealized gains (losses) (+Gain, +SE)  |  |  | 60,000 |

Req. 2

March 1, 2014

|  |  |  |  |
| --- | --- | --- | --- |
|  Investments in AFS securities (+A)  | 200,000 |  |  |
|   Cash (–A)  |  |  | 200,000 |

Dec. 31, 2014

|  |  |  |  |
| --- | --- | --- | --- |
|  Net unrealized gains (losses) (–OCI, –SE)  | 40,000 |  |  |
|   Investments in AFS securities (–A)  |  |  | 40,000 |

Dec. 31, 2015

|  |  |  |  |
| --- | --- | --- | --- |
|  Investments in AFS securities (+A)  | 120,000 |  |  |
|   Net unrealized gains (losses) (+OCI, +SE)  |  |  | 120,000 |

Dec. 31, 2016

|  |  |  |  |
| --- | --- | --- | --- |
|  Investments in AFS securities (+A)  | 60,000 |  |  |
|   Net unrealized gains (losses) (+OCI, +SE)  |   |  | 60,000 |

Computations:

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Year | Fair Value | − | Book Value before Adjustment | = | Amount for Adjusting Entry |
| 2014 | $160,000($8 x 20,000) shares | − | $200,000($10 x 20,000 shares) | = | −$40,000 |
| 2015 |  280,000($14 x 20,000 shares) | − |  160,000(from prior fair value) | = |  + 120,000 |
| 2016 | 340,000($17 x 20,000 shares) | − |  280,000(from prior fair value) | = |  + 60,000 |
| Balance in Net Unrealized Gains (Losses) for AFS Securities | +$140,000 |

**PE–7.**

Req. 1

|  |  |  |
| --- | --- | --- |
| CASE A |  | The fair value method must be used by the company because it owns 12.5% (15,000 ÷ 120,000) of the total shares of the outstanding common stock of Surge Corporation. The fair value method must be used when less than 20% of the outstanding stock is owned because the investor cannot exercise either significant influence or control. |
|  |  |  |
| CASE B |  | The equity method must be used by the company because it owns 40% (48,000 ÷ 120,000) of the total shares of the outstanding common stock of Surge Corporation. The equity method must be used when at least 20% but not more than 50% of the outstanding stock is owned, because the investor can exercise significant influence, but not control, over the operating and financing policies of the other company. |

Req. 2

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  |  | Case A-12.5% |  | Case B-40% |
| a. | Jan. 10, 2014 purchase: |  |  |  |  |  |  |  |
|  | Investments in AFS securities (+A)  | 375,000 |  |  |  |  |  |  |
|  |  Cash (–A)  |  |  | 375,000 |  |  |  |  |
|  | (15,000 shares x $25)  |  |  |  |  |  |  |  |
|  | Investments in affiliates (+A)  |  |  |  |  | 1,200,000 |  |  |
|  |   Cash (–A)  |  |  |  |  |  |  | 1,200,000 |
|  | (48,000 shares x $25) |  |  |  |  |  |  |  |
| b. | Net income of Surge Co.:  | None1 |  |  |  |  |  |  |
|  | Investments in affiliates (+A)  |  |  |  |  | 70,000 |  |  |
|  |   Equity in affiliate earnings (+R, +SE) ($175,000 x 40%) |  |  |  |  |  |  | 70,000 |
| c. | Dividends paid by Surge Corporation: |  |  |  |  |  |  |  |
|  | Cash (+A)  | 15,000 |  |  |  |  |  |  |
|  |  Dividend revenue (+R, +SE)  |  |  | 15,000 |  |  |  |  |
|  | (15,000 shares x $1) |  |  |  |  |  |  |  |
|  | Cash (+A)  |  |  |  |  | 48,000 |  |  |
|  |  Investments in affiliates (–A)  |  |  |  |  |  |  | 48,000 |
|  | (48,000 shares x $1)  |  |  |  |  |  |  |  |
| d. | Year-end valuation: |  |  |  |  |  |  |
|  | Net unrealized gains (losses) (–OCI, –SE) | 30,000 |  |  |  | None2 |  |  |
|  |  Investments in AFS securities (–A)  |  |  |  30,000 |  |  |  |  |
|  | [15,000 x ($23 fair value – $25 cost) = −$30,000] |  |  |  |  |  |

1 Not recorded under fair value method**. 2** Not recorded under the equity method.

Req. 3

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  |  | Case A |  | Case B |
| a. | Balance Sheet: |  |  |  |
|  | Long-term Investments: |  |  |  |
|  |  Investments in AFS securities, at fair value (1)  | $345,000 |  |  |
|  |  Investments in affiliates (2)  |  |  | $1,222,000 |
| b. | Stockholders’ Equity |  |  |  |
|  |  Other comprehensive income: |  |  |  |
|  |   Net unrealized losses/gains  | (30,000 | ) |  |
| c. | Income Statement: |  |  |  |
|  |  Dividend revenue  Equity in affiliate earnings  | 15,000 |  | 70,000 |

1. Cost $375,000 – Year-end adjustment to fair value $30,000 = Fair value $345,000 reported on the balance sheet
2. Cost $1,200,000 + % Affiliate’s net income $70,000 – % Affiliate’s dividends declared $48,000 = $1,222,000 reported on the balance sheet

Req. 4

The amounts reported in Requirement (3) are different because of (1) the two different approaches used in recognizing investment revenue and (2) adjustments for changes in fair value that are made only under the fair value method.