

## **Chapter 01**

### **Interpreting Financial Statements**

#### **Multiple Choice Questions**

1. Which of the following statements concerning the cash flow production cycle is true?
  - A. The profits reported in a given time period equal the cash flows generated.
  - B. A company's operations and finances are independent of each other.
  - C. Financial statements have nothing to do with reality.
  - D. The movement of cash to inventory, to accounts receivable, and back to cash is known as the firm's working capital cycle.
  - E. A profitable company will always have sufficient cash to meet its obligations.
  
2. Which of the following statements concerning a firm's cash flows and profits is false?
  - A. Managers must be at least as concerned with cash flows as with profits.
  - B. A company that sells merchandise at a profit will generate cash soon enough to replenish cash flows required for continued production.
  - C. The cash flows generated in a given time period can differ from the profits reported.
  - D. Profits are no assurance that cash flow will be sufficient to maintain solvency.
  - E. Due to required cash investments in current assets, fast-growing and profitable companies can literally "grow broke".
  
3. Which one of the following is the financial statement that shows a financial snapshot, taken at a point in time, of all the assets the company owns and all the claims against those assets?
  - A. income statement
  - B. creditor's statement
  - C. balance sheet
  - D. cash flow statement
  - E. sources and uses statement

4. Which one of the following is the financial statement that summarizes a firm's revenue and expenses over a period of time?

- A. income statement
- B. balance sheet
- C. cash flow statement
- D. sources and uses statement
- E. market value statement

5. Which one of the following is the financial statement that summarizes changes in the company's cash balance over a period of time?

- A. income statement
- B. balance sheet
- C. cash flow statement
- D. shareholders' equity statement
- E. market value statement

6. The sources and uses of cash over a stated period of time are reflected on the:

- A. income statement.
- B. balance sheet.
- C. shareholders' equity statement.
- D. cash flow statement.
- E. statement of operating position.

7. Which one of the following is a source of cash?

- A. increase in accounts receivable
- B. decrease in notes payable
- C. decrease in common stock
- D. increase in inventory
- E. increase in accounts payable

8. Which one of the following is a use of cash?

- A. increase in notes payable
- B. increase in inventory
- C. increase in long-term debt
- D. decrease in accounts receivable
- E. increase in common stock

9. Which one of the following is a source of cash?

- A. decrease in accounts receivable
- B. decrease in common stock
- C. decrease in long-term debt
- D. decrease in accounts payable
- E. increase in inventory

10. Noncash items refer to:

- A. sales which are made on a credit basis.
- B. inventory items purchased using credit.
- C. intangible assets such as patents.
- D. expenses, like depreciation, which do not directly affect cash flows.
- E. administrative expenses.

11. Which of the following tends to cause differences between market values and book values?

- I. Accounting often creates a dichotomy between realized and unrealized income.
  - II. Accountants allocate goodwill when a firm is acquired for more than book value.
  - III. Many accounting values are transactions-based and hence backward-looking.
  - IV. The use of fair-value accounting.
  - V. Accountants refuse to assign a cost to equity capital.
- A. I and II only
  - B. I and III only
  - C. II and IV only
  - D. I, III, and IV only
  - E. I, III, and V only
  - F. I, III, IV, and V only

12. The book value of a firm is:

- A. equivalent to the firm's market value provided that the firm has some fixed assets.
- B. based on historical cost.
- C. generally greater than the market value when fixed assets are included.
- D. more of a financial than an accounting valuation.
- E. adjusted to the market value whenever the market value exceeds the stated book value.

13. Depreciation expense:

- A. reduces both taxes and net income.
- B. increases the net fixed assets as shown on the balance sheet.
- C. reduces both the net fixed assets and the costs of a firm.
- D. is a noncash item that increases net income.
- E. decreases current assets, net income, and operating cash flows.

Selected information about South, Inc., a restaurant chain, follows.

(\$ in millions)	2010	2011
Net Sales	\$296	\$364
Cost of goods sold	168	223
Depreciation	51	61
Net income	32	45
Finished goods inventory	34	29
Accounts receivable	47	87
Accounts payable	39	44
Net fixed assets	404	482
Year-end cash balance	\$186	\$123

14. During 2011, how much cash (in \$ millions) did South collect from sales?

- A. 364
- B. 277
- C. 404
- D. 324
- E. 451
- F. None of the above.

