IV. Test Questions and Solutions

Chapter 1

Multiple Choice

1. What basic financial statements can be found in a corporate annual report?
   c. Earnings statement and statement of retained earnings.
   d. Statement of cash flows and five-year summary of key financial data.

2. What information can be found on a balance sheet?
   a. Information to support that assets equal liabilities.
   b. The profit or loss for the accounting period.
   c. The financial position on a particular date; i.e. assets, liabilities and shareholders' equity.
   d. The reasons for changes in the cash account.

3. What information can be found on an income statement?
   a. Revenues, expenditures, net profit or loss and net profit or loss per share.
   b. Cash inflows and cash outflows.
   c. A reconciliation of the beginning and ending balances of all revenue accounts.
   d. The financing and investing activities during an accounting period.

4. Where are the possible places that the four financial statements can be found?
   a. In the Form 10-K filed annually with the SEC.
   b. In the annual report mailed to shareholders.
   c. In the company’s proxy statement or on the company's Web site.
   d. All of the above.

5. What item is included in the notes to the financial statements?
   a. The auditor's report.
   b. The management discussion and analysis.
   c. The Form 10-K report.
   d. A summary of the firm's accounting policies.
6. What type of audit report indicates that the financial statements present fairly the financial position, results of operations and the cash flows for the accounting period?
   a. A disclaimer of opinion.
   b. An unqualified report.
   c. A qualified report.
   d. An adverse opinion.

7. Which of the following items would not be discussed in the management discussion and analysis?
   a. Commitments for capital expenditures.
   b. The internal and external sources of liquidity.
   c. The market value of all assets.
   d. A breakdown of sales increases into price and volume components.

8. What organization currently has the legal authority to set accounting policies?
   a. FASB.
   b. IRS.
   c. GAO.
   d. SEC.

9. What is a Form 10-K?
   a. The annual report of a publicly held company which must be filed with the SEC.
   b. The quarterly report of a publicly held company which must be filed with the SEC.
   c. The bankruptcy report of a publicly held company which must be filed with the SEC.
   d. The form required to report a change of auditor.

10. Which of the following statements is false?
    a. The SEC has delegated accounting rule-making to the FASB.
    b. The FASB is comprised of seven full-time, paid members.
    c. The FASB has legal authority to write international accounting standards.
    d. In recent years the SEC and FASB have worked closely together in the development of accounting policy.
11. What is the goal of the International Accounting Standards Committee?
   a. To have worldwide acceptance of a set of international generally accepted accounting principles.
   b. To develop accounting principles to meet the legal and tax needs of countries.
   c. To develop rules for listing securities in any market.
   d. All of the above.

12. Which of the following statements is true?
   a. Corporations must use straight-line depreciation.
   b. Companies with complex capital structures will show two figures for earnings per share: basic and diluted.
   c. A significant change in 1998 eliminates the need for companies to report comprehensive income.
   d. Using two sets of accounting rules—one for reporting purposes and one for tax purposes—is illegal.

13. How are revenues and expenses recognized under the accrual basis of accounting?
   a. Revenues are recognized when cash is received and expenses are recognized when cash is paid.
   b. Revenues and expenses are recognized equally over a twelve month period.
   c. Revenues and expenses are recognized based on the choices of management.
   d. Revenues are recognized in the accounting period when the sale is made and expenses are recognized in the period in which they relate to the sale of the product.

14. Why would management choose to use straight-line depreciation for reporting purposes and MACRS for tax purposes?
   a. This would result in the smallest amount of tax paid and the smoothest earnings stream reported.
   b. This allows the company to avoid paying taxes.
   c. The straight-line depreciation method is more realistic in an environment of rising prices.
   d. Both (a) and (c).
15. Which of the following items is NOT discretionary in nature?
   a. Research and development.
   b. Repairs and maintenance.
   c. Union wages.
   d. Advertising.

16. Which of the following items would be considered a nonrecurring item?
   a. The sale of a major plant asset.
   b. Costs of products sold.
   c. Accounting changes.
   d. Both (a) and (c).

17. Which of the following statements is true?
   a. Assets and liabilities are adjusted for inflation annually.
   b. During a period of inflation, distortions occur in the valuation of assets and the determination of income.
   c. Inflation has had a negative impact on computer firms and a positive impact on automotive firms.
   d. The historical cost principle was abandoned by FASB in 1979.

18. Which of the following would increase earnings but lower the quality of reported earnings?
   a. Taking a loss on obsolete inventory.
   b. Embarking on a capital expansion.
   c. Increasing discretionary expenses.
   d. Decreasing discretionary expenses.

19. What types of information cannot be found in the financial statements?
   a. Reputation of the firm, morale of employees and prestige in the community.
   c. Disclosures about segments of an enterprise.
   d. Disclosures about the fair value of financial instruments.

20. What item is probably the least useful when analyzing financial statements?
   a. Management discussion and analysis.
   b. Public relations materials.
   c. The statement of cash flows.
   d. The notes to the financial statements.
Short Answer

1. List and describe the four basic financial statements included in a corporate annual report.

2. In a speech by Arthur Levitt, chairman of the SEC, he states:
   "Managing may be giving way to manipulation; Integrity may be losing out to illusion."
   Using examples, explain the meaning of this quotation.

3. Discuss the process FASB uses in writing Statements of Financial Accounting Standards.

4. Explain how the timing of the recognition of revenues and expenses can lead to lower quality of reported earnings.

5. Read the auditors' report for Royal Appliance Mfg. Co. What type of opinion was issued by the auditors? Explain why this type of opinion was given.

To the Shareholders and Board of Directors of
Royal Appliance Mfg. Co.

We have audited the Consolidated Financial Statements and the financial statement schedule of Royal Appliance Mfg. Co. and Subsidiaries listed in the index on page 31 of this Form 10-K. These financial statements and the schedule are the responsibility of the Company's management. Our responsibility is to express an opinion on these financial statements and the financial statement schedule based on our audits.

We conducted our audits in accordance with generally accepted auditing standards. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, the financial statements referred to above present fairly, in all material respects, the consolidated financial position of Royal Appliance Mfg. Co. and Subsidiaries as of December 31, 1994 and 1995, and the consolidated results of their operations and their cash flows for each of the three years in the period ended December 31, 1995, in conformity with generally accepted accounting principles. In addition, in our opinion, the financial statement schedule referred to above, when considered in relation to the basic financial statements taken as a whole, presents fairly, in all material respects, the information required to be included therein.

As discussed in footnote 1 to the Consolidated Financial Statements, effective September 1995, the Company changed its method of accounting for domestic inventories from the last-in, first-out (LIFO) method to the first-in, first-out (FIFO) method.

