

CHAPTER 2—FINANCIAL STATEMENTS, CASH FLOW, AND TAXES

TRUE/FALSE

1. The annual report contains four basic financial statements: the income statement, balance sheet, statement of cash flows, and statement of stockholders' equity.

ANS: T PTS: 1 DIF: Difficulty: Easy
OBJ: LO: 2-1 NAT: BUSPROG: Reflective Thinking
STA: DISC: Financial statements, analysis, forecasting, and cash flows
LOC: TBA TOP: Annual report KEY: Bloom's: Knowledge

2. The primary reason the annual report is important in finance is that it is used by investors when they form expectations about the firm's future earnings and dividends, and the riskiness of those cash flows.

ANS: T PTS: 1 DIF: Difficulty: Easy
OBJ: LO: 2-1 NAT: BUSPROG: Reflective Thinking
STA: DISC: Financial statements, analysis, forecasting, and cash flows
LOC: TBA TOP: Annual report and expectations KEY: Bloom's: Knowledge

3. Consider the balance sheet of Wilkes Industries as shown below. Because Wilkes has \$800,000 of retained earnings, the company would be able to pay cash to buy an asset with a cost of \$200,000.

Cash	\$ 50,000	Accounts payable	\$ 100,000
Inventory	200,000	Accruals	<u>100,000</u>
Accounts receivable	<u>250,000</u>	Total CL	\$ 200,000
Total CA	\$ 500,000	Debt	200,000
Net fixed assets	\$ 900,000	Common stock	200,000
		Retained earnings	<u>800,000</u>
Total assets	<u>\$1,400,000</u>	Total L & E	<u>\$1,400,000</u>

ANS: F PTS: 1 DIF: Difficulty: Easy
OBJ: LO: 2-2 NAT: BUSPROG: Analytic
STA: DISC: Financial statements, analysis, forecasting, and cash flows
LOC: TBA TOP: Retained earnings versus cash KEY: Bloom's: Knowledge

4. On the balance sheet, total assets must always equal total liabilities and equity.

ANS: T PTS: 1 DIF: Difficulty: Easy
OBJ: LO: 2-2 NAT: BUSPROG: Reflective Thinking
STA: DISC: Financial statements, analysis, forecasting, and cash flows
LOC: TBA TOP: Balance sheet KEY: Bloom's: Knowledge

5. Assets other than cash are expected to produce cash over time, but the amount of cash they eventually produce could be higher or lower than the values at which these assets are carried on the books.

ANS: T PTS: 1 DIF: Difficulty: Easy
OBJ: LO: 2-2 NAT: BUSPROG: Reflective Thinking
STA: DISC: Financial statements, analysis, forecasting, and cash flows
LOC: TBA TOP: Balance sheet: non-cash assets KEY: Bloom's: Knowledge

6. The income statement shows the difference between a firm's income and its costs—i.e., its profits—during a specified period of time. However, not all reported income comes in the form of cash, and reported costs likewise may not correctly reflect cash outlays. Therefore, there may be a substantial difference between a firm's reported profits and its actual cash flow for the same period.

ANS: T PTS: 1 DIF: Difficulty: Easy
OBJ: LO: 2-3 NAT: BUSPROG: Reflective Thinking
STA: DISC: Financial statements, analysis, forecasting, and cash flows
LOC: TBA TOP: Income statement KEY: Bloom's: Knowledge

7. Net operating working capital is equal to operating current assets minus operating current liabilities.

ANS: T PTS: 1 DIF: Difficulty: Easy
OBJ: LO: 2-7 NAT: BUSPROG: Reflective Thinking
STA: DISC: Financial statements, analysis, forecasting, and cash flows
LOC: TBA TOP: Net operating working capital KEY: Bloom's: Knowledge

8. Total net operating capital is equal to net fixed assets.

ANS: F PTS: 1 DIF: Difficulty: Easy
OBJ: LO: 2-7 NAT: BUSPROG: Reflective Thinking
STA: DISC: Financial statements, analysis, forecasting, and cash flows
LOC: TBA TOP: Total net operating capital KEY: Bloom's: Knowledge

9. Net operating profit after taxes (NOPAT) is the amount of net income a company would generate from its operations if it had no interest income or interest expense.

ANS: T PTS: 1 DIF: Difficulty: Easy
OBJ: LO: 2-7 NAT: BUSPROG: Reflective Thinking
STA: DISC: Financial statements, analysis, forecasting, and cash flows
LOC: TBA TOP: Net operating profit after taxes (NOPAT)
KEY: Bloom's: Knowledge

10. The fact that 70% of the interest income received by a corporation is excluded from its taxable income encourages firms to use more debt financing than they would in the absence of this tax law provision.

ANS: F PTS: 1 DIF: Difficulty: Easy
OBJ: LO: 2-9 NAT: BUSPROG: Reflective Thinking
STA: DISC: Financial statements, analysis, forecasting, and cash flows
LOC: TBA TOP: Federal income taxes: interest income
KEY: Bloom's: Knowledge

11. If the tax laws were changed so that \$0.50 out of every \$1.00 of interest paid by a corporation was allowed as a tax-deductible expense, this would probably encourage companies to use more debt financing than they presently do, other things held constant.

ANS: F PTS: 1 DIF: Difficulty: Easy
OBJ: LO: 2-9 NAT: BUSPROG: Reflective Thinking
STA: DISC: Financial statements, analysis, forecasting, and cash flows
LOC: TBA TOP: Federal income taxes: interest expense
KEY: Bloom's: Knowledge

12. The interest and dividends paid by a corporation are considered to be deductible operating expenses, hence they decrease the firm's tax liability.

ANS: F PTS: 1 DIF: Difficulty: Easy
OBJ: LO: 2-9 NAT: BUSPROG: Reflective Thinking
STA: DISC: Financial statements, analysis, forecasting, and cash flows
LOC: TBA TOP: Federal income taxes: interest expense and dividends
KEY: Bloom's: Knowledge

13. The balance sheet is a financial statement that measures the flow of funds into and out of various accounts over time, while the income statement measures the firm's financial position at a point in time.

ANS: F PTS: 1 DIF: Difficulty: Easy
OBJ: LO: 2-3 NAT: BUSPROG: Reflective Thinking
STA: DISC: Financial statements, analysis, forecasting, and cash flows
LOC: TBA TOP: Financial statements KEY: Bloom's: Knowledge

14. Its retained earnings is the actual cash that the firm has generated through operations less the cash that has been paid out to stockholders as dividends. Retained earnings are kept in cash or near cash accounts and, thus, these cash accounts, when added together, will always be equal to the firm's total retained earnings.

ANS: F PTS: 1 DIF: Difficulty: Moderate
OBJ: LO: 2-4 NAT: BUSPROG: Reflective Thinking
STA: DISC: Financial statements, analysis, forecasting, and cash flows
LOC: TBA TOP: Retained earnings KEY: Bloom's: Comprehension

15. The retained earnings account on the balance sheet does not represent cash. Rather, it represents part of stockholders' claims against the firm's existing assets. This implies that retained earnings are in fact stockholders' reinvested earnings.

ANS: T PTS: 1 DIF: Difficulty: Moderate
OBJ: LO: 2-4 NAT: BUSPROG: Reflective Thinking
STA: DISC: Financial statements, analysis, forecasting, and cash flows
LOC: TBA TOP: Retained earnings KEY: Bloom's: Comprehension

16. In accounting, emphasis is placed on determining net income in accordance with generally accepted accounting principles. In finance, the primary emphasis is also on net income because that is what investors use to value the firm. However, a secondary financial consideration is cash flow, because cash is needed to operate the business.

ANS: F PTS: 1 DIF: Difficulty: Moderate
OBJ: LO: 2-6 NAT: BUSPROG: Reflective Thinking
STA: DISC: Financial statements, analysis, forecasting, and cash flows
LOC: TBA TOP: Cash flow and net income KEY: Bloom's: Comprehension

17. To estimate the cash flow from operations, depreciation must be added back to net income because it is a non-cash charge that has been deducted from revenue.

ANS: T PTS: 1 DIF: Difficulty: Moderate
OBJ: LO: 2-5 NAT: BUSPROG: Reflective Thinking
STA: DISC: Financial statements, analysis, forecasting, and cash flows
LOC: TBA TOP: Statement of cash flows KEY: Bloom's: Comprehension

18. The current cash flow from existing assets is highly relevant to the investor. However, since the value of the firm depends primarily upon its growth opportunities, profit projections from those opportunities are the only relevant future flows with which investors are concerned.

