Principles of Managerial Finance, 14e **(Gitman/Zutter)**
Chapter 13 Leverage and Capital Structure

13.1 Discuss leverage, capital structure, breakeven analysis, the operating breakeven point, and the effect of changing costs on the breakeven point.

1) Generally, increases in leverage result in increased return and risk.
Answer: TRUE
Diff: 1
Topic: Leverage
Learning Obj.: LG 1
Learning Outcome: F-21
Question Status: Previous Edition
AACSB Tag: Analytic Skills

2) Generally, decreases in leverage result in increased return and risk, whereas increases in leverage result in decreased return and risk.
Answer: FALSE
Diff: 1
Topic: Leverage
Learning Obj.: LG 1
Learning Outcome: F-21
Question Status: Previous Edition
AACSB Tag: Analytic Skills

3) Total leverage can be defined as the potential use of fixed costs, both operating and financial, to magnify the effect of changes in sales on a firm's earnings per share.
Answer: TRUE
Diff: 1
Topic: Leverage
Learning Obj.: LG 1
Learning Outcome: F-21
Question Status: Previous Edition
AACSB Tag: Analytic Skills

4) Leverage results from the use of equity to magnify returns to a firm's owners.
Answer: FALSE
Diff: 1
Topic: Leverage
Learning Obj.: LG 1
Learning Outcome: F-21
Question Status: Previous Edition
AACSB Tag: Analytic Skills

5) Operating leverage is concerned with the relationship between a firm's sales revenue and its financial expenses.
Answer: FALSE
Diff: 1
Topic: Leverage
Learning Obj.: LG 1
Learning Outcome: F-21
Question Status: Previous Edition
AACSB Tag: Analytic Skills

6) Financial leverage is concerned with the relationship between a firm's earnings after interest and taxes and its common stock earnings per share.
Answer: FALSE
Diff: 1
Topic: Leverage
Learning Obj.: LG 1
Learning Outcome: F-21
Question Status: Previous Edition
AACSB Tag: Analytic Skills

7) Total leverage is concerned with the relationship between a firm's sales revenue and its common stock earnings per share.
Answer: TRUE
Diff: 1
Topic: Leverage
Learning Obj.: LG 1
Learning Outcome: F-21
Question Status: Previous Edition
AACSB Tag: Analytic Skills

8) A firm's capital structure is the mix of the current liabilities, long-term debt, and equity maintained by the firm.
Answer: FALSE
Diff: 1
Topic: Leverage
Learning Obj.: LG 1
Learning Outcome: F-21
Question Status: Previous Edition
AACSB Tag: Analytic Skills

9) The levels of fixed-cost assets and funds that management selects affect the variability of returns.
Answer: TRUE
Diff: 1
Topic: Leverage
Learning Obj.: LG 1
Learning Outcome: F-21
Question Status: Previous Edition
AACSB Tag: Analytic Skills

10) The amount of leverage in a firm's capital structure—the mix of long-term debt and equity maintained by the firm—can significantly affect its value by affecting return and risk.
Answer: TRUE
Diff: 1
Topic: Leverage
Learning Obj.: LG 1
Learning Outcome: F-21
Question Status: Previous Edition
AACSB Tag: Analytic Skills

11) Both operating and financial leverage result in the magnification of return as well as risk.
Answer: TRUE
Diff: 1
Topic: Leverage
Learning Obj.: LG 1
Learning Outcome: F-21
Question Status: Previous Edition
AACSB Tag: Analytic Skills

12) While operating leverage results only in a magnification of returns, financial leverage results only in a magnification of risk.
Answer: FALSE
Diff: 1
Topic: Leverage
Learning Obj.: LG 1
Learning Outcome: F-21
Question Status: Previous Edition
AACSB Tag: Analytic Skills

13) The dollar breakeven sales level can be solved for by dividing fixed costs by the contribution margin ratio.
Answer: TRUE
Diff: 1
Topic: Breakeven Analysis
Learning Obj.: LG 1
Learning Outcome: F-21
Question Status: Previous Edition
AACSB Tag: Analytic Skills

14) The dollar breakeven sales level can be solved for by dividing fixed costs by the dollar contribution margin.
Answer: FALSE
Diff: 1
Topic: Breakeven Analysis
Learning Obj.: LG 1
Learning Outcome: F-21
Question Status: Previous Edition
AACSB Tag: Analytic Skills

15) Breakeven analysis is used by a firm to determine the level of operations necessary to cover all fixed operating costs and to evaluate the profitability associated with various levels of production.
Answer: FALSE
Diff: 1
Topic: Breakeven Analysis
Learning Obj.: LG 1
Learning Outcome: F-21
Question Status: Revised
AACSB Tag: Analytic Skills

16) A firm's operating breakeven point is the level of sales necessary to cover all fixed operating costs.
Answer: FALSE
Diff: 1
Topic: Breakeven Analysis
Learning Obj.: LG 1
Learning Outcome: F-21
Question Status: Previous Edition
AACSB Tag: Analytic Skills

17) In finding the operating breakeven point, it is important to divide the cost of goods sold and operating expenses into fixed and variable operating costs.
Answer: TRUE
Diff: 1
Topic: Breakeven Analysis
Learning Obj.: LG 1
Learning Outcome: F-21
Question Status: New
AACSB Tag: Analytic Skills

18) At the operating breakeven point, the sales revenue is equal to the sum of the fixed and variable operating costs.
Answer: TRUE
Diff: 1
Topic: Breakeven Analysis
Learning Obj.: LG 1
Learning Outcome: F-21
Question Status: Previous Edition
AACSB Tag: Analytic Skills

19) Earnings before interest and taxes are positive above the operating breakeven point, and a loss occurs below it.
Answer: TRUE
Diff: 1
Topic: Breakeven Analysis
Learning Obj.: LG 1
Learning Outcome: F-21
Question Status: Previous Edition
AACSB Tag: Analytic Skills

20) For sales levels below the operating breakeven point, sales revenue exceeds total operating costs, and earnings before interest and taxes is greater than zero.
Answer: FALSE
Diff: 1
Topic: Breakeven Analysis
Learning Obj.: LG 1
Learning Outcome: F-21
Question Status: Previous Edition
AACSB Tag: Analytic Skills

21) An increase in cost (fixed cost or variable cost) tends to increase the operating breakeven point, whereas an increase in the sales price per unit will decrease the operating breakeven point.
Answer: TRUE
Diff: 1
Topic: Breakeven Analysis
Learning Obj.: LG 1
Learning Outcome: F-21
Question Status: Previous Edition
AACSB Tag: Analytic Skills

22) The use of a dollar breakeven point is important when a firm has more than one product, especially when each product is selling at a different price.
Answer: TRUE
Diff: 1
Topic: Breakeven Analysis
Learning Obj.: LG 1
Learning Outcome: F-21
Question Status: Previous Edition
AACSB Tag: Analytic Skills

23) The contribution margin is defined as the percent of each sales dollar that remains after satisfying fixed operating costs.
Answer: FALSE
Diff: 1
Topic: Breakeven Analysis
Learning Obj.: LG 1
Learning Outcome: F-21
Question Status: Previous Edition
AACSB Tag: Analytic Skills