Coopers & Lybrand LLP
Cleveland, Ohio
March 27, 1996
Solutions
Multiple Choice

1.  b  6.  b  11.  a  16.  d
2.  c  7.  c  12.  b  17.  b
3.  a  8.  d  13.  d  18.  d
4.  d  9.  a  14.  a  19.  a
5.  d          10.  c  15.  c  20.  b

Short Answer

1. The balance sheet shows the financial position—assets, liabilities, and stockholders' equity—of the firm on a particular date, such as the end of a quarter or a year.

The income statement presents the results of operations—revenues, expenses, net profit or loss and net profit or loss per share—for the accounting period.

The statement of shareholders' equity reconciles the beginning and ending balances of all accounts that appear in the shareholders' equity section of the balance sheet.

The statement of cash flows provides information about the cash inflows and outflows from operating, investing, and financing activities during an accounting period.

2. Levitt is referring to earnings management, the practice of using accounting choices and techniques in such a way that earnings reports reflect what management wants the user to see, instead of the true financial performance of the firm. Five techniques are commonly used to create illusions according to Levitt. They are "Big Bath" restructuring charges, creative acquisition accounting, cookie jar reserves, misuse of materiality concept and incorrect revenue recognition.

Note: Numerous examples exist which could be used to illustrate the above techniques. See examples in Chapter 1 or the solution to Problem 1.11.

3. The FASB uses a lengthy deliberation process that includes the following steps:
   1. Introduction of topic on the FASB agenda.
   2. Research and analysis of the problem.
3. Issuance of a discussion memorandum.
4. Public hearings.
5. Board analysis and evaluation.
6. Issuance of an exposure draft.
7. Period for public comment.
10. Amendments and interpretations as needed.

4. Generally accepted accounting principles require that expenses be matched with the generation of revenue in order to determine net income for the accounting period. This matching process involves judgments by management regarding the timing of revenue and expense recognition. If management chooses to record revenues or expenses earlier or later than they should be recorded, lower quality of earnings will result. Many examples exist to illustrate this problem.

Xerox Corporation was accused of recognizing revenues prematurely. HBO & Co. went to great lengths to record sales prior to the time when recognition was appropriate in order to show higher profits prior to their acquisition by McKesson, Inc. After the acquisition, when the truth was learned, McKesson HBOC, Inc. had to revise its earnings figures downward by millions of dollars.

5. The opinion is unqualified with explanatory language. The Company is following generally accepted accounting principles and has presented their financial statements fairly, according to the auditors; however explanatory language is necessary to indicate that the Company has changed their method of inventory valuation in 1995. This will cause the statements to be inconsistent and not comparable to prior years.
Chapter 2

Multiple Choice

1. Which item below does not describe a balance sheet?
   a. Assets = Liabilities + Stockholders' Equity.
   b. Financial position at a point in time.
   c. Assets – Liabilities = Stockholders' Equity.
   d. Assets + Liabilities = Stockholders' Equity.

2. Which of the following statements is false?
   a. Annual reports must include three-year audited balance sheets and two-year audited income statements.
   b. The balance sheet is prepared on a particular date.
   c. Interim statements are generally prepared quarterly.
   d. When a parent company owns more than 50% of the voting stock of a subsidiary, the financial statements are consolidated for both entities.

3. What are current assets?
   a. Assets purchased within the last year.
   b. Assets which will be used within the next month.
   c. Assets expected to be converted into cash within one year or operating cycle.
   d. Assets are the net working capital of the firm.

4. Which of the following items could be included in the account "cash and cash equivalents"?
   a. US Treasury bills.
   b. Certificates of deposit.
   c. Commercial paper.
   d. All of the above.

5. How are marketable securities valued on the balance sheet?
   a. Historical cost.
   b. At cost or fair value depending on how the securities are classified.
   c. Market value.
   d. At fair value with the difference between cost and fair value reported as revenue.
6. How are accounts receivable reported on the balance sheet?
   a. At their net realizable value.
   b. At the actual amount less an allowance for doubtful accounts.
   c. At the actual amount plus an allowance for doubtful accounts.
   d. Both (a) and (b).

7. Which of the following circumstances might indicate that management is
manipulating the allowance for doubtful accounts?
   a. A company lowers its credit standards and the allowance account
      increases.
   b. A company tightens its credit standards and the allowance account
      decreases.
   c. A company lowers its credit standards and the allowance account
      decreases.
   d. A company tightens its credit standards and the allowance account
      increases.

8. The inventory of a retail company is comparable to which type of inventory of a
manufacturing company?
   a. Finished goods.
   b. Work in process.
   c. Supplies.
   d. Raw materials.

9. Which type of firm would carry little or no inventory?
   a. A manufacturing firm.
   b. A retail firm.
   c. A service firm.
   d. A wholesale firm.

10. If a company chooses the FIFO method of inventory valuation, which
inventory will appear as ending inventory on the balance sheet?
    a. The first inventory purchased.
    b. The last inventory purchased.
    c. An average of all inventory purchased.
    d. The actual inventory which has not been sold.
11. Why would high technology firms probably choose FIFO as their inventory valuation method?
   a. FIFO is the easiest method to use.
   b. FIFO would cause reported earnings to be higher.
   c. FIFO would cause reported earnings to be lower and allow less to be paid in taxes.
   d. FIFO would ensure that inventory would not become obsolete.

12. Which of the following statements is false?
   a. Reserve accounts should only be setup when the amounts can be determined with 100% certainty.
   b. Reserve accounts can be used to record declines in asset values.
   c. Reserve accounts are set up for the purposes of estimating obligations.
   d. Some firms have used reserve accounts to manipulate earnings.

13. Which of the following accounts would be classified as current assets?
   a. Cash, accounts receivable, accounts payable.
   b. Accounts receivable, inventory, marketable securities.
   c. Accounts receivable, inventory, equipment.
   d. Marketable securities, inventory, goodwill.

14. Which of the following statements is true?
   a. Land, buildings and equipment should be depreciated over the period of time they benefit the firm.
   b. Most companies use accelerated depreciation for financial reporting purposes.
   c. Book value is equal to the original cost of a fixed asset plus any accumulated depreciation to date.
   d. The process of depreciation is a method of allocating the cost of long-lived assets.

15. Which items would be classified as intangible assets?
   a. Unearned revenue, patents, copyrights.
   b. Goodwill, trademarks, franchises.
   c. Land, goodwill, copyrights.
   d. Deferred taxes, prepaid expenses, patents.
16. Which of the following would cause the recognition of a liability?
   a. Credit extended by suppliers.
   b. Receipt of cash in advance for services.
   c. Recognition of expense prior to the actual payment of cash.
   d. All of the above.

17. Which of the following would create a deferred tax liability?
   a. Using an accelerated method of depreciation for tax purposes and the
      straight-line method for reporting purposes in the early years of the life of
      the asset.
   b. The receipt of municipal bond revenue.
   c. The recognition of expenses for postretirement benefits when earned by
      the employees.
   d. Both (a) and (c).