ANS: F PTS: 1 DIF: Difficulty: Moderate
OBJ: LO: 2-7 NAT: BUSPROG: Reflective Thinking
STA: DISC: Financial statements, analysis, forecasting, and cash flows
LOC: TBA TOP: Future cash flows KEY: Bloom's: Comprehension

19. Interest paid by a corporation is a tax deduction for the paying corporation, but dividends paid are not deductible. This treatment, other things held constant, tends to encourage the use of debt financing by corporations.

ANS: T PTS: 1 DIF: Difficulty: Moderate
OBJ: LO: 2-9 NAT: BUSPROG: Reflective Thinking
STA: DISC: Financial statements, analysis, forecasting, and cash flows
LOC: TBA TOP: Federal income taxes: interest expense and dividends
KEY: Bloom's: Comprehension

20. The time dimension is important in financial statement analysis. The balance sheet shows the firm's financial position at a given point in time, the income statement shows results over a period of time, and the statement of cash flows reflects changes in the firm's accounts over that period of time.

ANS: T PTS: 1 DIF: Difficulty: Moderate
OBJ: LO: 2-5 NAT: BUSPROG: Reflective Thinking
STA: DISC: Financial statements, analysis, forecasting, and cash flows
LOC: TBA TOP: Financial stmts: time dimension KEY: Bloom's: Comprehension

MULTIPLE CHOICE

21. Which of the following statements is CORRECT?
- The statement of cash needs tells us how much cash the firm will require during some future period, generally a month or a year.
 - The four most important financial statements provided in the annual report are the balance sheet, income statement, cash budget, and the statement of stockholders' equity.
 - The balance sheet gives us a picture of the firm's financial position at a point in time.
 - The income statement gives us a picture of the firm's financial position at a point in time.
 - The statement of cash flows tells us how much cash the firm has in the form of currency and demand deposits.

ANS: C PTS: 1 DIF: Difficulty: Easy
OBJ: LO: 2-1 NAT: BUSPROG: Analytic
STA: DISC: Financial statements, analysis, forecasting, and cash flows
LOC: TBA TOP: Financial statements KEY: Bloom's: Comprehension
MSC: TYPE: Multiple Choice: Conceptual

22. Which of the following statements is CORRECT?
- A typical industrial company's balance sheet lists the firm's assets that will be converted to cash first, and then goes on down to list the firm's longest lived assets last.
 - The balance sheet for a given year, say 2012, is designed to give us an idea of what happened to the firm during that year.
 - The balance sheet for a given year, say 2012, tells us how much money the company

earned during that year.

- d. The difference between the total assets reported on the balance sheet and the debts reported on this statement tells us the current market value of the stockholders' equity, assuming the statements are prepared in accordance with generally accepted accounting principles (GAAP).
- e. For most companies, the market value of the stock equals the book value of the stock as reported on the balance sheet.

ANS: A PTS: 1 DIF: Difficulty: Easy
OBJ: LO: 2-2 NAT: BUSPROG: Analytic
STA: DISC: Financial statements, analysis, forecasting, and cash flows
LOC: TBA TOP: Balance sheet KEY: Bloom's: Comprehension
MSC: TYPE: Multiple Choice: Conceptual

23. Other things held constant, which of the following actions would increase the amount of cash on a company's balance sheet?
- a. The company purchases a new piece of equipment.
 - b. The company repurchases common stock.
 - c. The company pays a dividend.
 - d. The company issues new common stock.
 - e. The company gives customers more time to pay their bills.

ANS: D PTS: 1 DIF: Difficulty: Easy
OBJ: LO: 2-2 NAT: BUSPROG: Analytic
STA: DISC: Financial statements, analysis, forecasting, and cash flows
LOC: TBA TOP: Balance sheet KEY: Bloom's: Comprehension
MSC: TYPE: Multiple Choice: Conceptual

24. Which of the following items is **NOT** included in current assets?
- a. Short-term, highly liquid, marketable securities.
 - b. Accounts receivable.
 - c. Inventory.
 - d. Bonds.
 - e. Cash.

ANS: D PTS: 1 DIF: Difficulty: Easy
OBJ: LO: 2-2 NAT: BUSPROG: Analytic
STA: DISC: Financial statements, analysis, forecasting, and cash flows
LOC: TBA TOP: Current assets KEY: Bloom's: Comprehension
MSC: TYPE: Multiple Choice: Conceptual

25. Which of the following items cannot be found on a firm's balance sheet under current liabilities?
- a. Accrued payroll taxes.
 - b. Accounts payable.
 - c. Short-term notes payable to the bank.
 - d. Accrued wages.
 - e. Cost of goods sold.

ANS: E PTS: 1 DIF: Difficulty: Easy
OBJ: LO: 2-2 NAT: BUSPROG: Analytic
STA: DISC: Financial statements, analysis, forecasting, and cash flows
LOC: TBA TOP: Current liabilities KEY: Bloom's: Comprehension
MSC: TYPE: Multiple Choice: Conceptual

26. Which of the following statements is CORRECT?

- The income statement for a given year, say 2012, is designed to give us an idea of how much the firm earned during that year.
- The focal point of the income statement is the cash account, because that account cannot be manipulated by "accounting tricks."
- The reported income of two otherwise identical firms cannot be manipulated by different accounting procedures provided the firms follow Generally Accepted Accounting Principles (GAAP).
- The reported income of two otherwise identical firms must be identical if the firms are publicly owned, provided they follow procedures that are permitted by the Securities and Exchange Commission (SEC).
- If a firm follows Generally Accepted Accounting Principles (GAAP), then its reported net income will be identical to its reported net cash flow.

ANS: A PTS: 1 DIF: Difficulty: Easy
 OBJ: LO: 2-3 NAT: BUSPROG: Analytic
 STA: DISC: Financial statements, analysis, forecasting, and cash flows
 LOC: TBA TOP: Income statement KEY: Bloom's: Comprehension
 MSC: TYPE: Multiple Choice: Conceptual

27. Below are the year-end balance sheets for Wolken Enterprises:

<u>Assets:</u>		
Cash	\$ 200,000	\$ 170,000
Accounts receivable	864,000	700,000
Inventories	<u>2,000,000</u>	<u>1,400,000</u>
Total current assets	\$3,064,000	\$2,270,000
Net fixed assets	<u>6,000,000</u>	<u>5,600,000</u>
Total assets	<u>\$9,064,000</u>	<u>\$7,870,000</u>
<u>Liabilities and equity:</u>		
Accounts payable	\$1,400,000	\$1,090,000
Notes payable	<u>1,600,000</u>	<u>1,800,000</u>
Total current liabilities	<u>\$3,000,000</u>	<u>\$2,890,000</u>
Long-term debt	2,400,000	2,400,000
Common stock	3,000,000	2,000,000
Retained earnings	<u>664,000</u>	<u>580,000</u>
Total common equity	<u>\$3,664,000</u>	<u>\$2,580,000</u>
Total liabilities and equity	<u>\$9,064,000</u>	<u>\$7,870,000</u>

Wolken has never paid a dividend on its common stock, and it issued \$2,400,000 of 10-year non-callable, long-term debt in 2012. As of the end of 2013, none of the principal on this debt had been repaid. Assume that the company's sales in 2012 and 2013 were the same. Which of the following statements must be CORRECT?

- Wolken increased its short-term bank debt in 2013.
- Wolken issued long-term debt in 2013.
- Wolken issued new common stock in 2013.
- Wolken repurchased some common stock in 2013.
- Wolken had negative net income in 2013.

ANS: C PTS: 1 DIF: Difficulty: Moderate
 OBJ: LO: 2-2 NAT: BUSPROG: Analytic
 STA: DISC: Financial statements, analysis, forecasting, and cash flows
 LOC: TBA TOP: Balance sheet KEY: Bloom's: Analysis
 MSC: TYPE: Multiple Choice: Conceptual

28. On its 2012 balance sheet, Barngrover Books showed \$510 million of retained earnings, and exactly that same amount was shown the following year in 2013. Assuming that no earnings restatements were issued, which of the following statements is CORRECT?
- Dividends could have been paid in 2013, but they would have had to equal the earnings for the year.
 - If the company lost money in 2013, they must have paid dividends.
 - The company must have had zero net income in 2013.
 - The company must have paid out half of its earnings as dividends.
 - The company must have paid no dividends in 2013.