24) The breakeven point in dollars can be computed by dividing the contribution margin into the variable operating costs.
Answer: FALSE
Diff: 1
Topic: Breakeven Analysis
Learning Obj.: LG 1
Learning Outcome: F-21
Question Status: Previous Edition
AACSB Tag: Analytic Skills

25) Due to the difficulty of allocating costs to products in a multiproduct firm, the breakeven model may fail to determine breakeven points for each product line.
Answer: TRUE
Diff: 1
Topic: Breakeven Analysis
Learning Obj.: LG 1
Learning Outcome: F-21
Question Status: Previous Edition
AACSB Tag: Analytic Skills

26) Since the sales price per unit generally decreases with volume and the cost per unit generally increases with volume, the true breakeven point may be different from those obtained using linear revenue and cost functions as assumed in the breakeven analysis.
Answer: TRUE
Diff: 1
Topic: Breakeven Analysis
Learning Obj.: LG 1
Learning Outcome: F-21
Question Status: Previous Edition
AACSB Tag: Analytic Skills

27) One of the limitations of breakeven analysis is its short-term time horizon. A large outlay in the current financial period could significantly raise the firm's breakeven point, while the benefits may occur over a period of years.
Answer: TRUE
Diff: 1
Topic: Breakeven Analysis
Learning Obj.: LG 1
Learning Outcome: F-21
Question Status: Previous Edition
AACSB Tag: Analytic Skills

28) The operating breakeven point can be found by solving for the sales level that just covers total fixed and variable costs.
Answer: TRUE
Diff: 1
Topic: Breakeven Analysis
Learning Obj.: LG 1
Learning Outcome: F-21
Question Status: Previous Edition
AACSB Tag: Analytic Skills

29) Which of the following is true of leverage?
A) It refers to the effects that operating and financial fixed costs have on the returns that shareholders earn.
B) It is associated with risks which are out of the control of managers.
C) It includes the effect of operating fixed costs on the returns of shareholders and not the financial fixed costs.
D) It is used to evaluate the profitability associated with various levels of sales.
Answer: A
Diff: 1
Topic: Leverage
Learning Obj.: LG 1
Learning Outcome: F-21
Question Status: New
AACSB Tag: Analytic Skills

30) ________ results from the use of fixed-cost assets or funds to magnify returns to a firm's owners.
A) Long-term debt
B) Equity
C) Leverage
D) Capital structure
Answer: C
Diff: 1
Topic: Leverage
Learning Obj.: LG 1
Learning Outcome: F-21
Question Status: Previous Edition
AACSB Tag: Analytic Skills

31) The three basic types of leverage are ________.
A) operating, production, and financial
B) operating, production, and total
C) production, financial, and total
D) operating, financial, and total
Answer: D
Diff: 1
Topic: Leverage
Learning Obj.: LG 1
Learning Outcome: F-21
Question Status: Previous Edition
AACSB Tag: Analytic Skills

32) Generally, increases in leverage result in ________ return and ________ risk.
A) decreased; increased
B) decreased; decreased
C) increased; increased
D) increased; decreased
Answer: C
Diff: 1
Topic: Leverage
Learning Obj.: LG 1
Learning Outcome: F-21
Question Status: Revised
AACSB Tag: Analytic Skills

33) ________ refers to the effects that fixed costs have on the returns that shareholders earn.
A) Purchase power parity
B) Leverage
C) Business risk
D) Pecking order theory
Answer: B
Diff: 1
Topic: Leverage
Learning Obj.: LG 1
Learning Outcome: F-21
Question Status: New
AACSB Tag: Analytic Skills

34) ________ analysis is a technique used to assess the returns associated with various cost structures and levels of sales.
A) Time-series
B) Marginal
C) Breakeven
D) Ratio
Answer: C
Diff: 1
Topic: Breakeven Analysis
Learning Obj.: LG 1
Learning Outcome: F-21
Question Status: Previous Edition
AACSB Tag: Analytic Skills

35) Earnings before interest and taxes (EBIT) is a descriptive label for ________.
A) operating profits
B) net profits before taxes
C) earnings per share
D) gross profits
Answer: A
Diff: 1
Topic: Breakeven Analysis
Learning Obj.: LG 1
Learning Outcome: F-21
Question Status: Previous Edition
AACSB Tag: Analytic Skills

36) ________ costs are a function of time, not sales, and are typically contractual.
A) Fixed
B) Semi-variable
C) Variable
D) Operating
Answer: A
Diff: 1
Topic: Breakeven Analysis
Learning Obj.: LG 1
Learning Outcome: F-21
Question Status: Previous Edition
AACSB Tag: Analytic Skills

37) In case of a manufacturing organization, which of the following is a variable cost that varies directly with the sales volume?
A) interest cost
B) dividend cost
C) shipping cost
D) rental cost
Answer: C
Diff: 1
Topic: Breakeven Analysis
Learning Obj.: LG 1
Learning Outcome: F-21
Question Status: New
AACSB Tag: Analytic Skills

38) A firm's ________ is the level of sales necessary to cover all operating costs, i.e., the point at which EBIT equals zero.
A) cash breakeven point
B) financial breakeven point
C) operating breakeven point
D) total breakeven point
Answer: C
Diff: 1
Topic: Breakeven Analysis
Learning Obj.: LG 1
Learning Outcome: F-21
Question Status: Revised
AACSB Tag: Analytic Skills

39) Which of the following is a fixed cost?
A) inventory
B) rent
C) delivery costs
D) direct labor
Answer: B
Diff: 1
Topic: Breakeven Analysis
Learning Obj.: LG 1
Learning Outcome: F-21
Question Status: Revised
AACSB Tag: Analytic Skills

40) ________ costs require the payment of a specified amount in each accounting period.
A) Operating
B) Variable
C) Semi-variable
D) Fixed
Answer: D
Diff: 1
Topic: Breakeven Analysis
Learning Obj.: LG 1
Learning Outcome: F-21
Question Status: Previous Edition
AACSB Tag: Analytic Skills

41) At the operating breakeven point, ________ equals zero.
A) sales revenue
B) fixed operating costs
C) variable operating costs
D) earnings before interest and taxes
Answer: D
Diff: 1
Topic: Breakeven Analysis
Learning Obj.: LG 1
Learning Outcome: F-21
Question Status: Previous Edition
AACSB Tag: Analytic Skills

42) Breakeven analysis is used by a firm ________.
A) to determine the level of operations necessary to cover all fixed operating costs
B) to determine the least cost of producing goods and services
C) to evaluate the profitability associated with various levels of sales
D) to determine the demand of a product
Answer: C
Diff: 1
Topic: Breakeven Analysis
Learning Obj.: LG 1
Learning Outcome: F-21
Question Status: Revised
AACSB Tag: Analytic Skills

43) If a firm's fixed operating costs decrease, the firm's ________.
A) operating breakeven point will decrease
B) operating breakeven point will increase
C) sale price per unit will decrease
D) sale price per unit will increase
Answer: A
Diff: 1
Topic: Breakeven Analysis
Learning Obj.: LG 1
Learning Outcome: F-21
Question Status: Revised
AACSB Tag: Analytic Skills