18. Which items would be classified as liabilities?
   a. Accounts payable, additional paid-in capital, pension liabilities.
   b. Common stock, retained earnings, bonds payable.
   c. Commitments and contingencies, obligations under leases, notes payable.
   d. Deferred taxes, accrued expenses, treasury stock.

19. Which statement best describes the retained earnings account?
   a. The retained earnings account is equal to the cash account less dividends
      paid.
   b. Retained earnings are funds a company has chosen to reinvest in the
      operations of a business rather than pay out to stockholders in dividends.
   c. Retained earnings represent unused cash of the firm.
   d. Retained earnings is the measurement of all distributed earnings.

20. Which item would be included in the account "Accumulated other comprehensive income (expense)"?
   a. Treasury stock.
   b. Preferred stock.
   c. Foreign currency translation adjustments.
   d. Additional paid-in capital.
Short Answer

1. Using the following information analyze the accounts receivable and the allowance for doubtful accounts for this company:

<table>
<thead>
<tr>
<th></th>
<th>20X9</th>
<th>20X8</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sales</td>
<td>$8,800</td>
<td>$5,800</td>
</tr>
<tr>
<td>Accounts receivable, net</td>
<td>1,450</td>
<td>1,070</td>
</tr>
<tr>
<td>Allowance for doubtful accounts</td>
<td>22</td>
<td>26</td>
</tr>
</tbody>
</table>

2. 
   a. Explain how inventory is valued if the FIFO method is used.
   b. Explain how inventory is valued if the LIFO method is used.
   c. Why would a manager choose the FIFO method during an inflationary period?
   d. Why would a manager choose the LIFO method during an inflationary period?

3. Brown Co. purchased a piece of equipment last year for $200,000. Management estimates that the equipment will have a useful life of five years and no salvage value. The depreciation expense recorded for tax purposes will be $64,000 this year (Year 2). The company uses the straight-line method of depreciation for reporting purposes.

   a. Calculate the amount of depreciation expense for reporting purposes this year (Year 2).
   b. What will be the net book value of the equipment reported on the balance sheet at the end of this year (Year 2).
   c. Will a deferred tax asset or liability be created as a result of the depreciation recorded for tax and financial reporting purposes?
   d. What amount will be added to the deferred tax account as a result of the depreciation timing difference?

4. Explain why the account titles "Commitments and contingencies" appears on a balance sheet without a corresponding dollar amount.

5. The following list of balance sheet accounts with corresponding amounts is available for Green Co. at the end of the year. Classify the accounts using the following headings: current assets, long-term assets, current liabilities, long-term liabilities, and stockholders' equity. (Hint: You can check your answer using the balance sheet equation.)
<table>
<thead>
<tr>
<th>Account</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accounts payable</td>
<td>29</td>
</tr>
<tr>
<td>Short-term investments</td>
<td>22</td>
</tr>
<tr>
<td>Deferred taxes, current</td>
<td>6</td>
</tr>
<tr>
<td>Property &amp; Equip., net</td>
<td>67</td>
</tr>
<tr>
<td>Accounts receivable</td>
<td>11</td>
</tr>
<tr>
<td>Long-term debt</td>
<td>20</td>
</tr>
<tr>
<td>Current portion of long-term debt</td>
<td>5</td>
</tr>
<tr>
<td>Cash</td>
<td>25</td>
</tr>
<tr>
<td>Common stock</td>
<td>1</td>
</tr>
<tr>
<td>Treasury stock</td>
<td>4</td>
</tr>
<tr>
<td>Prepaid expenses</td>
<td>3</td>
</tr>
<tr>
<td>Inventories</td>
<td>13</td>
</tr>
<tr>
<td>Add'l. paid-in capital</td>
<td>51</td>
</tr>
<tr>
<td>Retained earnings</td>
<td>45</td>
</tr>
</tbody>
</table>
Solutions

Multiple Choice

2. a   7. c   12. a   17. a
3. c   8. a   13. b   18. c
5. b   10. b  15. b   20. c

Short Answer

1.  

<table>
<thead>
<tr>
<th>Allowance for doubtful accts.</th>
<th>20X9</th>
<th>20X8</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accts. Receivable + Allow.</td>
<td>1.5%</td>
<td>2.3%</td>
</tr>
</tbody>
</table>

Growth rates:
- Sales: 52%
- Accts. Receivable: 35%
- Allowance for doubt.: (15%)

Sales for this company have increased significantly so it is expected that the accounts receivable account would grow also. While accounts receivable has grown, it has not grown as much as sales which is a good sign. What is inconsistent, however, is the decline in the allowance for doubtful accounts. Generally this account would increase as both sales and accounts receivable increase. The percentage of estimated bad accounts has dropped by almost a percentage point relative to the prior year. Possible explanations for this inconsistency could be:

1. the company has tightened its credit policy,
2. prior bad debt estimates were too high and the company is correcting for this, or
3. management has intentionally reduced bad debts to report a higher net income.

2. a. The FIFO method assumes the first units purchased are the first units sold during an accounting period; therefore, the ending inventory would consist of the last units purchased during that accounting period.
b. The LIFO method assumes that the items purchased last are the first sold; therefore the ending inventory would consist of the first units purchased.

c. A manager may choose the FIFO method during a period of inflation in order to report higher earnings. Since the first units purchased would be included in cost of goods sold and they would be at lower relative prices, a higher earnings amount will result.

d. A manager may choose the LIFO method during a period of inflation in order to reduce taxes. Since the last units would be reported as cost of goods sold, they would reflect higher costs, thus reducing reported earnings. Lower earnings results in lower taxes and frees more cash for the firm.

3. a. \( \frac{\$200,000}{5 \text{ years}} = \$40,000 \) per year

b. \$200,000 – 40,000 – 40,000 = $120,000

c. Deferred tax liability.

d. $64,000 – 40,000 = $24,000

4. This account is meant to draw the attention to the user that required disclosures can be found in the notes to the financial statements. Commitments refer to contractual agreements which will have a significant impact on the firm in the future. Since the balance sheet does not report future information on the face, the amounts of the future commitments are reported in the notes. Contingencies refer to potential liabilities of the firm. Generally the firm cannot reasonably predict the outcome and/or the amount of the future liability which is why no amount is reported on the balance sheet.