15. During 2011, what was the cost of goods (in \$ millions) produced by the company?

- A. 223
- B. 194
- C. 252
- D. 228
- E. 218
- F. None of the above.

16. Assuming the company neither sold nor salvaged any assets during the year, what were the company's capital expenditures during 2011?

- A. 482
- B. 78
- C. 421
- D. 61
- E. 139
- F. None of the above.

17. Assuming that there were no financing cash flows during 2011 and basing your answer solely on the information provided, what were the cash flows from operations (in \$ millions) for 2011?

- A. 45
- B. 106
- C. 15
- D. 76
- E. 31
- F. None of the above.

18. JM Case Inc. has a market value of \$5 million with 500,000 shares outstanding. The book value of its equity is \$1,750,000. What is JM Case's price per share?

- A. \$3.50
- B. \$5
- C. \$10
- D. \$25
- E. \$50
- F. None of the above.

19. JM Case Inc. has a market value of \$5 million with 500,000 shares outstanding. The book value of its equity is \$1,750,000. What is JM Case's book value per share?

- A. \$3.50
- B. \$5
- C. \$10
- D. \$25
- E. \$50
- F. None of the above.

20. JM Case Inc. has a market value of \$5 million with 500,000 shares outstanding. The book value of its equity is \$1,750,000. If the company repurchases 20 percent of its shares in the stock market, what will be the book value of equity if all else remains the same?

- A. \$750,000
- B. \$1,250,000
- C. \$1,000,000
- D. \$1,400,000
- E. \$4,000,000
- F. None of the above.

21. JM Case Inc. has a market value of \$5 million with 500,000 shares outstanding. The book value of its equity is \$1,750,000. If the company repurchases 20 percent of its shares in the stock market and there are no taxes or transactions costs and all else remains the same, what should the market value of the firm be after the repurchase?

- A. \$1,000,000
- B. \$1,750,000
- C. \$3,250,000
- D. \$4,000,000
- E. \$5,000,000
- F. None of the above.

**Short Answer Questions**

22. The book value of Little Statistic's total assets is \$400,000. Suppose Number Crunching Inc. acquires Little Statistic's assets for \$1 million and finances the purchase by selling \$600,000 in new stock, \$300,000 in new debt, and reducing cash by \$100,000. Describe how the acquisition affects Number Crunching's balance sheet.

23. Playdough Products earned net income of \$400,000 in 2011. The firm increased its accounts receivable during the year by \$250,000. The book value of its assets declined by the year's depreciation charge, which was \$180,000, and the market value of its assets increased by \$20,000. Based only on this information, how much cash did Playdough Products generate during the year? Please ignore taxes for this problem.

24. During 2011, Lele Design earned net income of \$250,000. The firm neither bought nor sold any capital assets. The book value of its assets declined by the year's depreciation charge of \$200,000. The firm's operating cash flow for the year was \$450,000. The market value of its assets increased by \$300,000. What was Lele Design's economic income for the year? Why is this figure different from its accounting income? Please ignore taxes for this problem.



## Chapter 01 Interpreting Financial Statements **Answer Key**

### Multiple Choice Questions

1. Which of the following statements concerning the cash flow production cycle is true?
- A.** The profits reported in a given time period equal the cash flows generated.
  - B. A company's operations and finances are independent of each other.
  - C. Financial statements have nothing to do with reality.
  - D. The movement of cash to inventory, to accounts receivable, and back to cash is known as the firm's working capital cycle.
  - E. A profitable company will always have sufficient cash to meet its obligations.

*Difficulty: 2 Medium*

2. Which of the following statements concerning a firm's cash flows and profits is false?
- A. Managers must be at least as concerned with cash flows as with profits.
  - B.** A company that sells merchandise at a profit will generate cash soon enough to replenish cash flows required for continued production.
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*Difficulty: 1 Easy*

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Chapter 01 - Interpreting Financial Statements

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- B. decrease in notes payable
- C. decrease in common stock
- D. increase in inventory
- E.** increase in accounts payable

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- A. increase in notes payable
- B.** increase in inventory
- C. increase in long-term debt
- D. decrease in accounts receivable
- E. increase in common stock

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Selected information about South, Inc., a restaurant chain, follows.