44) If a firm's variable costs per unit increase,the firm's ________.
A) financial breakeven point will decrease
B) operating breakeven point will increase
C) sale price per unit will decrease
D) fixed costs per unit will increase
Answer: B
Diff: 1
Topic: Breakeven Analysis
Learning Obj.: LG 1
Learning Outcome: F-21
Question Status: Revised
AACSB Tag: Analytic Skills

45) If a firm's sale price per unit decreases, the firm's ________.
A) operating breakeven point will decrease
B) operating breakeven point will increase
C) variable costs per unit will decrease
D) variable costs per unit will increase
Answer: B
Diff: 1
Topic: Breakeven Analysis
Learning Obj.: LG 1
Learning Outcome: F-21
Question Status: Revised
AACSB Tag: Analytic Skills

46) If a firm's fixed financial costs decrease, the firm's operating breakeven point will ________.
A) decrease
B) increase
C) remain unchanged
D) change based on the sale price per unit
Answer: C
Diff: 1
Topic: Breakeven Analysis
Learning Obj.: LG 1
Learning Outcome: F-21
Question Status: Revised
AACSB Tag: Analytic Skills

47) A firm's operating breakeven point is the point at which ________.
A) total operating costs equal total fixed costs
B) total operating costs are zero
C) EBIT is less than sales
D) EBIT is zero
Answer: D
Diff: 1
Topic: Breakeven Analysis
Learning Obj.: LG 1
Learning Outcome: F-21
Question Status: Previous Edition
AACSB Tag: Analytic Skills

48) A firm has fixed operating costs of $525,000. The sales price per unit is $35 and its variable costs per unit is $22.50. The firm's operating breakeven point in units is ________.
A) $23,330
B) $32,000
C) $42,000
D) $52,000
Answer: C
Diff: 1
Topic: Breakeven Analysis
Learning Obj.: LG 1
Learning Outcome: F-21
Question Status: Revised
AACSB Tag: Analytic Skills

49) Carol's Dolls has fixed operating costs of $25,000. Its sale price is $55 per doll, and its variable operating cost is $30 per doll. It sells 3,000 dolls per month. The firm's earnings before interest and taxes is ________.
A) $37,500
B) $55,000
C) $75,000
D) $50,000
Answer: D
Diff: 2
Topic: Breakeven Analysis
Learning Obj.: LG 1
Learning Outcome: F-21
Question Status: New
AACSB Tag: Analytic Skills

50) A major assumption of breakeven analysis and one which causes severe limitations in its use is that ________.
A) fixed costs really are fixed
B) total revenue is nonlinear
C) revenues and operating costs are linear
D) all costs are really semi-variable
Answer: C
Diff: 1
Topic: Breakeven Analysis
Learning Obj.: LG 1
Learning Outcome: F-21
Question Status: Previous Edition
AACSB Tag: Analytic Skills

51) ________ is 100 percent minus total variable operating costs as a percentage of total sales.
A) Profit margin
B) Contribution margin
C) Expense ratio
D) Fixed coverage ratio
Answer: B
Diff: 1
Topic: Breakeven Analysis
Learning Obj.: LG 1
Learning Outcome: F-21
Question Status: Revised
AACSB Tag: Analytic Skills

52) A firm has fixed operating costs of $10,000, the sale price per unit of its product is $25, and its variable cost per unit is $15. The firm's operating breakeven point in units is ________ and its breakeven point in dollars is ________.
A) 1,000; $6,250
B) 400; $10,000
C) 400; $25,000
D) 1,000; $25,000
Answer: D
Diff: 2
Topic: Breakeven Analysis
Learning Obj.: LG 1
Learning Outcome: F-21
Question Status: Previous Edition
AACSB Tag: Analytic Skills

53) A firm has fixed operating costs of $150,000, total sales of $1,500,000, and total variable costs of $1,275,000. The firm's operating breakeven point in dollars is ________.
A) $150,000
B) $176,471
C) $1,000,000
D) $1,425,000
Answer: D
Diff: 1
Topic: Breakeven Analysis
Learning Obj.: LG 1
Learning Outcome: F-21
Question Status: Previous Edition
AACSB Tag: Analytic Skills

54) A firm has fixed operating costs of $253,750, a sales price per unit of $100, and a variable cost per unit of $65. The firm's operating breakeven point in dollars is ________.
A) $725,000
B) $700,000
C) $906,250
D) $390,385
Answer: A
Diff: 1
Topic: Breakeven Analysis
Learning Obj.: LG 1
Learning Outcome: F-21
Question Status: Revised
AACSB Tag: Analytic Skills

55) One function of breakeven analysis is to ________.
A) determine the profit attributable to each stockholder
B) evaluate the effect of leverage on a firm's risks and returns
C) evaluate the profitability of various sales levels
D) determine the amount of financing needed by the firm
Answer: C
Diff: 1
Topic: Breakeven Analysis
Learning Obj.: LG 1
Learning Outcome: F-21
Question Status: Revised
AACSB Tag: Analytic Skills

56) The preferred approach to breakeven analysis for a multiproduct firm is the ________.
A) breakeven point expressed in units
B) breakeven point expressed in dollars
C) cash breakeven point
D) overall breakeven point
Answer: B
Diff: 1
Topic: Breakeven Analysis
Learning Obj.: LG 1
Learning Outcome: F-21
Question Status: Previous Edition
AACSB Tag: Analytic Skills

57) A firm has fixed operating costs of $25,000, a per unit sales price of $5, and a variable cost per unit of $3. What is its operating breakeven point if it targets net operating income of $10,000?
A) 12,500 units
B) 15,000 units
C) 17,500 units
D) 25,000 units
Answer: C
Diff: 2
Topic: Breakeven Analysis
Learning Obj.: LG 1
Learning Outcome: F-21
Question Status: Revised
AACSB Tag: Analytic Skills

58) Tony's Beach T-Shirts has fixed annual operating costs of $75,000. Tony retails his T-shirts for $14.99 each and the variable cost per T-shirt is $4.99. Based on this information, the breakeven sales level in dollars is ________.
A) $125,495
B) $112,425
C) $108,995
D) $110,495
Answer: B
Diff: 1
Topic: Breakeven Analysis
Learning Obj.: LG 1
Learning Outcome: F-21
Question Status: Revised
AACSB Tag: Analytic Skills

59) Tony's Beach T-Shirts has fixed annual operating costs of $75,000. Tony retails his T-shirts for $14.99 each and the variable cost per T-shirt is $4.99. Based on this information, the breakeven sales level in units is ________.
A) 7,500
B) 15,030
C) 5,003
D) 3,754
Answer: A
Diff: 1
Topic: Breakeven Analysis
Learning Obj.: LG 1
Learning Outcome: F-21
Question Status: Revised
AACSB Tag: Analytic Skills