5. Current assets  
   Cash 25  
   Short-term investments 22  
   Accounts receivable 11  
   Inventory 13  
   Prepaid expenses 3  
   Deferred taxes, current 6  
Total current assets 80

   Current liabilities  
   Accounts payable 29  
   Current portion of long-term debt 5  
   Total current liabilities 34  
   Long-term liabilities  
   Long-term debt 20  
   Total liabilities 54
<table>
<thead>
<tr>
<th>Long-term assets</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Property &amp; equipment</td>
<td>67</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Stockholders' equity</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Common stock</td>
<td>1</td>
</tr>
<tr>
<td>Add'l. paid-in capital</td>
<td>51</td>
</tr>
<tr>
<td>Treasury stock</td>
<td>(4)</td>
</tr>
<tr>
<td>Retained earnings</td>
<td>45</td>
</tr>
<tr>
<td>Total stockholders' equity</td>
<td>93</td>
</tr>
</tbody>
</table>

Total assets                        147
Total liabilities and equity         147
Chapter 3

Multiple Choice

1. What can be found on an income statement?
   a. Assets, revenues and expenses.
   b. Revenues, expenses and net profit (loss).
   c. Revenues, expenses, and stockholders' equity.
   d. Assets, liabilities and stockholders' equity.

2. What are the two basic formats of the income statement?
   b. Cash basis and single-step.
   c. Accrual basis and single-step.
   d. Accrual basis and multiple-step.

3. Which items must be disclosed separately on an income statement?
   a. Repairs and Maintenance, operating profit and gross profit.
   b. Gross profit, operating profit and net profit.
   c. Discontinued operations, extraordinary items, and cumulative effects of changes in accounting principles.
   d. Comprehensive income, rent expense and accrued expenses.

4. How should a company report total comprehensive income?
   a. On the face of its income statement.
   b. In a separate statement of comprehensive income.
   c. In its statement of stockholders' equity.
   d. Any of the above ways are acceptable.

5. What could be the cause of an increase in a firm's sales number?
   a. The firm has increased prices.
   b. More units of product have been sold.
   c. Both (a) and (b).
   d. None of the above.
6. What relationship exists between cost of goods sold and gross profit?
   a. Only service companies report both cost of goods sold and gross profit.
   b. Cost of goods sold plus gross profit equals sales.
   c. Cost of goods sold minus gross profit equals operating profit.
   d. Cost of goods sold equals gross profit.

7. Of what value is the calculation of gross profit margin?
   a. The gross profit margin helps the analyst assess the capital structure of the firm.
   b. The gross profit margin allows the analyst to determine if the firm has been affected by inflation.
   c. The gross profit margin indicates the profitability of a firm after considering all operating expenses.
   d. The gross profit margin is the first step of profit measurement indicating how much profit the firm generates after deducting cost of goods sold.

8. Which items below would be classified as operating expenses?
   a. Advertising, selling and administrative, repairs and maintenance.
   b. Interest expense, interest income, rent expense.
   c. Accounts payable, lease payments, depreciation.
   d. Depreciation, capital leases, operating profit.

9. Which of the following statements is true?
   a. Equity earnings is an internal source of cash.
   b. Equity earnings are recorded when investment ownership is over 50%.
   c. Equity earnings may never result in the actual receipt of cash.
   d. None of the above.

10. What three items must be disclosed separately on the income statement, net of income tax effects?
    a. Discontinued operations.
    b. Extraordinary items.
    c. Cumulative effect of accounting changes.
    d. All of the above.
11. How is it possible for a U.S. firm to have an effective tax rate that is less than the U.S. federal statutory tax rate?
   a. Tax rates in foreign countries where the firm operates are higher.
   b. Tax rates in foreign countries where the firm operates are lower.
   c. The firm has expenses that are not deductible for tax purposes.
   d. It is not possible for a firm to have an effective tax rate different from the U.S. federal statutory tax rate.

12. Reduction of what expense account might impair the ongoing success of a pharmaceutical firm?
   a. Research and development.
   b. Advertising.
   c. Cost of goods sold.
   d. Income tax expense.

13. Which profit measure is best for assessing how well a firm operates within their industry?
   a. Gross profit.
   b. Operating profit.
   c. Earnings before taxes.
   d. Net profit.

14. How is a firm's average income tax rate calculated?
   a. Income taxes divided by sales.
   b. Income taxes divided by net income.
   c. Income taxes divided by earnings before income taxes.
   d. Income taxes divided by operating profit.

15. What indicates a complex capital structure in a company?
   a. The existence of highly technical equipment.
   b. Foreign currency translation adjustments.
   c. The existence of convertible securities.
   d. Comprehensive income.
16. How does diluted earnings per share differ from basic earnings per share?
   a. Diluted earnings per share considers the effect on earnings per share if convertible securities were converted into common stock.
   b. Diluted earnings per share uses operating profit in the numerator while basic earnings per share uses net profit.
   c. Diluted earnings per share is always larger than basic earnings per share.
   d. Diluted earnings per share uses actual common stock outstanding at the end of year while basic earnings per share uses the average number of shares outstanding throughout the year.

17. What information can be found on a statement of shareholders' equity?
   a. The amount of cash dividends paid, if any.
   b. The amount of net profit (loss) generated.
   c. Assets = Liabilities + Shareholders' equity.
   d. Both (a) and (b).

18. What effect would a 2 for 1 stock split have?
   a. The number of shares outstanding would drop in half.
   b. The shareholders ownership percentage would double.
   c. The stock price will probably drop by half and the number of shares of stock outstanding will double.
   d. The stock price will double and the number of shares of stock outstanding will drop by half.

Use the following information for Gray Co. to answer questions 19 and 20.

<table>
<thead>
<tr>
<th></th>
<th>20X9</th>
<th>20X8</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sales</td>
<td>400</td>
<td>400</td>
</tr>
<tr>
<td>COGS</td>
<td>250</td>
<td>200</td>
</tr>
<tr>
<td>Operating expenses</td>
<td>80</td>
<td>70</td>
</tr>
<tr>
<td>Income taxes</td>
<td>22</td>
<td>40</td>
</tr>
</tbody>
</table>

19. Gray Co.’s gross profit, operating profit and net profit margins for 20X9 are:
   a. 50.0%, 32.5%, 22.5% respectively.
   b. 37.5%, 17.5%, 12.0%, respectively.
   c. 62.5%, 50.0%, 22.5%, respectively.
   d. 62.5%, 17.5%, 12.0%, respectively.
20. Gray Co.'s average tax rates for 20X9 and 20X8 are:
   a. 5.5% and 10.0%
   b. 27.5% and 57.1%
   c. 45.8% and 44.4%.
   d. 31.4% and 30.8%.
Short Answer

1. Discuss the usefulness of the multiple-step income statement to an analyst. Be sure to explain the differences between the intermediate profit measures.

2. List and describe the three special items which must be disclosed separately on an income statement.

3. Discuss the importance of analyzing operating expense categories such as repairs and maintenance, advertising, and research and development.

4. a. Explain the possible reasons for gross profit margin to increase.

   b. Explain the possible reasons for net profit margin to decrease if operating profit margin is stable.

5. Use the following information to analyze the BJ Company. Calculate any profit measures deemed necessary in order to discuss the profitability of the company.