ANS: A PTS: 1 DIF: Difficulty: Moderate
 OBJ: LO: 2-2 NAT: BUSPROG: Analytic
 STA: DISC: Financial statements, analysis, forecasting, and cash flows
 LOC: TBA TOP: Balance sheet KEY: Bloom's: Analysis
 MSC: TYPE: Multiple Choice: Conceptual

29. Below is the common equity section (in millions) of Fethe Industries' last two year-end balance sheets:

	<u>2012</u>	<u>2011</u>
Common stock	\$2,000	\$1,000
Retained earnings	<u>2,000</u>	<u>2,340</u>
Total common equity	<u>\$4,000</u>	<u>\$3,340</u>

The company has never paid a dividend to its common stockholders. Which of the following statements is CORRECT?

- The company's net income in 2011 was higher than in 2012.
- The company issued common stock in 2012.
- The market price of the company's stock doubled in 2012.
- The company had positive net income in both 2011 and 2012, but the company's net income in 2009 was lower than it was in 2011.
- The company has more equity than debt on its balance sheet.

ANS: B PTS: 1 DIF: Difficulty: Moderate
 OBJ: LO: 2-2 NAT: BUSPROG: Analytic
 STA: DISC: Financial statements, analysis, forecasting, and cash flows
 LOC: TBA TOP: Balance sheet KEY: Bloom's: Analysis
 MSC: TYPE: Multiple Choice: Conceptual

30. Which of the following statements is CORRECT?
- The more depreciation a firm has in a given year, the higher its EPS, other things held constant.
 - Typically, a firm's DPS should exceed its EPS.
 - Typically, a firm's EBIT should exceed its EBITDA.
 - If a firm is more profitable than average (e.g., Google), we would normally expect to see its stock price exceed its book value per share.
 - If a firm is more profitable than most other firms, we would normally expect to see its book value per share exceed its stock price, especially after several years of high inflation.

ANS: D PTS: 1 DIF: Difficulty: Moderate
 OBJ: LO: 2-3 NAT: BUSPROG: Analytic
 STA: DISC: Financial statements, analysis, forecasting, and cash flows
 LOC: TBA TOP: EPS, DPS, BVPS, and stock price KEY: Bloom's: Analysis
 MSC: TYPE: Multiple Choice: Conceptual

31. Which of the following statements is CORRECT?
- Depreciation and amortization are not cash charges, so neither of them has an effect on a firm's reported profits.
 - The more depreciation a firm reports, the higher its tax bill, other things held constant.
 - People sometimes talk about the firm's net cash flow, which is shown as the lowest entry on the income statement, hence it is often called "the bottom line."
 - Depreciation reduces a firm's cash balance, so an increase in depreciation would normally lead to a reduction in the firm's net cash flow.
 - Net cash flow (NCF) is often defined as follows:

$$\text{Net Cash Flow} = \text{Net Income} + \text{Depreciation and Amortization Charges.}$$

ANS: E PTS: 1 DIF: Difficulty: Moderate
 OBJ: LO: 2-6 NAT: BUSPROG: Analytic
 STA: DISC: Financial statements, analysis, forecasting, and cash flows
 LOC: TBA TOP: Depreciation, amortization, and net cash flow
 KEY: Bloom's: Analysis MSC: TYPE: Multiple Choice: Conceptual

32. Which of the following would be most likely to occur in the year after Congress, in an effort to increase tax revenue, passed legislation that forced companies to depreciate equipment over longer lives? Assume that sales, other operating costs, and tax rates are not affected, and assume that the same depreciation method is used for tax and stockholder reporting purposes.
- Companies' reported net incomes would decline.
 - Companies' net operating profits after taxes (NOPAT) would decline.
 - Companies' physical stocks of fixed assets would increase.
 - Companies' net cash flows would increase.
 - Companies' cash positions would decline.

ANS: E PTS: 1 DIF: Difficulty: Moderate
 OBJ: LO: 2-6 NAT: BUSPROG: Analytic
 STA: DISC: Financial statements, analysis, forecasting, and cash flows
 LOC: TBA TOP: Changes in depreciation KEY: Bloom's: Analysis
 MSC: TYPE: Multiple Choice: Conceptual

33. Which of the following factors could explain why Regal Industrial Fixtures had a negative net cash flow last year, even though the cash on its balance sheet increased?
- The company repurchased 20% of its common stock.
 - The company sold a new issue of bonds.
 - The company made a large investment in new plant and equipment.
 - The company paid a large dividend.
 - The company had high amortization expenses.

ANS: B PTS: 1 DIF: Difficulty: Moderate
 OBJ: LO: 2-5 NAT: BUSPROG: Analytic
 STA: DISC: Financial statements, analysis, forecasting, and cash flows
 LOC: TBA TOP: Net cash flow KEY: Bloom's: Analysis
 MSC: TYPE: Multiple Choice: Conceptual

34. Analysts following Armstrong Products recently noted that the company's operating net cash flow increased over the prior year, yet cash as reported on the balance sheet decreased. Which of the following factors could explain this situation?
- The company issued new long-term debt.
 - The company cut its dividend.
 - The company made a large investment in a profitable new plant.
 - The company sold a division and received cash in return.
 - The company issued new common stock.

ANS: C PTS: 1 DIF: Difficulty: Moderate
OBJ: LO: 2-5 NAT: BUSPROG: Analytic
STA: DISC: Financial statements, analysis, forecasting, and cash flows
LOC: TBA TOP: Net cash flow KEY: Bloom's: Analysis
MSC: TYPE: Multiple Choice: Conceptual

35. A security analyst obtained the following information from Prestopino Products' financial statements:

- Retained earnings at the end of 2011 were \$700,000, but retained earnings at the end of 2012 had declined to \$320,000.
- The company does not pay dividends.
- The company's depreciation expense is its only non-cash expense; it has no amortization charges.
- The company has no non-cash revenues.
- The company's net cash flow (NCF) for 2012 was \$150,000.

On the basis of this information, which of the following statements is CORRECT?

- a. Prestopino had negative net income in 2012.
- b. Prestopino's depreciation expense in 2012 was less than \$150,000.
- c. Prestopino had positive net income in 2012, but its income was less than its 2011 income.
- d. Prestopino's NCF in 2012 must be higher than its NCF in 2011.
- e. Prestopino's cash on the balance sheet at the end of 2012 must be lower than the cash it had on the balance sheet at the end of 2011.

ANS: A PTS: 1 DIF: Difficulty: Moderate
OBJ: LO: 2-5 NAT: BUSPROG: Analytic
STA: DISC: Financial statements, analysis, forecasting, and cash flows
LOC: TBA TOP: Net cash flow and net income KEY: Bloom's: Analysis
MSC: TYPE: Multiple Choice: Conceptual

36. Aubey Aircraft recently announced that its net income increased sharply from the previous year, yet its net cash flow from operations declined. Which of the following could explain this performance?

- a. The company's operating income declined.
- b. The company's expenditures on fixed assets declined.
- c. The company's cost of goods sold increased.
- d. The company's depreciation and amortization expenses declined.
- e. The company's interest expense increased.

ANS: D PTS: 1 DIF: Difficulty: Moderate
OBJ: LO: 2-5 NAT: BUSPROG: Analytic
STA: DISC: Financial statements, analysis, forecasting, and cash flows
LOC: TBA TOP: Net cash flow and net income KEY: Bloom's: Analysis
MSC: TYPE: Multiple Choice: Conceptual

37. Which of the following statements is CORRECT?

- a. The statement of cash flows shows how much the firm's cash—the total of currency, bank deposits, and short-term liquid securities (or cash equivalents)—increased or decreased during a given year.
- b. The statement of cash flows reflects cash flows from operations, but it does not reflect the effects of buying or selling fixed assets.
- c. The statement of cash flows shows where the firm's cash is located; indeed, it provides a listing of all banks and brokerage houses where cash is on deposit.
- d. The statement of cash flows reflects cash flows from continuing operations, but it does not

40. Which of the following statements is CORRECT?
- Net cash flow (NCF) is defined as follows:

$$\text{NCF} = \text{Net income} - \text{Depreciation and Amortization.}$$
 - Changes in working capital have no effect on free cash flow.
 - Free cash flow (FCF) is defined as follows:

$$\text{FCF} = \text{EBIT}(1 - T) + \text{Depreciation and Amortization} - \text{Capital expenditures required to sustain operations} - \text{Required changes in net operating working capital.}$$
 - Free cash flow (FCF) is defined as follows:

$$\text{FCF} = \text{EBIT}(1 - T) + \text{Depreciation and Amortization} + \text{Capital expenditures.}$$
 - Net cash flow is the same as free cash flow (FCF).