60) Mark must buy four new tires for his car. He is considering buying tires that are $25 a piece more than his regular brand, because the higher priced tires are supposed to increase his miles per gallon by 20%. If the tires are good for 48,000 miles and Mark drives an average of 1,000 miles per month, gas costs $2.50 per gallon over the next 4 years, and Mark's car gets 30 miles to the gallon now (on the old tires), should Mark purchase the more expensive tires?
A) Yes, because Mark will save about $660 dollars in gas over the four years but the new tires will only be $100 more.
B) Yes, because Mark will save about $560 dollars in gas over the four years but the new tires will only be $100 more.
C) No, because Mark will only save about $60 dollars in gas over the four years but the new tires will only be $100 more.
D) No, because Mark will only save about $90 dollars in gas over the four years but the new tires will only be $100 more.
Answer: A
Diff: 1
Topic: Breakeven Analysis
Learning Obj.: LG 1
Learning Outcome: F-21
Question Status: Previous Edition
AACSB Tag: Analytic Skills

13.2 Understand operating, financial, and total leverage and the relationships among them.

1) Operating leverage is defined as the use of fixed operating costs to magnify the effects of changes in sales on a firm's earnings before interest and taxes.
Answer: TRUE
Diff: 1
Topic: Operating Leverage
Learning Obj.: LG 2
Learning Outcome: F-21
Question Status: New
AACSB Tag: Analytic Skills

2) The degree of operating leverage will increase if a firm decides to compensate its sales representatives with a fixed salary and bonus rather than with a pure percent-of-sales commission.
Answer: TRUE
Diff: 1
Topic: Operating Leverage
Learning Obj.: LG 2
Learning Outcome: F-21
Question Status: Previous Edition
AACSB Tag: Analytic Skills

3) Comparison of the degree of operating leverage of two firms is valid only when the base level of sales used for each firm is the same.
Answer: TRUE
Diff: 1
Topic: Operating Leverage
Learning Obj.: LG 2
Learning Outcome: F-21
Question Status: Previous Edition
AACSB Tag: Analytic Skills

4) The degree of operating leverage depends on the base level of sales used as a point of reference. The closer the base sales level used is to the operating breakeven point, the greater the operating leverage.
Answer: TRUE
Diff: 1
Topic: Operating Leverage
Learning Obj.: LG 2
Learning Outcome: F-21
Question Status: Previous Edition
AACSB Tag: Analytic Skills

5) Operating leverage results from the existence of operating costs in a firm's income stream.
Answer: FALSE
Diff: 1
Topic: Operating Leverage
Learning Obj.: LG 2
Learning Outcome: F-21
Question Status: Previous Edition
AACSB Tag: Analytic Skills

6) Operating leverage may be defined as the potential use of fixed operating costs to magnify the effects of changes in sales on a firm's earnings before interest and taxes (EBIT).
Answer: TRUE
Diff: 1
Topic: Operating Leverage
Learning Obj.: LG 2
Learning Outcome: F-21
Question Status: Previous Edition
AACSB Tag: Analytic Skills

7) Operating leverage is present when a firm has fixed operating costs.
Answer: TRUE
Diff: 1
Topic: Operating Leverage
Learning Obj.: LG 2
Learning Outcome: F-21
Question Status: Previous Edition
AACSB Tag: Analytic Skills

8) Whenever the percentage change in earnings before interest and taxes resulting from a given percentage change in sales is greater than the percentage change in sales, operating leverage exists.
Answer: TRUE
Diff: 1
Topic: Operating Leverage
Learning Obj.: LG 2
Learning Outcome: F-21
Question Status: Previous Edition
AACSB Tag: Analytic Skills

9) When a firm has fixed operating costs, operating leverage is present. In that case, an increase in sales results in a more-than-proportional increase in EBIT, and a decrease in sales results in a more-than-proportional decrease in EBIT.
Answer: TRUE
Diff: 1
Topic: Operating Leverage
Learning Obj.: LG 2
Learning Outcome: F-21
Question Status: Previous Edition
AACSB Tag: Analytic Skills

10) Whenever the percentage change in EBIT resulting from a given percentage change in sales is greater than the percentage change in sales, operating leverage exists.
Answer: TRUE
Diff: 1
Topic: Operating Leverage
Learning Obj.: LG 2
Learning Outcome: F-21
Question Status: Previous Edition
AACSB Tag: Analytic Skills

11) The closer the base sales level used is to the operating breakeven point, the smaller the operating leverage.
Answer: FALSE
Diff: 1
Topic: Operating Leverage
Learning Obj.: LG 2
Learning Outcome: F-21
Question Status: Previous Edition
AACSB Tag: Analytic Skills

12) The base level of EBIT must be held constant to compare the financial leverage associated with different levels of fixed financial costs.
Answer: TRUE
Diff: 1
Topic: Financial Leverage
Learning Obj.: LG 2
Learning Outcome: F-21
Question Status: Previous Edition
AACSB Tag: Analytic Skills

13) The effect of financial leverage is such that an increase in a firm's earnings before interest and taxes (EBIT) results in a more than proportional increase in the firm's earnings per share (EPS), while a decrease in the firm's EBIT results in a less than proportional decrease in EPS.
Answer: FALSE
Diff: 1
Topic: Financial Leverage
Learning Obj.: LG 2
Learning Outcome: F-21
Question Status: Previous Edition
AACSB Tag: Analytic Skills

14) Whenever the percentage change in earnings per share (EPS) resulting from a given percentage change in sales is greater than the percentage change in sales, financial leverage exists.
Answer: FALSE
Diff: 1
Topic: Financial Leverage
Learning Obj.: LG 2
Learning Outcome: F-21
Question Status: Previous Edition
AACSB Tag: Analytic Skills

15) Financial leverage results from the presence of variable financial costs in a firm's income stream.
Answer: FALSE
Diff: 1
Topic: Financial Leverage
Learning Obj.: LG 2
Learning Outcome: F-21
Question Status: Previous Edition
AACSB Tag: Analytic Skills

16) Financial leverage may be defined as the potential use of variable financial costs to magnify the effects of changes in earnings before interest and taxes (EBIT) on a firm's earnings per share (EPS).
Answer: FALSE
Diff: 1
Topic: Financial Leverage
Learning Obj.: LG 2
Learning Outcome: F-21
Question Status: Previous Edition
AACSB Tag: Analytic Skills

17) The relationship between operating and financial leverage is additive rather than multiplicative.
Answer: FALSE
Diff: 1
Topic: Total Leverage
Learning Obj.: LG 2
Learning Outcome: F-21
Question Status: Previous Edition
AACSB Tag: Analytic Skills

18) The total leverage measures the combined effect of operating and financial leverage on a firm's risk.
Answer: TRUE
Diff: 1
Topic: Total Leverage
Learning Obj.: LG 2
Learning Outcome: F-21
Question Status: Previous Edition
AACSB Tag: Analytic Skills

19) Total leverage exists whenever the percentage change in earnings per share (EPS) resulting from a given percentage change in sales is greater than the percentage change in sales.
Answer: TRUE
Diff: 1
Topic: Total Leverage
Learning Obj.: LG 2
Learning Outcome: F-21
Question Status: Previous Edition
AACSB Tag: Analytic Skills

20) The base level of sales must be held constant to compare the total leverage associated with different levels of fixed costs.
Answer: TRUE
Diff: 1
Topic: Total Leverage
Learning Obj.: LG 2
Learning Outcome: F-21
Question Status: Previous Edition
AACSB Tag: Analytic Skills