   **BJ Company**
   **Income Statements**
   **For the Years Ended Dec. 31, 20X9 and 20X8**

<table>
<thead>
<tr>
<th></th>
<th>20X9</th>
<th>20X8</th>
</tr>
</thead>
<tbody>
<tr>
<td>Net sales</td>
<td>$174,000</td>
<td>$167,000</td>
</tr>
<tr>
<td>COGS</td>
<td>114,000</td>
<td>115,000</td>
</tr>
<tr>
<td>Gross profit</td>
<td>60,000</td>
<td>52,000</td>
</tr>
<tr>
<td>general and administrative expenses</td>
<td>54,000</td>
<td>46,000</td>
</tr>
<tr>
<td>Operating profit</td>
<td>6,000</td>
<td>6,000</td>
</tr>
<tr>
<td>Interest expense</td>
<td>(1,000)</td>
<td>(1,000)</td>
</tr>
<tr>
<td>Earnings before taxes</td>
<td>5,000</td>
<td>5,000</td>
</tr>
<tr>
<td>Income taxes</td>
<td>2,000</td>
<td>2,000</td>
</tr>
<tr>
<td>Net income</td>
<td>3,000</td>
<td>3,000</td>
</tr>
</tbody>
</table>
Solutions

Multiple Choice

1. b  6. b  11. b  16. a
2. a  7. d  12. a  17. d
3. c  8. a  13. b  18. c
4. d  9. c  14. c  19. b
5. c  10. d  15. c  20. d

Short Answer

1. The multiple-step income statement classifies revenues and expenses in such a way as to easily assess the profitability of a firm. Four intermediate profit measures are included on the income statement: gross profit, operating profit, earnings before income taxes and net profit. Gross profit indicates how much profit the firm is generating after deducting the cost of products sold. Operating profit measures the overall performance of the company's operations apart from its financing and investing activities and separate from tax considerations. Earnings before income taxes is the profit prior to the deduction of income tax expense. Net profit is the firm's profit after consideration of all revenue and expense reported during the accounting period.

2. Discontinued operations occur when a firm sells a major portion of its business. The results of continuing operations are shown separately from the operating results of the discontinued operations. Any gain or loss on the disposal is also disclosed separately.

   Extraordinary gains and losses are both unusual in nature and not expected to recur in the foreseeable future.

   The cumulative effect of a change in accounting principle must be disclosed separately when a firm changes an accounting policy.

3. Management exercises discretion over these operating expenses. Spending too little or too much in these areas can impact the firm negatively. In capital intensive industries it is important for management to properly maintain plant and equipment. Expenditures in this area should correspond to the level of investment in capital equipment and to the age and condition of the assets. Poorly maintained equipment will result in waste and lost time. Advertising is
critical for certain types of industries. For example, firms operating in the beverage industry generally gain market share through extensive advertising. High-technology and pharmaceutical firms would cease to exist if they did not spend a certain amount on research and development. These industries depend on developing new products each year.

4.  
   a. Selling prices could be increasing or the cost to produce goods could be decreasing.
   
   b. Interest and income tax expenses could be higher. Interest income could be lower. The firm may have experienced losses from the sale of assets or discontinued operations, extraordinary losses or reductions due to the cumulative effect of an accounting change.

5.  

<table>
<thead>
<tr>
<th></th>
<th>20X9</th>
<th>20X8</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cost of goods sold percentage</td>
<td>65.5%</td>
<td>68.9%</td>
</tr>
<tr>
<td>Gross profit margin</td>
<td>34.5%</td>
<td>31.1%</td>
</tr>
<tr>
<td>G&amp;A/Net sales</td>
<td>31.0%</td>
<td>27.5%</td>
</tr>
<tr>
<td>Operating profit margin</td>
<td>3.4%</td>
<td>3.6%</td>
</tr>
<tr>
<td>Effective tax rate</td>
<td>40.0%</td>
<td>40.0%</td>
</tr>
<tr>
<td>Net profit margin</td>
<td>1.7%</td>
<td>1.8%</td>
</tr>
</tbody>
</table>

Management has improved control of COGS. Either prices of the products have been increased or the management has been able to reduce cost of goods sold. This has resulted in a more favorable gross profit. Unfortunately general and administrative expenses have not been controlled well. While gross profit improved by 3.4%, the increases in other operating expenses totaled 3.5%, resulting in a drop in operating profit margin. Taxes and interest remained unchanged. Management should focus on reducing the other operating expenses in the future.
Chapter 4

Multiple Choice

1. Why is the statement of cash flows useful to the analyst?
   a. It is the only source in financial statements for learning about cash generation.
   b. Focusing on net income can be misleading if a company has a healthy profit, but cannot translate the profit into cash.
   c. The statement of cash flows reveals why a company was able to generate a profit.
   d. Both (a) and (b).

2. The following items would be classified as operating activities on the statement of cash flows:
   a. Acquisitions of equipment, payment of dividends, revenue.
   b. Payments for inventory, payments for salaries, cash received from sale of goods.
   c. Proceeds from borrowing, payments of dividends, purchases of supplies.
   d. Payments on loans, payments for taxes, payments for rent.

3. The following items would be classified as investing activities on the statement of cash flows:
   a. Sale of property, purchase of equity securities, loans to others.
   b. Sale of goods, receipt of dividends, repurchase of firm's own stock.
   c. Proceeds from borrowing, payment of dividends, receipt of dividends.
   d. Payment to lenders, proceeds from issuing common stock, revenue.

4. The following items would be classified as financing activities on the statement of cash flows:
   a. Payments for inventory, payments to lenders, payments for taxes.
   b. Loans to others, returns from loans to others, acquisition of land.
   c. Proceeds from borrowing, payment of dividends, repayment of debt.
   d. Sales of goods, repayment of debt, loans to others.
5. What type of accounts are accounts receivable and accounts payable?
   a. Cash accounts.
   b. Operating accounts.
   c. Financing accounts.
   d. Investing accounts.

6. What is implied if the accounts receivable account has increased?
   a. Cash flow from operating activities is greater relative to net income.
   b. Cash flow from operating activities is less relative to net income.
   c. The firm's sales have increased relative to the prior year.
   d. None of the above.

7. What impact does depreciation have on the cash account?
   a. Depreciation results in an increase to cash.
   b. Depreciation results in a decrease to cash.
   c. Depreciation has no impact on the cash account.
   d. Depreciation only impacts the cash account if inflation has occurred.

8. Which of the following items are included in the adjustments to net income to obtain cash flow from operating activities?
   a. Payment of dividends and depreciation expense.
   b. The change in accounts receivable and the acquisition of land.
   c. The gain from an asset sale and the payment of dividends.
   d. The change in inventory and depreciation expense.

9. How would you know if a statement of cash flows had been prepared using the direct or the indirect method?
   a. The indirect method begins with net income and adds and subtracts adjustments to obtain cash flow from operating activities.
   b. The direct method adjusts for deferrals and accruals.
   c. Depreciation will be subtracted from net income.
   d. The direct method starts with cash flow from operating activities and adds and subtracts adjustments to obtain net income.