ANS: C PTS: 1 DIF: Difficulty: Moderate
 OBJ: LO: 2-7 NAT: BUSPROG: Analytic
 STA: DISC: Financial statements, analysis, forecasting, and cash flows
 LOC: TBA TOP: Depreciation, amortization, and free cash flow
 KEY: Bloom's: Analysis MSC: TYPE: Multiple Choice: Conceptual

41. Which of the following statements is CORRECT?
- The primary difference between EVA and accounting net income is that when net income is calculated, a deduction is made to account for the cost of common equity, whereas EVA represents net income before deducting the cost of the equity capital the firm uses.
 - MVA gives us an idea about how much value a firm's management has added during the last year.
 - MVA stands for market value added, and it is defined as follows:

$$\text{MVA} = (\text{Shares outstanding})(\text{Stock price}) + \text{Book value of common equity.}$$
 - EVA stands for economic value added, and it is defined as follows:

$$\text{EVA} = \text{EBIT}(1 - T) - (\text{Investor-supplied op. capital}) \times (A - T \text{ cost of capital}).$$
 - EVA gives us an idea about how much value a firm's management has added over the firm's life.

ANS: D PTS: 1 DIF: Difficulty: Moderate
 OBJ: LO: 2-8 NAT: BUSPROG: Analytic
 STA: DISC: Financial statements, analysis, forecasting, and cash flows
 LOC: TBA TOP: MVA and EVA KEY: Bloom's: Analysis
 MSC: TYPE: Multiple Choice: Conceptual

42. Which of the following statements is CORRECT?
- The maximum federal tax rate on personal income in 2010 was 50%.
 - Since companies can deduct dividends paid but not interest paid, our tax system favors the use of equity financing over debt financing, and this causes companies' debt ratios to be lower than they would be if interest and dividends were both deductible.
 - Interest paid to an individual is counted as income for tax purposes and taxed at the individual's regular tax rate, which in 2010 could go up to 35%, but dividends received were taxed at a maximum rate of 15%.
 - The maximum federal tax rate on corporate income in 2010 was 50%.
 - Corporations obtain capital for use in their operations by borrowing and by raising equity capital, either by selling new common stock or by retaining earnings. The cost of debt capital is the interest paid on the debt, and the cost of the equity is the dividends paid on the stock. Both of these costs are deductible from income when calculating income for tax purposes.

ANS: C PTS: 1 DIF: Difficulty: Moderate

OBJ: LO: 2-9 NAT: BUSPROG: Analytic
STA: DISC: Financial statements, analysis, forecasting, and cash flows
LOC: TBA TOP: Federal income tax system KEY: Bloom's: Analysis
MSC: TYPE: Multiple Choice: Conceptual

43. Which of the following statements is CORRECT?
- All corporations other than non-profit corporations are subject to corporate income taxes, which are 15% for the lowest amounts of income and 35% for the highest amounts of income.
 - The income of certain small corporations that qualify under the Tax Code is completely exempt from corporate income taxes. Thus, the federal government receives no tax revenue from these businesses.
 - All businesses, regardless of their legal form of organization, are taxed under the Business Tax Provisions of the Internal Revenue Code.
 - Small businesses that qualify under the Tax Code can elect not to pay corporate taxes, but then their owners must report their pro rata shares of the firm's income as personal income and pay taxes on that income.
 - Congress recently changed the tax laws to make dividend income received by individuals exempt from income taxes. Prior to the enactment of that law, corporate income was subject to double taxation, where the firm was first taxed on the income and stockholders were taxed again on the income when it was paid to them as dividends.

ANS: D PTS: 1 DIF: Difficulty: Moderate
OBJ: LO: 2-9 NAT: BUSPROG: Analytic
STA: DISC: Financial statements, analysis, forecasting, and cash flows
LOC: TBA TOP: Federal income tax system KEY: Bloom's: Analysis
MSC: TYPE: Multiple Choice: Conceptual

44. Danielle's Sushi Shop last year had (1) a negative net cash flow from operations, (2) a negative free cash flow, and (3) an increase in cash as reported on its balance sheet. Which of the following factors could explain this situation?
- The company had a sharp increase in its depreciation and amortization expenses.
 - The company had a sharp increase in its inventories.
 - The company had a sharp increase in its accrued liabilities.
 - The company sold a new issue of common stock.
 - The company made a large capital investment early in the year.

ANS: D PTS: 1 DIF: Difficulty: Moderate
OBJ: LO: 2-7 NAT: BUSPROG: Analytic
STA: DISC: Financial statements, analysis, forecasting, and cash flows
LOC: TBA TOP: NCF, FCF, and cash KEY: Bloom's: Analysis
MSC: TYPE: Multiple Choice: Conceptual

45. Assume that Congress recently passed a provision that will enable Barton's Rare Books (BRB) to double its depreciation expense for the upcoming year but will have no effect on its sales revenue or tax rate. Prior to the new provision, BRB's net income after taxes was forecasted to be \$4 million. Which of the following best describes the impact of the new provision on BRB's financial statements versus the statements without the provision? Assume that the company uses the same depreciation method for tax and stockholder reporting purposes.
- Net fixed assets on the balance sheet will decrease.
 - The provision will reduce the company's net cash flow.
 - The provision will increase the company's tax payments.
 - Net fixed assets on the balance sheet will increase.
 - The provision will increase the company's net income.

ANS: A PTS: 1 DIF: Difficulty: Moderate
OBJ: LO: 2-9 NAT: BUSPROG: Analytic
STA: DISC: Financial statements, analysis, forecasting, and cash flows
LOC: TBA TOP: Changes in depreciation KEY: Bloom's: Analysis
MSC: TYPE: Multiple Choice: Conceptual

46. The LeMond Corporation just purchased a new production line. Assume that the firm planned to depreciate the equipment over 5 years on a straight-line basis, but Congress then passed a provision that requires the company to depreciate the equipment on a straight-line basis over 7 years. Other things held constant, which of the following will occur as a result of this Congressional action? Assume that the company uses the same depreciation method for tax and stockholder reporting purposes.
- LeMond's tax liability for the year will be lower.
 - LeMond's taxable income will be lower.
 - LeMond's net fixed assets as shown on the balance sheet will be higher at the end of the year.
 - LeMond's cash position will improve (increase).
 - LeMond's reported net income after taxes for the year will be lower.

ANS: C PTS: 1 DIF: Difficulty: Moderate
OBJ: LO: 2-9 NAT: BUSPROG: Analytic
STA: DISC: Financial statements, analysis, forecasting, and cash flows
LOC: TBA TOP: Changes in depreciation KEY: Bloom's: Analysis
MSC: TYPE: Multiple Choice: Conceptual

47. Lucy's Music Emporium opened its doors on January 1, 2012, and it was granted permission to use the same depreciation calculations for shareholder reporting and income tax purposes. The company planned to depreciate its fixed assets over 20 years, but in December 2012 management realized that the assets would last for only 15 years. The firm's accountants plan to report the 2012 financial statements based on this new information. How would the new depreciation assumption affect the company's financial statements?
- The firm's net liabilities would increase.
 - The firm's reported net fixed assets would increase.
 - The firm's EBIT would increase.
 - The firm's reported 2012 earnings per share would increase.
 - The firm's cash position in 2012 and 2013 would increase.

ANS: E PTS: 1 DIF: Difficulty: Moderate
OBJ: LO: 2-5 NAT: BUSPROG: Analytic
STA: DISC: Financial statements, analysis, forecasting, and cash flows
LOC: TBA TOP: Changes in depreciation KEY: Bloom's: Analysis
MSC: TYPE: Multiple Choice: Conceptual

48. DeYoung Devices Inc., a new high-tech instrumentation firm, is building and equipping a new manufacturing facility. Assume that currently its equipment must be depreciated on a straight-line basis over 10 years, but Congress is considering legislation that would require the firm to depreciate the equipment over 7 years. If the legislation becomes law, which of the following would occur in the year following the change?
- The firm's reported net income would increase.
 - The firm's operating income (EBIT) would increase.
 - The firm's taxable income would increase.
 - The firm's net cash flow would increase.
 - The firm's tax payments would increase.