21) With the existence of fixed operating costs, an increase in sales will result in ________ increase in EBIT.
A) a proportional
B) an equal
C) a less than proportional
D) a more than proportional
Answer: D
Diff: 1
Topic: Operating Leverage
Learning Obj.: LG 2
Learning Outcome: F-21
Question Status: Previous Edition
AACSB Tag: Analytic Skills

22) ________ leverage is concerned with the relationship between sales revenues and earnings before interest and taxes.
A) Investing
B) Operating
C) Variable
D) Total
Answer: B
Diff: 1
Topic: Operating Leverage
Learning Obj.: LG 2
Learning Outcome: F-21
Question Status: Previous Edition
AACSB Tag: Analytic Skills

23) ________ is the potential use of fixed operating costs to magnify the effects of changes in sales on earnings before interest and taxes.
A) Financial leverage
B) Operating leverage
C) Operating budget
D) Ratio analysis
Answer: B
Diff: 1
Topic: Operating Leverage
Learning Obj.: LG 2
Learning Outcome: F-21
Question Status: Revised
AACSB Tag: Analytic Skills

24) With the existence of fixed operating costs, a decrease in sales will result in ________ in EBIT.
A) a proportional increase
B) an equal increase
C) a less than proportional decrease
D) a more than proportional decrease
Answer: D
Diff: 1
Topic: Operating Leverage
Learning Obj.: LG 2
Learning Outcome: F-21
Question Status: Previous Edition
AACSB Tag: Analytic Skills

25) A decrease in fixed operating costs will result in ________ in the degree of financial leverage.
A) a decrease
B) an increase
C) no change
D) an undetermined change
Answer: D
Diff: 1
Topic: Operating Leverage
Learning Obj.: LG 2
Learning Outcome: F-21
Question Status: Previous Edition
AACSB Tag: Analytic Skills

26) An increase in fixed operating costs will result in ________.
A) a decrease in the degree of operating leverage
B) an increase in the degree of operating leverage
C) a decrease in the degree of financial leverage
D) an increase in the degree of financial leverage
Answer: B
Diff: 1
Topic: Operating Leverage
Learning Obj.: LG 2
Learning Outcome: F-21
Question Status: Revised
AACSB Tag: Analytic Skills

27) A firm has fixed operating costs of $650,000, a sales price per unit of $20, and a variable cost per unit of $13. At a base sales level of 500,000 units, the firm's degree of operating leverage is ________.
A) 1.07
B) 1.11
C) 1.18
D) 1.23
Answer: D
Diff: 2
Topic: Operating Leverage
Learning Obj.: LG 2
Learning Outcome: F-21
Question Status: Previous Edition
AACSB Tag: Analytic Skills

28) A firm has fixed operating costs of $175,000, total sales revenue of $3,000,000 and total variable costs of $2,250,000. The firm's degree of operating leverage is ________.
A) 0.77
B) 1.30
C) 0.81
D) 4.29
Answer: B
Diff: 2
Topic: Operating Leverage
Learning Obj.: LG 2
Learning Outcome: F-21
Question Status: Previous Edition
AACSB Tag: Analytic Skills

29) As fixed operating costs increase and all other factors are held constant, ________.
A) the degree of operating leverage will increase
B) the degree of operating leverage will decrease
C) the degree of total leverage will decrease
D) the degree of total leverage will increase
Answer: B
Diff: 1
Topic: Operating Leverage
Learning Obj.: LG 2
Learning Outcome: F-21
Question Status: Revised
AACSB Tag: Analytic Skills

30) Operating leverage measures the effect of fixed operating costs on the relationship between ________.
A) sales and EBIT
B) sales and EPS
C) EBIT and EPS
D) EBIT and dividend
Answer: A
Diff: 1
Topic: Operating Leverage
Learning Obj.: LG 2
Learning Outcome: F-21
Question Status: Revised
AACSB Tag: Analytic Skills

31) Financial leverage measures the effect of fixed financial costs on the relationship between ________.
A) sales and EBIT
B) sales and EPS
C) EBIT and EPS
D) EBIT and preference dividend
Answer: C
Diff: 1
Topic: Financial Leverage
Learning Obj.: LG 2
Learning Outcome: F-21
Question Status: Revised
AACSB Tag: Analytic Skills

32) ________ leverage is concerned with the relationship between earnings before interest and taxes and earnings per share.
A) Financial
B) Operating
C) Variable
D) Total
Answer: A
Diff: 1
Topic: Financial Leverage
Learning Obj.: LG 2
Learning Outcome: F-21
Question Status: Previous Edition
AACSB Tag: Analytic Skills

33) In theory, a firm should maintain financial leverage consistent with a capital structure that ________.
A) meets the industry standards
B) meets the investor expectations
C) maximizes the owner's wealth
D) maximizes dividends
Answer: C
Diff: 1
Topic: Financial Leverage
Learning Obj.: LG 2
Learning Outcome: F-21
Question Status: Revised
AACSB Tag: Analytic Skills

34) The degree of financial leverage is the ratio of ________ to percentage change in EBIT.
A) operating profit
B) percentage change in sales
C) percentage change in EPS
D) long-term debt
Answer: C
Diff: 1
Topic: Financial Leverage
Learning Obj.: LG 2
Learning Outcome: F-21
Question Status: New
AACSB Tag: Analytic Skills

35) ________ is the potential use of fixed financial charges to magnify the effects of changes in earnings before interest and taxes on a firm's earnings per share.
A) Financial leverage
B) Operating leverage
C) Total leverage
D) Degree of operating leverage
Answer: A
Diff: 1
Topic: Financial Leverage
Learning Obj.: LG 2
Learning Outcome: F-21
Question Status: Previous Edition
AACSB Tag: Analytic Skills

36) Financial leverage measures the effect of fixed financing costs on the relationship between ________.
A) sales and EBIT
B) sales and EPS
C) EBIT and EPS
D) net income and sales
Answer: C
Diff: 1
Topic: Financial Leverage
Learning Obj.: LG 2
Learning Outcome: F-21
Question Status: Revised
AACSB Tag: Analytic Skills

37) ________ leverage measures the effect of fixed ________ costs on the relationship between EBIT and EPS.
A) Operating; operating
B) Financial; financial
C) Operating; financial
D) Financial; operating
Answer: B
Diff: 1
Topic: Financial Leverage
Learning Obj.: LG 2
Learning Outcome: F-21
Question Status: New
AACSB Tag: Analytic Skills

38) Fixed financial charges include ________.
A) common stock dividends and bond interest expense
B) common stock dividends and preferred stock dividends
C) bond interest expense and preferred stock dividends
D) stock repurchase expense
Answer: C
Diff: 1
Topic: Financial Leverage
Learning Obj.: LG 2
Learning Outcome: F-21
Question Status: Previous Edition
AACSB Tag: Analytic Skills

39) Higher financial leverage causes ________ to increase more for a given increase in ________.
A) EBIT; sales
B) EPS; sales
C) EPS; EBIT
D) EBIT; EPS
Answer: C
Diff: 1
Topic: Financial Leverage
Learning Obj.: LG 2
Learning Outcome: F-21
Question Status: Previous Edition
AACSB Tag: Analytic Skills