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14. During 2011, how much cash (in \$ millions) did South collect from sales?

- A. 364
- B. 277
- C. 404
- D. 324**
- E. 451
- F. None of the above.

In 2011, sales were \$364 million, but account receivable rose \$40 million, indicating that the company only received \$324 million in cash. (This ignores possible changes in bad debt reserves.) Letting bop stand for beginning of period, and eop for end of period, the equation is (where AR = accounts receivable)

$$AR_{eop} = AR_{bop} + \text{Credit sales} - \text{Collections}$$

$$\text{Collections} = \text{Credit sales} - \text{Change in AR}$$

$$\$324 = \$364 - \$40$$

*Difficulty: 2 Medium*

15. During 2011, what was the cost of goods (in \$ millions) produced by the company?

- A. 223
- B. 194
- C. 252
- D. 228
- E. 218**
- F. None of the above.

During 2011, the company sold \$223 million of merchandise at cost, but finished goods inventory fell \$5 million, indicating that the company only produced \$218 million of merchandise. Letting bop stand for beginning of period, and eop for end of period, the equation is

$$\text{Inventory}_{\text{eop}} = \text{Inventory}_{\text{bop}} + \text{Production} - \text{Cost of sales}$$

$$\text{Production} = \text{Cost of sales} - \text{Change in Inventory}$$

$$\$218 = \$223 - \$5$$

*Difficulty: 2 Medium*

16. Assuming the company neither sold nor salvaged any assets during the year, what were the company's capital expenditures during 2011?

- A. 482
- B. 78
- C. 421
- D. 61
- E. 139**
- F. None of the above.

Net fixed assets rose \$78 million, depreciation reduced net fixed assets by \$61 million, so capital expenditures must have been \$139 million (ignoring asset sales or write-offs). Letting bop stand for beginning of period, and eop for end of period, the equation is

$$\text{Net fixed assets}_{\text{eop}} = \text{Net fixed assets}_{\text{bop}} + \text{Capital Expenditures} - \text{Depreciation}$$

$$\text{Capital Expenditures} = \text{Change in net fixed assets} + \text{Depreciation}$$

$$\$139 = \$78 + \$61$$

*Difficulty: 3 Hard*

17. Assuming that there were no financing cash flows during 2011 and basing your answer solely on the information provided, what were the cash flows from operations (in \$ millions) for 2011?

- A. 45
- B. 106
- C. 15
- D. 76**
- E. 31
- F. None of the above.

Cash flow from operations can be calculated directly from items in the table. Start with net income, remove any noncash items (such as depreciation), and add any cash transactions that are not captured by the income statement (such as changes to working capital accounts).

$$\begin{aligned}\text{CF from operations} &= \text{Net income} - \text{increase in acct. receivable} + \text{decrease in inventory} + \\ &\quad \text{increase in acct. payable} + \text{depreciation} \\ \text{CF from operations} &= 45 - 40 + 5 + 5 + 61 = \$76 \text{ million}\end{aligned}$$

*Difficulty: 3 Hard*

18. JM Case Inc. has a market value of \$5 million with 500,000 shares outstanding. The book value of its equity is \$1,750,000. What is JM Case's price per share?

- A. \$3.50
- B. \$5
- C. \$10**
- D. \$25
- E. \$50
- F. None of the above.

$$\text{Stock price per share} = \$5 \text{ million} / 500,000 \text{ shares} = \$10 \text{ per share}$$

*Difficulty: 1 Easy*

19. JM Case Inc. has a market value of \$5 million with 500,000 shares outstanding. The book value of its equity is \$1,750,000. What is JM Case's book value per share?

- A. \$3.50
- B. \$5
- C. \$10
- D. \$25
- E. \$50
- F. None of the above.