ANS: D PTS: 1 DIF: Difficulty: Moderate

OBJ: LO: 2-9 NAT: BUSPROG: Analytic
STA: DISC: Financial statements, analysis, forecasting, and cash flows
LOC: TBA TOP: Changes in depreciation KEY: Bloom's: Analysis
MSC: TYPE: Multiple Choice: Conceptual

49. Which of the following statements is CORRECT?
- If a company pays more in dividends than it generates in net income, its retained earnings as reported on the balance sheet will decline from the previous year's balance.
 - Dividends paid reduce the net income that is reported on a company's income statement.
 - If a company uses some of its bank deposits to buy short-term, highly liquid marketable securities, this will cause a decline in its current assets as shown on the balance sheet.
 - If a company issues new long-term bonds during the current year, this will increase its reported current liabilities at the end of the year.
 - Accounts receivable are reported as a current liability on the balance sheet.

ANS: A PTS: 1 DIF: Difficulty: Moderate
OBJ: LO: 2-5 NAT: BUSPROG: Analytic
STA: DISC: Financial statements, analysis, forecasting, and cash flows
LOC: TBA TOP: Financial statements KEY: Bloom's: Analysis
MSC: TYPE: Multiple Choice: Conceptual

50. Which of the following statements is CORRECT?
- One way to increase EVA is to achieve the same level of operating income but with more investor-supplied capital.
 - If a firm reports positive net income, its EVA must also be positive.
 - One drawback of EVA as a performance measure is that it mistakenly assumes that equity capital is free.
 - One way to increase EVA is to generate the same level of operating income but with less investor-supplied capital.
 - Actions that increase reported net income will always increase net cash flow.

ANS: D PTS: 1 DIF: Difficulty: Moderate
OBJ: LO: 2-8 NAT: BUSPROG: Analytic
STA: DISC: Financial statements, analysis, forecasting, and cash flows
LOC: TBA TOP: EVA, CF, and net income KEY: Bloom's: Analysis
MSC: TYPE: Multiple Choice: Conceptual

51. Which of the following statements is CORRECT?
- If a firm reports a loss on its income statement, then the retained earnings account as shown on the balance sheet will be negative.
 - Since depreciation is a source of funds, the more depreciation a company has, the larger its retained earnings will be, other things held constant.
 - A firm can show a large amount of retained earnings on its balance sheet yet need to borrow cash to make required payments.
 - Common equity includes common stock and retained earnings, less accumulated depreciation.
 - The retained earnings account as shown on the balance sheet shows the amount of cash that is available for paying dividends.

ANS: C PTS: 1 DIF: Difficulty: Moderate
OBJ: LO: 2-5 NAT: BUSPROG: Analytic
STA: DISC: Financial statements, analysis, forecasting, and cash flows
LOC: TBA TOP: Retained earnings KEY: Bloom's: Analysis
MSC: TYPE: Multiple Choice: Conceptual

52. Olivia Hardison, CFO of Impact United Athletic Designs, plans to have the company issue \$500 million of new common stock and use the proceeds to pay off some of its outstanding bonds. Assume that the company, which does not pay any dividends, takes this action, and that total assets, operating income (EBIT), and its tax rate all remain constant. Which of the following would occur?
- The company would have to pay less taxes.
 - The company's taxable income would fall.
 - The company's interest expense would remain constant.
 - The company would have less common equity than before.
 - The company's net income would increase.

ANS: E PTS: 1 DIF: Difficulty: Challenging
 OBJ: LO: 2-9 NAT: BUSPROG: Analytic
 STA: DISC: Financial statements, analysis, forecasting, and cash flows
 LOC: TBA TOP: Changes in leverage KEY: Bloom's: Analysis
 MSC: TYPE: Multiple Choice: Conceptual

53. Jessie's Bobcat Rentals' operations provided a negative net cash flow last year, yet the cash shown on its balance sheet increased. Which of the following statements could explain the increase in cash, assuming the company's financial statements were prepared under generally accepted accounting principles?
- The company had high depreciation expenses.
 - The company repurchased some of its common stock.
 - The company dramatically increased its capital expenditures.
 - The company retired a large amount of its long-term debt.
 - The company sold some of its fixed assets.

ANS: E PTS: 1 DIF: Difficulty: Challenging
 OBJ: LO: 2-5 NAT: BUSPROG: Analytic
 STA: DISC: Financial statements, analysis, forecasting, and cash flows
 LOC: TBA TOP: Net cash flow KEY: Bloom's: Analysis
 MSC: TYPE: Multiple Choice: Conceptual

54. Tucker Electronic System's current balance sheet shows total common equity of \$3,125,000. The company has 125,000 shares of stock outstanding, and they sell at a price of \$52.50 per share. By how much do the firm's market and book values per share differ?
- \$27.50
 - \$28.88
 - \$30.32
 - \$31.83
 - \$33.43

ANS: A

Shares outstanding	125,000
Price per share	\$52.50
Total book common equity	\$3,125,000
Book value per share	\$25.00
Difference between book and market values	\$27.50

PTS: 1 DIF: Difficulty: Easy OBJ: LO: 2-2
 NAT: BUSPROG: Analytic
 STA: DISC: Financial statements, analysis, forecasting, and cash flows
 LOC: TBA TOP: Balance sheet: market value vs. book value
 KEY: Bloom's: Application MSC: TYPE: Multiple Choice: Problem
 NOT: Students may need to use a significant amount of simple arithmetic to solve this problem. Although the calculations are simple, it will take them some time to set up the problem and do the

arithmetic.

55. Hunter Manufacturing Inc.'s December 31, 2012, balance sheet showed total common equity of \$2,050,000 and 100,000 shares of stock outstanding. During 2013, Hunter had \$250,000 of net income, and it paid out \$100,000 as dividends. What was the book value per share at 12/31/13, assuming that Hunter neither issued nor retired any common stock during 2013?
- a. \$20.90
 - b. \$22.00
 - c. \$23.10
 - d. \$24.26
 - e. \$25.47

ANS: B

12/31/2012 common equity	\$2,050,000
2013 net income	\$250,000
2013 dividends	\$100,000
2013 addition to retained earnings	\$150,000
12/31/2013 common equity	\$2,200,000
Shares outstanding	100,000
12/31/2013 BVPS	\$22.00

PTS: 1 DIF: Difficulty: Easy OBJ: LO: 2-2

NAT: BUSPROG: Analytic

STA: DISC: Financial statements, analysis, forecasting, and cash flows

LOC: TBA TOP: Balance sheet: change in BVPS from RE addition

KEY: Bloom's: Application MSC: TYPE: Multiple Choice: Problem

NOT: Students may need to use a significant amount of simple arithmetic to solve this problem. Although the calculations are simple, it will take them some time to set up the problem and do the arithmetic.

56. Companies generate income from their "regular" operations and from other sources like interest earned on the securities they hold, which is called non-operating income. Lindley Textiles recently reported \$12,500 of sales, \$7,250 of operating costs other than depreciation, and \$1,000 of depreciation. The company had no amortization charges and no non-operating income. It had \$8,000 of bonds outstanding that carry a 7.5% interest rate, and its federal-plus-state income tax rate was 40%. How much was Lindley's operating income, or EBIT?
- a. \$3,462
 - b. \$3,644
 - c. \$3,836
 - d. \$4,038
 - e. \$4,250

ANS: E

Sales	\$12,500
Operating costs excluding depr'n	\$7,250
Depreciation	\$1,000
Operating income (EBIT)	\$4,250

PTS: 1 DIF: Difficulty: Easy OBJ: LO: 2-3

NAT: BUSPROG: Analytic

STA: DISC: Financial statements, analysis, forecasting, and cash flows

LOC: TBA TOP: Income statement: EBIT KEY: Bloom's: Application

MSC: TYPE: Multiple Choice: Problem

NOT: Students may need to use a significant amount of simple arithmetic to solve this problem.

Although the calculations are simple, it will take them some time to set up the problem and do the arithmetic.