40) ________ is the potential use of fixed costs to magnify the effect of changes in sales on the firm's earnings per share.
A) Investing leverage
B) Total leverage
C) Operating leverage
D) Financial leverage
Answer: B
Diff: 1
Topic: Financial Leverage
Learning Obj.: LG 2
Learning Outcome: F-21
Question Status: Revised
AACSB Tag: Analytic Skills

41) Through the effects of financial leverage, when EBIT increases, ________.
A) earnings per share will increase
B) earnings per share will decrease
C) fixed operating costs will decrease
D) fixed operating costs will increase
Answer: A
Diff: 1
Topic: Financial Leverage
Learning Obj.: LG 2
Learning Outcome: F-21
Question Status: Revised
AACSB Tag: Analytic Skills

42) A firm has EBIT of $375,000, interest expense of $75,000, preferred dividends of $6,000 and a tax rate of 40 percent. The firm's degree of financial leverage at a base EBIT level of $375,000 is ________.
A) 0.97
B) 1.29
C) 1.27
D) 1.09
Answer: B
Diff: 2
Topic: Financial Leverage
Learning Obj.: LG 2
Learning Outcome: F-21
Question Status: Previous Edition
AACSB Tag: Analytic Skills

43) ________ leverage is concerned with the relationship between sales revenue and earnings per share.
A) Financial
B) Operating
C) Variable
D) Total
Answer: D
Diff: 1
Topic: Total Leverage
Learning Obj.: LG 2
Learning Outcome: F-21
Question Status: Previous Edition
AACSB Tag: Analytic Skills

44) At a base sales level of $400,000, a firm has a degree of operating leverage of 2 and a degree of financial leverage of 1.5. The firm's degree of total leverage is ________.
A) 3.5
B) 3.0
C) 0.5
D) 1.3
Answer: B
Diff: 1
Topic: Total Leverage
Learning Obj.: LG 2
Learning Outcome: F-21
Question Status: Previous Edition
AACSB Tag: Analytic Skills

45) Because the degree of total leverage is multiplicative and not additive, when a firm has very high operating leverage it can moderate its total risk by ________.
A) increasing sales
B) using a higher level of financial leverage
C) increasing EBIT
D) using a lower level of financial leverage
Answer: D
Diff: 1
Topic: Total Leverage
Learning Obj.: LG 2
Learning Outcome: F-21
Question Status: Revised
AACSB Tag: Analytic Skills

46) Total leverage measures the effect of fixed costs on the relationship between ________.
A) sales and EBIT
B) sales and EPS
C) EBIT and EPS
D) EBIT and dividend
Answer: B
Diff: 1
Topic: Total Leverage
Learning Obj.: LG 2
Learning Outcome: F-21
Question Status: Revised
AACSB Tag: Analytic Skills

47) Bamboo manufacturing sells its finished product for an average of $35 per unit with a variable cost per unit of $21. The company has fixed operating costs of $1,050,000.
(a) Calculate the firm's operating breakeven point in units.
(b) Calculate the firm's operating breakeven point in dollars.
(c) Using 100,000 units as a base, what is the firm's degree of operating leverage?
Answer:
(a) $Q = \dfrac{FC}{P - VC} = \dfrac{\$1{,}050{,}000}{\$35 - \$21} = 75{,}000$ units

(b) $D = \dfrac{FC}{(1 - TVC/TR)} = \dfrac{\$1{,}050{,}000}{(1 - \$21/\$35)} = \$2{,}625{,}000$

(c) DOL at base sales level of 100,000 units $= \dfrac{Q \times (P - VC)}{Q \times (P - VC) - FC}$

$$= \frac{100{,}000 \times (\$35 - \$21)}{100{,}000 \times (\$35 - \$21) - \$1{,}050{,}000}$$

$$= 4.0$$

Diff: 2
Topic: Operating Leverage
Learning Obj.: LG 2
Learning Outcome: F-21
Question Status: Previous Edition
AACSB Tag: Analytic Skills

48) Beijing Berings is considering purchasing a small firm in the same line of business. The purchase would be financed by the sale of common stock or a bond issue. The financial manager needs to evaluate how the two alternative financing plans will affect the earnings potential of the firm. Total financing required is $4.5 million. The firm currently has $20,000,000 of 12 percent bonds and 600,000 common shares outstanding. The firm can arrange financing of the $4.5 million through a 14 percent bond issue or the sale of 100,000 shares of common stock. The firm has a 40 percent tax rate.
(a) What is the degree of financial leverage for each plan at $7,000,000 of EBIT?
(b) What is the financial breakeven point for each plan?
Answer:
(a) DFL at base level EBIT (Bond Issue) = $\frac{\$7{,}000{,}000}{\$7{,}000{,}000 - \$3{,}030{,}000} = 1.76$

DFL at base level EBIT (Stock Issue) = $\frac{\$7{,}000{,}000}{\$7{,}000{,}000 - \$2{,}400{,}000} = 1.52$

(b) Financial Breakeven Point (Bond Issue) = ($20,000,000 × 12%) + ($4,500,000 × 14%)= $3,030,000
Financial Breakeven Point (Stock Issue) = ($20,000,000 × 12%) = $2,400,000
Diff: 2
Topic: Financial Leverage
Learning Obj.: LG 2
Learning Outcome: F-21
Question Status: Previous Edition
AACSB Tag: Analytic Skills

49) Yongman Electronics has decided to invest $10,000,000 in a new headquarters and needs to determine the best way to finance the construction. The firm currently has $50,000,000 of 10 percent bonds and 4,000,000 common shares outstanding. The firm can obtain the $10,000,000 of financing through a 10 percent bond issue or the sale of 1,000,000 shares of common stock. The firm has a 40 percent tax rate.
(a) What is the degree of financial leverage for each plan at $25,000,000 of EBIT?
(b) What is the financial breakeven point for each plan?
Answer:
(a) Bond issue interest = $10,000,000 × (0.10) = $1,000,000
Current interest = $50,000,000 × (0.10) = $5,000,000
Total interest = $6,000,000

$$\text{DFL at base level EBIT (Bond Issue)} = \frac{\$25{,}000{,}000}{\$25{,}000{,}000 - \$6{,}000{,}000} = 1.32$$

$$\text{DFL at base level EBIT (stock Issue)} = \frac{\$25{,}000{,}000}{\$25{,}000{,}000 - \$5{,}000{,}000} = 1.25$$

(b) Financial Breakeven Point (Bond Issue) = ($50,000,000 × 10%) + ($10,000,000 × 10%) = $6,000,000
Financial Breakeven Point (Stock Issue) = ($50,000,000 × 10%) = $5,000,000
Diff: 2
Topic: Financial Leverage
Learning Obj.: LG 2
Learning Outcome: F-21
Question Status: Previous Edition
AACSB Tag: Analytic Skills

50) China America Manufacturing is evaluating two different operating structures which are described below. The firm has annual interest expense of $250, common shares outstanding of 1,000, and a tax rate of 40 percent.