Book value per share =  $\$1,750,000 / 500,000 \text{ shares} = \$3.50 \text{ per share}$

*Difficulty: 1 Easy*

20. JM Case Inc. has a market value of \$5 million with 500,000 shares outstanding. The book value of its equity is \$1,750,000. If the company repurchases 20 percent of its shares in the stock market, what will be the book value of equity if all else remains the same?

- A. \$750,000
- B. \$1,250,000
- C. \$1,000,000
- D. \$1,400,000
- E. \$4,000,000
- F. None of the above.

JM Case will pay \$10 per share for the 100,000 shares ( $= 0.20 * 500,000$ ) it repurchases. This reduces the book value by \$1 million. Assuming all else remains the same, the new book value should be \$750,000.

*Difficulty: 2 Medium*



21. JM Case Inc. has a market value of \$5 million with 500,000 shares outstanding. The book value of its equity is \$1,750,000. If the company repurchases 20 percent of its shares in the stock market and there are no taxes or transactions costs and all else remains the same, what should the market value of the firm be after the repurchase?

- A. \$1,000,000
- B. \$1,750,000
- C. \$3,250,000
- D. \$4,000,000**
- E. \$5,000,000
- F. None of the above.

Since nothing else has changed, the market value should fall by exactly the amount of the cash paid in the transaction. The new market value will be \$4 million. Another way to think about this is to note that repurchase of the shares will reduce cash by \$1 million (or increase liabilities by the same amount if financed with debt), and thus the firm is worth \$1 million less to the owners after the repurchase, or \$4 million. After repurchasing 100,000 shares ( $= 0.20 \times 500,000$ ), 400,000 shares will be outstanding, and the price per share remains \$10 (\$4 million/400,000).

*Difficulty: 2 Medium*

#### Short Answer Questions

22. The book value of Little Statistic's total assets is \$400,000. Suppose Number Crunching Inc. acquires Little Statistic's assets for \$1 million and finances the purchase by selling \$600,000 in new stock, \$300,000 in new debt, and reducing cash by \$100,000. Describe how the acquisition affects Number Crunching's balance sheet.

First, let us account for Number Crunching's \$1 million expenditure. Cash will fall \$100,000, liabilities will rise \$300,000, and owners' equity will rise \$600,000. Next, let us account for the assets acquired. The accountants will write up the value of fixed assets and possibly inventory to their estimated replacement value; they will then add the difference between the acquisition price and the replacement value of the assets acquired to a goodwill account appearing in the long-term assets section of Number Crunching's balance sheet; and lastly, they will consolidate the two companies' balance sheets by adding like accounts together.

*Difficulty: 2 Medium*

23. Playdough Products earned net income of \$400,000 in 2011. The firm increased its accounts receivable during the year by \$250,000. The book value of its assets declined by the year's depreciation charge, which was \$180,000, and the market value of its assets increased by \$20,000. Based only on this information, how much cash did Playdough Products generate during the year? Please ignore taxes for this problem.

Playdough Products generated \$330,000 of cash during the year. The \$400,000 net income ignores the fact that accounts receivable rose \$250,000, a use of cash. It also treats \$180,000 depreciation as an expense, whereas it is a noncash charge. The \$20,000 increase in market value of assets adds to the value of the business, but is not a cash flow. Summary:

Accounting income	\$400,000
Depreciation charge	+ \$180,000
Increase in accounts receivable	<u>- \$250,000</u>
Cash generated	\$330,000

*Difficulty: 2 Medium*

24. During 2011, Lele Design earned net income of \$250,000. The firm neither bought nor sold any capital assets. The book value of its assets declined by the year's depreciation charge of \$200,000. The firm's operating cash flow for the year was \$450,000. The market value of its assets increased by \$300,000. What was Lele Design's economic income for the year? Why is this figure different from its accounting income? Please ignore taxes for this problem.

Lele Design generated economic income equal to \$750,000, comprised of \$450,000 in operating cash flow plus a \$300,000 increase in the market value of its assets. The \$500,000 difference between economic income and accounting income consists of the \$200,000 noncash charge of depreciation, and the \$300,000 appreciation in the market value of assets, which accounting income does not include.

*Difficulty: 2 Medium*