57. Frederickson Office Supplies recently reported \$12,500 of sales, \$7,250 of operating costs other than depreciation, and \$1,250 of depreciation. The company had no amortization charges and no non-operating income. It had \$8,000 of bonds outstanding that carry a 7.5% interest rate, and its federal-plus-state income tax rate was 40%. How much was the firm's taxable income, or earnings before taxes (EBT)?
- \$3,230.00
 - \$3,400.00
 - \$3,570.00
 - \$3,748.50
 - \$3,935.93

ANS: B

Bonds	\$8,000.00
Interest rate	7.50%
Sales	\$12,500.00
Operating costs excluding depr'n	\$7,250.00
Depreciation	\$1,250.00
Operating income (EBIT)	\$4,000.00
Interest charges	-\$600.00
Taxable income	\$3,400.00

PTS: 1 DIF: Difficulty: Easy OBJ: LO: 2-3

NAT: BUSPROG: Analytic

STA: DISC: Financial statements, analysis, forecasting, and cash flows

LOC: TBA TOP: Income statement: taxable income KEY: Bloom's: Application

MSC: TYPE: Multiple Choice: Problem

NOT: Students may need to use a significant amount of simple arithmetic to solve this problem. Although the calculations are simple, it will take them some time to set up the problem and do the arithmetic.

58. JBS Inc. recently reported net income of \$4,750 and depreciation of \$885. How much was its net cash flow, assuming it had no amortization expense and sold none of its fixed assets?
- \$4,831.31
 - \$5,085.59
 - \$5,353.25
 - \$5,635.00
 - \$5,916.75

ANS: D

Net income	\$4,750.00
Depreciation	\$885.00
NCF	\$5,635.00

PTS: 1 DIF: Difficulty: Easy OBJ: LO: 2-6

NAT: BUSPROG: Analytic

STA: DISC: Financial statements, analysis, forecasting, and cash flows

LOC: TBA TOP: Net cash flow KEY: Bloom's: Application

MSC: TYPE: Multiple Choice: Problem

NOT: Students may need to use a significant amount of simple arithmetic to solve this problem. Although the calculations are simple, it will take them some time to set up the problem and do the arithmetic.

59. Swinnerton Clothing Company's balance sheet showed total current assets of \$2,250, all of which were required in operations. Its current liabilities consisted of \$575 of accounts payable, \$300 of 6% short-term notes payable to the bank, and \$145 of accrued wages and taxes. What was its net operating working capital that was financed by investors?
- \$1,454
 - \$1,530
 - \$1,607
 - \$1,687
 - \$1,771

ANS: B

Current assets	\$2,250
Accounts payable	\$575
Accrued wages and taxes	\$145
Net operating working capital	\$1,530

Note that NOWC represents the current assets required in operations that are financed by investors, given that payables and accruals are generated spontaneously by operations and are thus "free."

PTS: 1

DIF: Difficulty: Easy

OBJ: LO: 2-7

NAT: BUSPROG: Analytic

STA: DISC: Financial statements, analysis, forecasting, and cash flows

LOC: TBA TOP: Net operating working capital KEY: Bloom's: Application

MSC: TYPE: Multiple Choice: Problem

NOT: Students may need to use a significant amount of simple arithmetic to solve this problem.

Although the calculations are simple, it will take them some time to set up the problem and do the arithmetic.

60. Over the years, Janjigian Corporation's stockholders have provided \$15,250 of capital, part when they purchased new issues of stock and part when they allowed management to retain some of the firm's earnings. The firm now has 1,000 shares of common stock outstanding, and it sells at a price of \$42.00 per share. How much value has Janjigian's management added to stockholder wealth over the years, i.e., what is Janjigian's MVA?
- \$21,788
 - \$22,935
 - \$24,142
 - \$25,413
 - \$26,750

ANS: E

Total book value of equity	\$15,250
Stock price per share	\$42.00
Shares outstanding	1,000
Market value of equity	42,000
MVA =	26,750

PTS: 1

DIF: Difficulty: Easy

OBJ: LO: 2-8

NAT: BUSPROG: Analytic

STA: DISC: Financial statements, analysis, forecasting, and cash flows

LOC: TBA TOP: MVA KEY: Bloom's: Application

MSC: TYPE: Multiple Choice: Problem

NOT: Students may need to use a significant amount of simple arithmetic to solve this problem.

Although the calculations are simple, it will take them some time to set up the problem and do the

arithmetic.

61. Meric Mining Inc. recently reported \$15,000 of sales, \$7,500 of operating costs other than depreciation, and \$1,200 of depreciation. The company had no amortization charges, it had outstanding \$6,500 of bonds that carry a 6.25% interest rate, and its federal-plus-state income tax rate was 35%. How much was the firm's net income after taxes? Meric uses the same depreciation expense for tax and stockholder reporting purposes.
- \$3,284.55
 - \$3,457.42
 - \$3,639.39
 - \$3,830.94
 - \$4,022.48

ANS: D

Bonds	\$6,500
Interest rate	6.25%
Tax rate	35%
Sales	\$ 15,000
Operating costs excluding depr'n	\$ 7,500
Depreciation	<u>\$ 1,200</u>
Operating income (EBIT)	\$6,300.00
Interest charges	<u>-\$ 406.25</u>
Taxable income	\$5,893.75
Taxes	<u>-\$2,062.81</u>
Net income	\$3,830.94

PTS: 1

DIF: Difficulty: Easy

OBJ: LO: 2-3

NAT: BUSPROG: Analytic

STA: DISC: Financial statements, analysis, forecasting, and cash flows

LOC: TBA TOP: Income statement: net after-tax income

KEY: Bloom's: Analysis

MSC: TYPE: Multiple Choice: Problem

NOT: Students may need to use a significant amount of simple arithmetic to solve this problem.

Although the calculations are simple, it will take them some time to set up the problem and do the arithmetic.

62. On 12/31/2013, Heaton Industries Inc. reported retained earnings of \$675,000 on its balance sheet, and it reported that it had \$172,500 of net income during the year. On its previous balance sheet, at 12/31/2012, the company had reported \$555,000 of retained earnings. No shares were repurchased during 2013. How much in dividends did Heaton pay during 2013?
- \$47,381
 - \$49,875
 - \$52,500
 - \$55,125
 - \$57,881

ANS: C

12/31/2013 RE	\$675,000
12/31/2012 RE	\$555,000
Change in RE	\$120,000
Net income for 2013	\$172,500
Dividends = net income – change	\$52,500

PTS: 1

DIF: Difficulty: Easy

OBJ: LO: 2-4

NAT: BUSPROG: Analytic

STA: DISC: Financial statements, analysis, forecasting, and cash flows
 LOC: TBA TOP: Statement of stockholders' equity: dividends
 KEY: Bloom's: Analysis MSC: TYPE: Multiple Choice: Problem
 NOT: Students may need to use a significant amount of simple arithmetic to solve this problem.
 Although the calculations are simple, it will take them some time to set up the problem and do the arithmetic.

63. Ullrich Printing Inc. paid out \$21,750 of common dividends during the year. It ended the year with \$187,500 of retained earnings versus the prior year's retained earnings of \$132,250. How much net income did the firm earn during the year?
- \$77,000
 - \$80,850
 - \$84,893
 - \$89,137
 - \$93,594

ANS: A

Net income = The change in retained earnings plus the dividends paid:

Current RE	\$187,500
Previous RE = Current RE – increment	\$132,250
Change in RE	\$55,250
Plus dividends paid	\$21,750
= Net income	\$77,000

PTS: 1 DIF: Difficulty: Easy OBJ: LO: 2-4

NAT: BUSPROG: Analytic

STA: DISC: Financial statements, analysis, forecasting, and cash flows

LOC: TBA TOP: Statement of stockholders' equity: NI

KEY: Bloom's: Analysis MSC: TYPE: Multiple Choice: Problem

NOT: Students may need to use a significant amount of simple arithmetic to solve this problem.

Although the calculations are simple, it will take them some time to set up the problem and do the arithmetic.