	Fixed Costs	Price per Unit	Variable Cost per Unit
operating structure 1:	$500	$1	$0.75
operating structure 2:	$1,200	$1	$0.70

(a) For each operating structure, calculate

(a1) EBIT and EPS at 10,000, 20,000, and 30,000 units.

(a2) the degree of operating leverage (DOL) and degree of total leverage (DTL) using 20,000 units as a base sales level.

(a3) the operating breakeven point in units.

(b) Which operating structure has greater operating leverage and business risk?

(c) If China America projects sales of 20,000 units, which operating structure is recommended?

Answer:

(a1)

	EBIT			EPS		
Operating Structure	10,000	20,000	30,000	10,000	20,000	30,000
#1	$2,000	$4,500	$7,000	$1.05	$2.55	$4.05
#2	1,800	4,800	7,800	0.93	2.73	4.53

(a2) and (a3)

Operating Structure	DOL	DTL	Operating Breakeven Point in Units
#1	1.11	1.18	2,000 units
#2	1.25	1.32	4,000 units

(b) Operating structure 2 has greater fixed costs, greater operating leverage, and greater business risk than operating structure 1.

(c) If sales are projected at 20,000 units, China America Manufacturing should choose operating structure 2 because it results in a higher EBIT and EPS for the firm. Operating structure 2 has a higher operating breakeven point, but with sales estimated at 20,000 units versus a breakeven point of 4,000 units, the firm should take advantage of the added leverage.

Diff: 2

Topic: Total Leverage

Learning Obj.: LG 2

Learning Outcome: F-21

Question Status: Previous Edition

AACSB Tag: Analytic Skills

13.3 Describe the types of capital, external assessment of capital structure, the capital structure of non-U.S. firms, and capital structure theory.

1) A firm's capital structure is the mix of short-term liabilities and long-term debt.
Answer: FALSE
Diff: 1
Topic: The Firm's Capital Structure
Learning Obj.: LG 3
Learning Outcome: F-21
Question Status: Revised
AACSB Tag: Analytic Skills

2) Poor capital structure decisions can result in a high cost of capital, thereby making some unacceptable investments acceptable.
Answer: FALSE
Diff: 1
Topic: The Firm's Capital Structure
Learning Obj.: LG 3
Learning Outcome: F-21
Question Status: Previous Edition
AACSB Tag: Analytic Skills

3) The relative inexpensiveness of debt capital is due to the fact that the lenders take the least risk among the long-term contributors of capital.
Answer: TRUE
Diff: 1
Topic: Types of Capital
Learning Obj.: LG 3
Learning Outcome: F-21
Question Status: Revised
AACSB Tag: Analytic Skills

4) Debt capital is less risky than equity capital because a firm is legally obligated to pay interest to bondholders but they are not legally obligated to pay dividends to preferred or common stockholders.
Answer: TRUE
Diff: 1
Topic: Types of Capital
Learning Obj.: LG 3
Learning Outcome: F-21
Question Status: Revised
AACSB Tag: Analytic Skills

5) Due to its secondary position relative to equity, suppliers of debt capital face greater risk and therefore must be compensated with higher expected returns than suppliers of equity capital.
Answer: FALSE
Diff: 1
Topic: Types of Capital
Learning Obj.: LG 3
Learning Outcome: F-21
Question Status: Previous Edition
AACSB Tag: Analytic Skills

6) All items on the right-hand side of a firm's balance sheet, excluding current liabilities are sources of capital.
Answer: TRUE
Diff: 1
Topic: Types of Capital
Learning Obj.: LG 3
Learning Outcome: F-21
Question Status: Revised
AACSB Tag: Analytic Skills

7) Generally, the greater a firm's times interest earned ratio, the less able it is to meet payments as they come due.
Answer: FALSE
Diff: 1
Topic: External Assessment of Capital Structure
Learning Obj.: LG 3
Learning Outcome: F-21
Question Status: New
AACSB Tag: Analytic Skills

8) A firm's capital structure can significantly affect the firm's value by affecting its risk and return.
Answer: TRUE
Diff: 1
Topic: External Assessment of Capital Structure
Learning Obj.: LG 3
Learning Outcome: F-21
Question Status: Previous Edition
AACSB Tag: Analytic Skills

9) In general, low times interest earned ratio and fixed-payment coverage ratio are associated with a high degree of financial leverage.
Answer: TRUE
Diff: 1
Topic: External Assessment of Capital Structure
Learning Obj.: LG 3
Learning Outcome: F-21
Question Status: Revised
AACSB Tag: Analytic Skills

10) The probability that a firm will become bankrupt is largely dependent on its level of both business and financial risk.
Answer: TRUE
Diff: 1
Topic: Capital Structure Theory
Learning Obj.: LG 3
Learning Outcome: F-21
Question Status: Previous Edition
AACSB Tag: Analytic Skills

11) Holding all other factors constant, a firm that is subject to a greater level of business risk should employ more total leverage than an otherwise equivalent firm that is subject to a lesser level of business risk.
Answer: FALSE
Diff: 1
Topic: Capital Structure Theory
Learning Obj.: LG 3
Learning Outcome: F-21
Question Status: Previous Edition
AACSB Tag: Analytic Skills

12) In general, the greater a firm's operating leverage, the higher its business risk.
Answer: TRUE
Diff: 1
Topic: Capital Structure Theory
Learning Obj.: LG 3
Learning Outcome: F-21
Question Status: Previous Edition
AACSB Tag: Analytic Skills

13) Business risk is the risk to a firm of being unable to cover operating costs.
Answer: TRUE
Diff: 1
Topic: Capital Structure Theory
Learning Obj.: LG 3
Learning Outcome: F-21
Question Status: Previous Edition
AACSB Tag: Analytic Skills

14) Financial risk is the risk to a firm of being unable to cover operating costs.
Answer: TRUE
Diff: 1
Topic: Capital Structure Theory
Learning Obj.: LG 3
Learning Outcome: F-21
Question Status: Previous Edition
AACSB Tag: Analytic Skills

15) Business risk is the risk to the firm of being unable to cover required financial obligations.
Answer: FALSE
Diff: 1
Topic: Capital Structure Theory
Learning Obj.: LG 3
Learning Outcome: F-21
Question Status: Revised
AACSB Tag: Analytic Skills

16) The more fixed cost financing a firm has in its capital structure, the greater is its financial leverage and risk.
Answer: TRUE
Diff: 1
Topic: Capital Structure Theory
Learning Obj.: LG 3
Learning Outcome: F-21
Question Status: Revised
AACSB Tag: Analytic Skills

17) Asymmetric information results when managers of a firm have more information about the firm's operations and future prospects than investors have.
Answer: TRUE
Diff: 1
Topic: Capital Structure Theory
Learning Obj.: LG 3
Learning Outcome: F-21
Question Status: Revised
AACSB Tag: Analytic Skills

18) In general, non-U.S. companies have much higher debt ratios than their U.S. counterparts because financial markets are much more developed in the United States than elsewhere.
Answer: TRUE
Diff: 1
Topic: Capital Structure of Non—U.S. Firms
Learning Obj.: LG 3
Learning Outcome: F-21
Question Status: Revised
AACSB Tag: Analytic Skills