10. If net cash provided or used by operating, financing and investing activities are added together, the result is:
    b. The change in cash.
    c. Cash outflow.
    d. Cash inflow.
11. Which item may be of concern when analyzing cash flow from operating activities?
   a. Increasing inventories.
   b. Decreasing accounts receivable.
   c. Repayment of debt.
   d. Payments of dividends.

12. Which of the following could be indicative of cash flow problems or a result of an expansion?
   a. Increasing accounts receivable and decreasing inventories.
   b. Increasing accounts receivable and increasing inventories.
   c. Decreasing accounts receivable and increasing inventories.
   d. Decreasing accounts receivable and decreasing inventories.

Questions 13-16 are based on the indirect method of presenting cash flow from operating activities. Indicate whether the following items will be added (A) or subtracted (S) from net income to obtain cash flow from operating activities.

13. An increase in accounts payable.
   A

   S

15. A gain from an asset sale.
   A

   S

Use the indirect method to answer questions 17-20. The following information is available for Casey Company:

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Net income</td>
<td>$200</td>
</tr>
<tr>
<td>Depreciation expense</td>
<td>50</td>
</tr>
<tr>
<td>Increase in accts. receiv.</td>
<td>30</td>
</tr>
<tr>
<td>Decrease in inventories</td>
<td>10</td>
</tr>
<tr>
<td>Increase in plant and equip.</td>
<td></td>
</tr>
<tr>
<td>Payment of dividends</td>
<td>25</td>
</tr>
<tr>
<td>Increase in long-term debt</td>
<td>100</td>
</tr>
<tr>
<td>Decrease in accounts payable</td>
<td>20</td>
</tr>
</tbody>
</table>

17. What is cash flow from operating activities for Casey Company?
   a. $195
   b. $310
   c. $210
   d. $290
18. What is cash from investing activities for Casey Company?
   a. ($215)
   b. $215
   c. ($90)
   d. $90

19. What is cash from financing activities for Casey Company?
   a. $75
   b. $125
   c. ($125)
   d. $55

20. What is the change in cash for Casey Company?
   a. $85
   b. $375
   c. $125
   d. $195
Short Answer

1. Discuss the importance of the statement of cash flows as an analytical tool for users of financial statements.

2. Explain the meaning of the three categories of a statement of cash flows: operating, investing and financing activities. Give an example of an inflow and an outflow for each category.

The following information for Blue Co. is to be used for questions 3 and 4.

Blue Co.
Balance Sheet
December 31, 20X9 and 20X8

<table>
<thead>
<tr>
<th></th>
<th>20X9</th>
<th>20X8</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cash</td>
<td>$220</td>
<td>$110</td>
</tr>
<tr>
<td>A/R</td>
<td>45</td>
<td>60</td>
</tr>
<tr>
<td>Inventory</td>
<td>110</td>
<td>90</td>
</tr>
<tr>
<td>Total current assets</td>
<td>$375</td>
<td>$260</td>
</tr>
<tr>
<td>Property, plant &amp; equipment</td>
<td>140</td>
<td>140</td>
</tr>
<tr>
<td>Less: Accumulated depreciation</td>
<td>40</td>
<td>25</td>
</tr>
<tr>
<td>Property, plant &amp; equipment, net</td>
<td>$100</td>
<td>$115</td>
</tr>
<tr>
<td>Total assets</td>
<td>$475</td>
<td>$375</td>
</tr>
<tr>
<td>A/P</td>
<td>$ 40</td>
<td>$ 30</td>
</tr>
<tr>
<td>Accrued expenses</td>
<td>10</td>
<td>15</td>
</tr>
<tr>
<td>Total current liabilities</td>
<td>$ 50</td>
<td>$ 45</td>
</tr>
<tr>
<td>Stockholders' equity:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Common stock</td>
<td>200</td>
<td>200</td>
</tr>
<tr>
<td>Retained earnings</td>
<td>225</td>
<td>130</td>
</tr>
<tr>
<td>Total liabilities and stockholders' equity</td>
<td>$475</td>
<td>$375</td>
</tr>
</tbody>
</table>

Blue Co.
Income Statement
For the Year Ended 20X9

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Sales</td>
<td>$600</td>
</tr>
<tr>
<td>COGS</td>
<td>240</td>
</tr>
<tr>
<td>Gross profit</td>
<td>$360</td>
</tr>
</tbody>
</table>
Operating and other expenses 265
Net income $95

3. Compute cash flow from operating activities using the indirect method.

4. Explain how it is possible for a firm with a positive net profit to generate negative cash flow from operating activities.

5. Analyze the statement of cash flows for Candy Corporation.

Candy Corporation
Statement of Cash Flows
For the Years Ended December 31, 20X9 and 20X8

<table>
<thead>
<tr>
<th>20X9</th>
<th>20X8</th>
</tr>
</thead>
<tbody>
<tr>
<td>Net income</td>
<td>$1200</td>
</tr>
<tr>
<td></td>
<td>($1500)</td>
</tr>
<tr>
<td>Adjustments to reconcile net income to net cash provided by (used for) operating activities:</td>
<td></td>
</tr>
<tr>
<td>Depreciation</td>
<td>550</td>
</tr>
<tr>
<td></td>
<td>660</td>
</tr>
<tr>
<td>Changes in assets and liabilities:</td>
<td></td>
</tr>
<tr>
<td>Accounts receivable</td>
<td>(1500)</td>
</tr>
<tr>
<td>Inventory</td>
<td>(220)</td>
</tr>
<tr>
<td>Accounts payable</td>
<td>1300</td>
</tr>
<tr>
<td>Accrued expenses</td>
<td>(20)</td>
</tr>
<tr>
<td></td>
<td>(330)</td>
</tr>
<tr>
<td>Net cash provided by (used for) operating activities</td>
<td>$1310</td>
</tr>
<tr>
<td></td>
<td>($1590)</td>
</tr>
<tr>
<td>Cash flows from investing activities:</td>
<td></td>
</tr>
<tr>
<td>Additions to property, plant &amp; equipment</td>
<td>(440)</td>
</tr>
<tr>
<td></td>
<td>(300)</td>
</tr>
<tr>
<td>Cash flows from financing activities:</td>
<td></td>
</tr>
<tr>
<td>Proceeds from long-term debt</td>
<td>500</td>
</tr>
<tr>
<td>Repayments of long-term debt</td>
<td>(400)</td>
</tr>
<tr>
<td>Payment of cash dividends</td>
<td>(25)</td>
</tr>
<tr>
<td></td>
<td>(45)</td>
</tr>
<tr>
<td>Net cash provided by financing activities</td>
<td>75</td>
</tr>
<tr>
<td></td>
<td>655</td>
</tr>
<tr>
<td>Net increase (decrease) in cash</td>
<td>$945</td>
</tr>
<tr>
<td></td>
<td>($1235)</td>
</tr>
<tr>
<td>Cash at beginning of period</td>
<td>1765</td>
</tr>
<tr>
<td></td>
<td>3000</td>
</tr>
<tr>
<td>Cash at end of period</td>
<td>$2710</td>
</tr>
<tr>
<td></td>
<td>$1765</td>
</tr>
</tbody>
</table>
Solutions