64. NNR Inc.'s balance sheet showed total current assets of \$1,875,000 plus \$4,225,000 of net fixed assets. All of these assets were required in operations. The firm's current liabilities consisted of \$475,000 of accounts payable, \$375,000 of 6% short-term notes payable to the bank, and \$150,000 of accrued wages and taxes. Its remaining capital consisted of long-term debt and common equity. What was NNR's total investor-provided operating capital?
- \$4,694,128
 - \$4,941,188
 - \$5,201,250
 - \$5,475,000
 - \$5,748,750

ANS: D

Current assets		\$1,875,000
Net fixed assets		\$4,225,000
Total assets (all are operating assets)		\$6,100,000
Spontaneous "free" capital:	Acc'ts payable	\$475,000
	Accruals	\$150,000
Total investor-provided operating capital		\$5,475,000

66. TSW Inc. had the following data for last year: Net income = \$800; Net operating profit after taxes (NOPAT) = \$700; Total assets = \$3,000; and Total operating capital = \$2,000. Information for the just-completed year is as follows: Net income = \$1,000; Net operating profit after taxes (NOPAT) = \$925; Total assets = \$2,600; and Total operating capital = \$2,500. How much free cash flow did the firm generate during the just-completed year?
- \$383
 - \$425
 - \$468
 - \$514
 - \$566

ANS: B

	<u>Prior Year</u>	<u>Current Year</u>
NOPAT = EBIT(1 – T)	\$700	\$925
Total operating capital	\$2,000	\$2,500

FCF this year = NOPAT – Net investment in new operating capital

FCF this year = \$925 – \$500

FCF this year = **\$425**

PTS: 1

DIF: Difficulty: Moderate

OBJ: LO: 2-7

NAT: BUSPROG: Analytic

STA: DISC: Financial statements, analysis, forecasting, and cash flows

LOC: TBA TOP: Free cash flow

KEY: Bloom's: Analysis

MSC: TYPE: Multiple Choice: Problem

67. Rao Corporation has the following balance sheet. How much net operating working capital does the firm have?

Cash	\$ 10	Accounts payable	\$ 20
Short-term investments		Accruals	20
Accounts receivable	50	Notes payable	<u>50</u>
Inventory	<u>40</u>	Current liabilities	\$ 90
Current assets	\$130	Long-term debt	0
Net fixed assets	<u>100</u>	Common equity	30
		Retained earnings	<u>50</u>
Total assets	<u>\$230</u>	Total liab. & equity	<u>\$230</u>

- \$54.00
- \$60.00
- \$66.00
- \$72.60
- \$79.86

ANS: B

Net operating working capital = Operating current assets – Operating current liabilities

NOWC = \$100.00 – \$40.00

NOWC = **\$60.00**

PTS: 1

DIF: Difficulty: Moderate

OBJ: LO: 2-7

NAT: BUSPROG: Analytic

STA: DISC: Financial statements, analysis, forecasting, and cash flows

LOC: TBA TOP: Net operating working capital

KEY: Bloom's: Analysis

MSC: TYPE: Multiple Choice: Problem

68. Bae Inc. has the following income statement. How much net operating profit after taxes (NOPAT) does the firm have?

Sales	\$2,000.00
Costs	1,200.00
Depreciation	<u>100.00</u>
EBIT	\$ 700.00
Interest expense	<u>200.00</u>
EBT	\$ 500.00
Taxes (35%)	<u>175.00</u>
Net income	<u>\$ 325.00</u>

- a. \$370.60
- b. \$390.11
- c. \$410.64
- d. \$432.25
- e. \$455.00

ANS: E

EBIT	\$700.00
Tax rate	35%
NOPAT =	\$455.00

PTS: 1 DIF: Difficulty: Moderate OBJ: LO: 2-7

NAT: BUSPROG: Analytic

STA: DISC: Financial statements, analysis, forecasting, and cash flows

LOC: TBA TOP: Net operating profit after taxes (NOPAT)

KEY: Bloom's: Analysis MSC: TYPE: Multiple Choice: Problem

69. EP Enterprises has the following income statement. How much net operating profit after taxes (NOPAT) does the firm have?

Sales	\$1,800.00
Costs	1,400.00
Depreciation	<u>250.00</u>
EBIT	\$ 150.00
Interest expense	<u>70.00</u>
EBT	\$ 80.00
Taxes (40%)	<u>32.00</u>
Net income	<u>\$ 48.00</u>

- a. \$81.23
- b. \$85.50
- c. \$90.00
- d. \$94.50
- e. \$99.23

ANS: C

EBIT	\$150.00
Tax rate	40%
NOPAT =	\$90.00

PTS: 1 DIF: Difficulty: Moderate OBJ: LO: 2-7
 NAT: BUSPROG: Analytic
 STA: DISC: Financial statements, analysis, forecasting, and cash flows
 LOC: TBA TOP: Net operating profit after taxes (NOPAT)
 KEY: Bloom's: Analysis MSC: TYPE: Multiple Choice: Problem

70. Tibbs Inc. had the following data for the year ending 12/31/12: Net income = \$300; Net operating profit after taxes (NOPAT) = \$400; Total assets = \$2,500; Short-term investments = \$200; Stockholders' equity = \$1,800; Total debt = \$700; and Total operating capital = \$2,300. What was its return on invested capital (ROIC)?
- 14.91%
 - 15.70%
 - 16.52%
 - 17.39%
 - 18.26%

ANS: D
 NOPAT \$400
 Total operating capital \$2,300

ROIC = NOPAT/Total operating capital
 ROIC = \$400/\$2,300
 ROIC = **17.39%**

PTS: 1 DIF: Difficulty: Moderate OBJ: LO: 2-7
 NAT: BUSPROG: Analytic
 STA: DISC: Financial statements, analysis, forecasting, and cash flows
 LOC: TBA TOP: Return on invested capital (ROIC) KEY: Bloom's: Analysis
 MSC: TYPE: Multiple Choice: Problem

71. Zumbahlen Inc. has the following balance sheet. How much total operating capital does the firm have?

Cash	\$ 20.00	Accounts payable	\$ 30.00
Short-term investments	50.00	Accruals	50.00
Accounts receivable	20.00	Notes payable	<u>30.00</u>
Inventory	<u>60.00</u>	Current liabilities	\$110.00
Current assets	\$150.00	Long-term debt	70.00
Gross fixed assets	\$140.00	Common stock	30.00
Accumulated deprec.	<u>40.00</u>	Retained earnings	<u>40.00</u>
Net fixed assets	<u>\$100.00</u>	Total common equity	\$ 70.00
Total assets	<u>\$250.00</u>	Total liab. & equity	<u>\$250.00</u>

- \$114.00
- \$120.00
- \$126.00
- \$132.30
- \$138.92

ANS: B
 Total op. capital = Operating current assets – Operating current liabilities + Net fixed assets
 Total operating capital = \$100.00 – \$80.00 + \$100.00
 Total operating capital = **\$120.00**

PTS: 1 DIF: Difficulty: Moderate OBJ: LO: 2-7

NAT: BUSPROG: Analytic
 STA: DISC: Financial statements, analysis, forecasting, and cash flows
 LOC: TBA TOP: Total operating capital KEY: Bloom's: Analysis
 MSC: TYPE: Multiple Choice: Problem

72. Barnes' Brothers has the following data for the year ending 12/31/12: Net income = \$600; Net operating profit after taxes (NOPAT) = \$700; Total assets = \$2,500; Short-term investments = \$200; Stockholders' equity = \$1,800; Total debt = \$700; and Total operating capital = \$2,100. Barnes' weighted average cost of capital is 10%. What is its economic value added (EVA)?
- \$399.11
 - \$420.11
 - \$442.23
 - \$465.50
 - \$490.00

ANS: E

NOPAT	\$700
Total operating capital	\$2,100
WACC	10.00%

EVA = NOPAT – Total operating capital × WACC
 EVA = \$700.00 – \$2,100.00 × 10.00%
 EVA = **\$490.00**

PTS: 1 DIF: Difficulty: Moderate OBJ: LO: 2-8
 NAT: BUSPROG: Analytic
 STA: DISC: Financial statements, analysis, forecasting, and cash flows
 LOC: TBA TOP: Economic Value Added (EVA) KEY: Bloom's: Analysis
 MSC: TYPE: Multiple Choice: Problem

73. Edwards Electronics recently reported \$11,250 of sales, \$5,500 of operating costs other than depreciation, and \$1,250 of depreciation. The company had no amortization charges, it had \$3,500 of bonds that carry a 6.25% interest rate, and its federal-plus-state income tax rate was 35%. How much was its net cash flow?
- \$3,284.75
 - \$3,457.63
 - \$3,639.61
 - \$3,831.17
 - \$4,032.81

ANS: E

Bonds	\$ 3,500.00
Interest rate	6.25%
Tax rate	35.00%
Sales	\$11,250.00
Operating costs excluding depr'n	\$ 5,500.00
Depreciation	<u>\$ 1,250.00</u>
Operating income (EBIT)	\$ 4,500.00
Interest charges	<u>\$ 218.75</u>
Taxable income	\$ 4,281.25
Taxes	<u>\$ 1,498.44</u>
Net income	<u>\$ 2,782.81</u>
Net cash flow = Net income + deprn	<u>\$ 4,032.81</u>

PTS: 1 DIF: Difficulty: Moderate OBJ: LO: 2-6
 NAT: BUSPROG: Analytic
 STA: DISC: Financial statements, analysis, forecasting, and cash flows
 LOC: TBA TOP: Income statement: net cash flow KEY: Bloom's: Analysis
 MSC: TYPE: Multiple Choice: Problem

74. Wells Water Systems recently reported \$8,250 of sales, \$4,500 of operating costs other than depreciation, and \$950 of depreciation. The company had no amortization charges, it had \$3,250 of outstanding bonds that carry a 6.75% interest rate, and its federal-plus-state income tax rate was 35%. In order to sustain its operations and thus generate sales and cash flows in the future, the firm was required to spend \$750 to buy new fixed assets and to invest \$250 in net operating working capital. How much free cash flow did Wells generate?
- \$1,770.00
 - \$1,858.50
 - \$1,951.43
 - \$2,049.00
 - \$2,151.45

ANS: A

Bonds	\$3,250.00
Interest rate	6.75%
Tax rate	35%
Required addition to net operating working capital	\$250.00
Required capital expenditures (fixed assets)	\$750.00
Sales	\$8,250.00
Operating costs excluding depr'n	\$4,500.00
Depreciation	\$950.00
Operating income (EBIT)	\$2,800.00

$$\text{FCF} = \text{EBIT}(1 - T) + \text{Depr'n} - \text{Cap Ex} - \Delta\text{Net Op WC}$$

$$\text{FCF} = \$1,820 + \$950 - \$750 - \$250$$

$$\text{FCF} = \mathbf{\$1,770.00}$$

PTS: 1 DIF: Difficulty: Moderate OBJ: LO: 2-7
 NAT: BUSPROG: Analytic
 STA: DISC: Financial statements, analysis, forecasting, and cash flows
 LOC: TBA TOP: Income statement: free cash flow KEY: Bloom's: Analysis
 MSC: TYPE: Multiple Choice: Problem

75. HHH Inc. reported \$12,500 of sales and \$7,025 of operating costs (including depreciation). The company had \$18,750 of investor-supplied operating assets (or capital), the weighted average cost of that capital (the WACC) was 9.5%, and the federal-plus-state income tax rate was 40%. What was HHH's Economic Value Added (EVA), i.e., how much value did management add to stockholders' wealth during the year?
- \$1,357.13
 - \$1,428.56
 - \$1,503.75
 - \$1,578.94
 - \$1,657.88

ANS: C

Sales	\$12,500
Operating costs	\$7,025
Operating income (EBIT)	\$5,475

WACC	9.5%
Tax rate	40%
Investor-supplied capital	\$18,750

$$\text{EVA} = \text{EBIT}(1 - T) - \text{Investor Capital} \times \text{WACC}$$

$$\text{EVA} = \$3,285.00 - \$1,781.25$$

$$\text{EVA} = \mathbf{\$1,503.75}$$

PTS: 1 DIF: Difficulty: Challenging OBJ: LO: 2-8
 NAT: BUSPROG: Analytic
 STA: DISC: Financial statements, analysis, forecasting, and cash flows
 LOC: TBA TOP: Economic Value Added (EVA) KEY: Bloom's: Analysis
 MSC: TYPE: Multiple Choice: Problem

76. Last year, Michelson Manufacturing reported \$10,250 of sales, \$3,500 of operating costs other than depreciation, and \$1,250 of depreciation. The company had no amortization charges, it had \$3,500 of bonds outstanding that carry a 6.5% interest rate, and its federal-plus-state income tax rate was 35%. This year's data are expected to remain unchanged except for one item, depreciation, which is expected to increase by \$725. By how much will the depreciation change cause the firm's net after-tax income and its net cash flow to change? Note that the company uses the same depreciation calculations for tax and stockholder reporting purposes.
- \$383.84; \$206.68
 - \$404.04; \$217.56
 - \$425.30; \$229.01
 - \$447.69; \$241.06
 - \$471.25; \$253.75

ANS: E

This problem can be worked very easily—just multiply the increase in depreciation by $(1 - T)$ to get the decrease in net income, and then add to the change in income the change in depreciation to get the change in net cash flow:

Change in depreciation	\$725
Tax rate	35.00%
Reduction in net income = Change in Depr'n $(1 - \text{Tax rate})$	-\$471.25
Increase in net cash flow = Change in Depr'n – reduction in NI	\$253.75

We can also get the answer the long way, which explains things in more detail:

	<u>Old</u>	<u>New</u>	<u>Change</u>
Bonds	\$3,500	\$3,500	\$0.00
Interest rate	6.50%	6.50%	\$0.00
Tax rate	35%	35%	\$0.00
Sales	\$10,250	\$10,250	\$0.00
Operating costs excluding depr'n	\$3,500	\$3,500	\$0.00
Depreciation	\$1,250	\$1,975	\$725.00
Operating income (EBIT)	\$5,500	\$4,775	-\$725.00
Interest charges	\$228	\$228	\$0.00
Taxable income	\$5,273	\$4,548	-\$725.00
Taxes	\$1,845	\$1,592	-\$253.75
Net income after taxes	\$3,427	\$2,956	-\$471.25
Net cash flow	\$4,677	\$4,931	\$253.75
Check on NCF: $\Delta\text{NCF} = \text{change in depreciation} \times \text{tax rate}$			\$253.75

We like this problem because it illustrates that an increase in depreciation will decrease the firm's net income yet increase its net cash flow, and cash is king.

PTS: 1 DIF: Difficulty: Challenging OBJ: LO: 2-7
 NAT: BUSPROG: Analytic
 STA: DISC: Financial statements, analysis, forecasting, and cash flows
 LOC: TBA TOP: Changes in net income and NCF KEY: Bloom's: Analysis
 MSC: TYPE: Multiple Choice: Problem

77. Bartling Energy Systems recently reported \$9,250 of sales, \$5,750 of operating costs other than depreciation, and \$700 of depreciation. The company had no amortization charges, it had \$3,200 of outstanding bonds that carry a 5% interest rate, and its federal-plus-state income tax rate was 35%. In order to sustain its operations and thus generate sales and cash flows in the future, the firm was required to make \$1,250 of capital expenditures on new fixed assets and to invest \$300 in net operating working capital. By how much did the firm's net income exceed its free cash flow?
- \$673.27
 - \$708.70
 - \$746.00
 - \$783.30
 - \$822.47

ANS: C

Bonds	\$3,200.00
Interest rate	5.00%
Tax rate	35.00%
Required capital expenditures (fixed assets)	\$1,250.00
Required addition to net operating working capital	\$300.00
Sales	\$9,250.00
Operating costs excluding depr'n	\$5,750.00
Depreciation	\$700.00
Operating income (EBIT)	\$2,800.00
Interest charges	\$160.00
Taxable income (EBT)	\$2,640.00
Taxes	\$924.00
Net income after taxes	\$1,716.00

$$\text{FCF} = \text{BIT}(1 - T) + \text{Depr'n} - \text{Cap Ex} - \Delta\text{Net Op WC}$$

$$\text{FCF} = \$1,820 + \$700 - \$1,250 - \$300$$

$$\text{FCF} = \$970.00$$

$$\text{Difference between net income and FCF} = \mathbf{\$746.00}$$

PTS: 1 DIF: Difficulty: Challenging OBJ: LO: 2-7
 NAT: BUSPROG: Analytic
 STA: DISC: Financial statements, analysis, forecasting, and cash flows
 LOC: TBA TOP: Income stmt: FCF vs. net income KEY: Bloom's: Analysis
 MSC: TYPE: Multiple Choice: Problem