Multiple Choice

1. d.  6. b  11. a  16. S
2. b  7. c  12. b  17. c
3. a  8. d  13. A  18. c
5. b  10. b  15. S  20. d

Short Answer

1. The statement of cash flows is the only financial statement where information on cash inflows and cash outflows can be found. Cash is important to any business since it is the means by which companies pay their bills and service their debt. While companies may post healthy net income numbers, this is not a guarantee that those profits can be translated into cash. The statement of cash flows helps users of financial statements determine the ability of the firm to generate future cash flows, the firm's capacity to meet obligations, the firm's potential external financing needs, and the firm's success in managing investing activities.

2. Operating activities include delivering and producing goods for sale and providing services and the cash effects of transactions and other events that enter into the determination of income. Examples of cash inflows from operating activities would include: sales of goods, revenue from services, returns on interest earning assets and returns on equity securities. Examples of cash outflows from operating activities would include payments for purchases of inventories, supplies, operating expenses, interest and taxes.

Investing activities include acquiring and selling, or otherwise disposing of (a) securities that are not cash equivalents and (b) productive assets that are expected to benefit the firm for long periods of time; and lending money and collecting loans. Examples of cash inflows from investing activities would include sales of long-lived assets, sales of securities and returns from loans to others. Examples of cash outflows from investing activities would include acquisitions of long-lived assets, purchases of securities and loans to others.

Financing activities include borrowing from creditors and repaying principal as well as obtaining resources from owners and providing them with a return on
the investment. Examples of cash flows from financing activities would include proceeds from borrowing or issuing the firm's own equity securities. Examples of cash outflows from financing activities would include repayment of debt principal, repurchase of a firm's own stock and payment of dividends.

3. Net income $95
   Adjustments:
   Depreciation 15
   Changes in assets/liabilities:
   A/R 15
   Inventory (20)
   A/P 10
   Accrued expenses (5)
   Cash flow from operating activities $110

4. Net profit is a number derived from accrual-based accounting, therefore, it is possible for the firm to record revenues not yet received in cash and pay for expenses recorded in a prior period or that will be recorded as an expense in a later period. Increases in current asset accounts and decreases in current liability accounts are deducted from net profit when calculating cash flow from operating activities.

5.  
<table>
<thead>
<tr>
<th></th>
<th>20X9</th>
<th>20X8</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inflows:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cash from operations</td>
<td>1310</td>
<td>72.4%</td>
</tr>
<tr>
<td>Proceeds from debt</td>
<td>500</td>
<td>27.6%</td>
</tr>
<tr>
<td>Total</td>
<td>1810</td>
<td>100%</td>
</tr>
<tr>
<td>Outflows:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cash from operations</td>
<td>----</td>
<td>1590</td>
</tr>
<tr>
<td>Additions to PPE</td>
<td>440</td>
<td>50.9%</td>
</tr>
<tr>
<td>Repayments of debt</td>
<td>400</td>
<td>46.2</td>
</tr>
<tr>
<td>Payments of dividends</td>
<td>25</td>
<td>2.9</td>
</tr>
<tr>
<td>Total</td>
<td>865</td>
<td>100%</td>
</tr>
</tbody>
</table>

Candy Corp. was unable to generate cash from operations in 20X8. This was caused by the loss in that year as well as a large payment on accounts payable. Cash from operations improved in 20X9 due to the generation of profit and the use of accounts payable to finance the increase in accounts receivable. Debt has been used to acquire any additional cash needed and has been used to purchase capital assets, repay debt and pay a minimal amount of dividends. It
will be important for Candy Corp. to maintain the ability to generate cash from operations and effectively manage the working capital of the firm.
Chapter 5

Multiple Choice

1. Which of the following items is NOT a source of information from the corporate annual report?
   a. Auditor's report.
   b. Supplementary schedule of segment information.
   c. Value Line Investment Survey.
   d. Management's discussion and analysis.

2. Which of the following tools and techniques are the most useful to the financial statement analyst?
   a. Public relations material and pro forma statements prepared by the firm.
   b. Common size financial statements and financial ratios.
   c. The letter to the shareholders and a map.
   d. None of the above.

3. What type of ratios measure the liquidity of specific assets and the efficiency of managing assets?
   a. Liquidity ratios.
   b. Activity ratios.
   c. Leverage ratios.
   d. Profitability ratios.

4. Which of the following statements is false?
   a. Financial ratios are predictive.
   b. Financial ratios can serve as screening devices.
   c. Financial ratios can indicate areas of potential strength and weakness.
   d. No rules of thumb apply to the interpretation of financial ratios.

5. Which of the following ratios would be useful in assessing short-term liquidity?
   a. Current ratio, inventory turnover, fixed asset turnover.
   b. Quick ratio, accounts receivable turnover, return on assets.
   c. Average collection period, debt ratio, return on assets.
   d. Current ratio, quick ratio, cash-flow liquidity ratio.
6. What does a decreasing inventory turnover ratio usually indicate about a firm?
   a. The firm is selling more inventory.
   b. The firm is managing its inventory well.
   c. The firm is inefficient in the management of inventory.
   d. Both (a) and (b).

7. What relationship exists between the average collection period and accounts receivable turnover?
   a. There is a direct and proportional relationship.
   b. As average collection period increases (decreases) the accounts receivable turnover decreases (increases).
   c. Both ratios are expressed in number of days.
   d. Both ratios are expressed in number of times receivables are collected per year.

8. Why is it important to calculate cash flow ratios?
   a. Firms need cash to service debt, dividends and expenses.
   b. Companies that generate healthy profit may be unable to convert profits into cash.
   c. Cash flow ratios help the analyst assess the long-term profitability of a firm.
   d. Both (a) and (b).

9. What is the net trade cycle?
   a. The amount of time needed to complete the normal operating cycle of a firm.
   b. The amount of time it takes to manufacture or buy inventory.
   c. The amount of time it takes to sell inventory.
   d. None of the above.

10. If a firm is using financial leverage successfully what would be the impact of doubling operating earnings?
    a. The return on equity will double.
    b. The return on equity will increase, but not double.
    c. The return on equity will more than double.
    d. The return on equity will decline by half.
Use the following data to answer questions 11-15.

Lazy O Corporation
Selected Financial Data
December 31, 20X9

<table>
<thead>
<tr>
<th>Current assets</th>
<th>$65,000</th>
</tr>
</thead>
<tbody>
<tr>
<td>Current liabilities</td>
<td>60,000</td>
</tr>
<tr>
<td>Accounts receivable</td>
<td>15,000</td>
</tr>
<tr>
<td>Inventories</td>
<td>20,000</td>
</tr>
<tr>
<td>Accounts payable</td>
<td>40,000</td>
</tr>
<tr>
<td>Net sales</td>
<td>365,000</td>
</tr>
<tr>
<td>Cost of goods sold</td>
<td>280,000</td>
</tr>
</tbody>
</table>

11. Lazy O's current ratio is:
   a. 2.1 to 1
   b. 0.1 to 1
   c. 0.9 to 1
   d. 1.1 to 1

12. Lazy O's quick ratio is:
   a. 0.87 to 1
   b. 0.75 to 1
   c. 1.1 to 1
   d. 0.9 to 1

13. Lazy O's average collection period is:
   a. 15 days
   b. 24 days
   c. 9 days
   d. 4 days

14. Lazy O's inventory turnover is:
   a. 7 times
   b. 9 times
   c. 14 times
   d. 18 times
15. Lazy O's net trade cycle is:
   a. 5 days
   b. (11 days)
   c. 35 days
   d. 20 days

Use the following data to answer questions 16-20.

Happy Valley Co.
Selected Financial Data
December 31, 20X9

- Net sales $200,000
- Cost of goods sold 90,000
- Operating expenses 80,000
- Net income 10,000
- Total assets 180,000
- Total liabilities 120,000
- Cash flow from operating activities 5,000

16. Happy Valley's debt ratio is:
   a. 8%
   b. 60%
   c. 67%
   d. 150%

17. Happy Valley's cash flow margin is:
   a. 2.5%
   b. 2.8%
   c. 6.3%
   d. 50.0%

18. Happy Valley's operating profit margin is:
   a. 5%
   b. 15%
   c. 40%
   d. 55%
19. Happy Valley's return on equity is:
   a.  5%
   b.  8%
   c.  17%
   d.  33%

20. Happy Valley's net profit margin is:
   a.  2.5%
   b.  5.5%
   c.  2.7%
   d.  5.0%
Short Answer

1. a. What is the objective of financial statement analysis from the standpoint of a creditor?

   b. What sources of information are available to creditors when analyzing a firm?

2. Describe the steps of conducting a financial statement analysis.

3. List and describe the ratios which should be assessed when looking at the short-term liquidity of a firm.

4. Explain why shareholder returns are magnified when financial leverage is used and operating earnings rise or fall.

5. Explain how the Du Pont System can help the analyst.
Solutions

Multiple Choice

1. c  6. c  11. d  16. c
2. b  7. b  12. b  17. a
3. b  8. d  13. a  18. b
4. a  9. a  14. c  19. c
5. d  10. c  15. b  20. d

Short Answer

1. a. The creditor is ultimately concerned with the ability of an existing or prospective borrower to make interest and principal payments on borrowed funds. Information the creditor would like to know is:

   1. What is the borrowing cause?
   2. What is the firm's capital structure?
   c. What will be the source of debt repayment?

b. Sources of information for the creditor include information in the corporate annual report: the auditor's report, management's discussion and analysis, and supplementary schedules. Other sources would include references revealing comparative statistical ratios, and credit ratings from sources such as Moody's. In addition the creditor could learn more about the company by reading about the firm in business periodicals.

2. Steps of a financial statement analysis should include:

   a. Establish the objectives of the analysis.
   b. Study the industry in which the firm operates and relate industry climate to current and projected economic developments.
   c. Develop knowledge of the firm and quality of management.
   d. Evaluate the financial statements by preparing common size financial statements, calculating key financial ratios and comparing to industry competitors. Major areas to consider are short-term liquidity, capital structure and long-term solvency, operating efficiency and profitability, market measures and segment information.
   e. Summarize the findings based on the analysis and reach conclusions relevant to the established objectives.
3. The following ratios are useful in assessing the short-term liquidity of the firm:

a. Current ratio – measures the ability of the firm to meet needs for cash as they arise.

b. Quick ratio – measures short-term liquidity more rigorously than the current ratio by eliminating inventory, usually the least liquid current asset.

c. Cash flow liquidity ratio – measures short-term liquidity by considering cash resources of cash and cash equivalents (marketable securities) plus cash from operations.

d. Average collection period – indicates the days required to convert receivables to cash.

e. Accounts receivable turnover – indicates how many times per year receivables are collected.

f. Inventory turnover – measures the efficiency of the firm in managing and selling inventory.

g. Net trade cycle – measures the number of days it takes to buy or manufacture inventory, sell inventory, and collect the cash from the sale.

4. Financial leverage refers to the use of debt in a company's capital structure. Shareholder returns are magnified, positively or negatively, when operating earnings rise or fall. This is caused by the fact that interest expense is fixed regardless of operating earnings. When earnings rise, interest expense does not change and the additional funds are available to the shareholder. If earnings decline, the interest expense will remain, leaving much less for the shareholders.
5. The Du Pont System allows the analyst to consider the interrelationships between ratios. The firm's decisions and activities over the course of an accounting period interact to produce an overall return to the firm's shareholders, the return on equity. The summary ratios used are the following:

<table>
<thead>
<tr>
<th>(1) Net Profit Margin</th>
<th>X</th>
<th>(2) Total Asset Turnover</th>
<th>=</th>
<th>(3) Return on Investment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Net income</td>
<td>X</td>
<td>Sales</td>
<td>=</td>
<td>Net income</td>
</tr>
<tr>
<td>Sales</td>
<td></td>
<td>Assets</td>
<td></td>
<td>Assets</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>(3) Return on Investment</th>
<th>X</th>
<th>(4) Financial Leverage</th>
<th>=</th>
<th>(5) Return on Equity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Net income</td>
<td>X</td>
<td>Assets</td>
<td>=</td>
<td>Net income</td>
</tr>
<tr>
<td>Assets</td>
<td></td>
<td>Equity</td>
<td></td>
<td>Equity</td>
</tr>
</tbody>
</table>

By reviewing this series of relationships, the analyst can identify strengths and weaknesses as well as trace potential causes of any problems in the overall financial condition and performance of the firm.

The first three ratios reveal that the (3) return on investment (profit generated from the overall investment in assets) is a product of the (1) net profit margin (profit generated from sales) and the (2) total asset turnover (the firm's ability to produce sales from its assets). Extending the analysis, the remaining three ratios show how the (5) return on equity (overall return to shareholders, the firm's owners) is derived from the product of (3) return on investment and (4) financial leverage (proportion of debt in the capital structure). Using this system, the analyst can evaluate changes in the firm's condition and performance, whether they are indicative of improvement or deterioration or some combination. The evaluation can then focus on specific areas contributing to the changes.