19) Effective capital structure decisions can lower the cost of capital, resulting in higher NPVs and more acceptable projects, thereby increasing the value of a firm.
Answer: TRUE
Diff: 1
Topic: The Firm's Capital Structure
Learning Obj.: LG 3
Learning Outcome: F-21
Question Status: Previous Edition
AACSB Tag: Analytic Skills

20) Pecking order is a hierarchy of financing beginning with retained earnings, followed by debt financing, and finally external equity financing.
Answer: TRUE
Diff: 1
Topic: Capital Structure Theory
Learning Obj.: LG 3
Learning Outcome: F-21
Question Status: Previous Edition
AACSB Tag: Analytic Skills

21) A shift toward more fixed costs increases business risk, which in turn causes earnings before interest and taxes to increase by less for a given increase in sales.
Answer: FALSE
Diff: 1
Topic: Capital Structure Theory
Learning Obj.: LG 3
Learning Outcome: F-21
Question Status: Previous Edition
AACSB Tag: Analytic Skills

22) When considering fixed operating cost increases, a financial manager must weigh the increased financial risk associated with greater operating leverage against the expected increase in returns.
Answer: FALSE
Diff: 1
Topic: Capital Structure Theory
Learning Obj.: LG 3
Learning Outcome: F-21
Question Status: Previous Edition
AACSB Tag: Analytic Skills

23) Because of the extensive research conducted in recent years in the area of capital structure theory, it is now possible for financial managers to pinpoint with great accuracy a firm's optimal capital structure.
Answer: FALSE
Diff: 1
Topic: Capital Structure Theory
Learning Obj.: LG 3
Learning Outcome: F-21
Question Status: Previous Edition
AACSB Tag: Analytic Skills

24) Despite the extensive research conducted in recent years in the area of capital structure theory, it is not yet possible to provide financial managers with a specified methodology for use in determining a firm's optimal capital structure.
Answer: TRUE
Diff: 1
Topic: Capital Structure Theory
Learning Obj.: LG 3
Learning Outcome: F-21
Question Status: Previous Edition
AACSB Tag: Analytic Skills

25) In general, a firm's theoretical optimal capital structure is that which balances the tax benefits of debt financing against the increase probability of bankruptcy that result from its use.
Answer: TRUE
Diff: 1
Topic: Capital Structure Theory
Learning Obj.: LG 3
Learning Outcome: F-21
Question Status: Previous Edition
AACSB Tag: Analytic Skills

26) In general, a firm's theoretical optimal capital structure is that which balances the tax benefits of equity financing against the increase probability of bankruptcy that results from its use.
Answer: FALSE
Diff: 1
Topic: Capital Structure Theory
Learning Obj.: LG 3
Learning Outcome: F-21
Question Status: Previous Edition
AACSB Tag: Analytic Skills

27) The pecking order explanation of capital structure states that a hierarchy of financing exists for firms, in which retained earnings are employed first, followed by debt financing and finally by external equity financing.
Answer: TRUE
Diff: 1
Topic: Capital Structure Theory
Learning Obj.: LG 3
Learning Outcome: F-21
Question Status: Previous Edition
AACSB Tag: Analytic Skills

28) The pecking order explanation of capital structure states that a hierarchy of financing exists for firms, in which new external debt financing is employed first, followed by retained earnings and finally by external equity financing.
Answer: FALSE
Diff: 1
Topic: Capital Structure Theory
Learning Obj.: LG 3
Learning Outcome: F-21
Question Status: Previous Edition
AACSB Tag: Analytic Skills

29) The asymmetric information explanation of capital structure suggests that firms will issue new equity only when the managers believe the firm's stock is overvalued; as a result, issuing new equity is considered a negative signal that will result in a decline in share price.
Answer: TRUE
Diff: 1
Topic: Capital Structure Theory
Learning Obj.: LG 3
Learning Outcome: F-21
Question Status: Previous Edition
AACSB Tag: Analytic Skills

30) The asymmetric information explanation of capital structure suggests that firms will issue new debt only when the managers believe the firm's stock is overvalued; as a result, issuing new debt is considered a negative signal that will result in a decline in share price.
Answer: FALSE
Diff: 1
Topic: Capital Structure Theory
Learning Obj.: LG 3
Learning Outcome: F-21
Question Status: Previous Edition
AACSB Tag: Analytic Skills

31) Holding all other factors constant, a firm that is subject to a greater level of business risk should employ less operating leverage than an otherwise equivalent firm that is subject to a lesser level of business risk.
Answer: TRUE
Diff: 1
Topic: Capital Structure Theory
Learning Obj.: LG 3
Learning Outcome: F-21
Question Status: Previous Edition
AACSB Tag: Analytic Skills

32) Holding all other factors constant, a firm that is subject to a greater level of business risk should employ more operating leverage than an otherwise equivalent firm that is subject to a lesser level of business risk.
Answer: FALSE
Diff: 1
Topic: Capital Structure Theory
Learning Obj.: LG 3
Learning Outcome: F-21
Question Status: Previous Edition
AACSB Tag: Analytic Skills

33) Holding all other factors constant, a firm that is subject to a greater level of business risk should employ less financial leverage than an otherwise equivalent firm that is subject to a lesser level of business risk.
Answer: TRUE
Diff: 1
Topic: Capital Structure Theory
Learning Obj.: LG 3
Learning Outcome: F-21
Question Status: Previous Edition
AACSB Tag: Analytic Skills

34) Holding all other factors constant, a firm that is subject to a greater level of business risk should employ more financial leverage than an otherwise equivalent firm that is subject to a lesser level of business risk.
Answer: FALSE
Diff: 1
Topic: Capital Structure Theory
Learning Obj.: LG 3
Learning Outcome: F-21
Question Status: Previous Edition
AACSB Tag: Analytic Skills

35) Holding all other factors constant, a firm that is subject to a greater level of business risk should employ less total leverage than an otherwise equivalent firm that is subject to a lesser level of business risk.
Answer: TRUE
Diff: 1
Topic: Capital Structure Theory
Learning Obj.: LG 3
Learning Outcome: F-21
Question Status: Previous Edition
AACSB Tag: Analytic Skills

36) A firm's ________ is the mix of long-term debt and equity utilized by the firm, which may significantly affect its value by affecting return and risk.
A) dividend policy
B) capital budget
C) capital structure
D) working capital
Answer: C
Diff: 1
Topic: The Firm's Capital Structure
Learning Obj.: LG 3
Learning Outcome: F-21
Question Status: Previous Edition
AACSB Tag: Analytic Skills

37) The lower risk nature of long-term debt in a firm's capital structure is due to the fact that ________.
A) the debt holders are the true owners of the firm
B) equity capital has a fixed return
C) creditors have a higher position in the priority of claims
D) dividend payments are tax-deductible
Answer: C
Diff: 1
Topic: The Firm's Capital Structure
Learning Obj.: LG 3
Learning Outcome: F-21
Question Status: Revised
AACSB Tag: Analytic Skills

38) Which of the following is a reason why equity capital is considered riskier than debt capital?
A) Equity capital has a higher priority claim against assets and earnings.
B) Equity capital requires regular periodic payments in the form of dividends.
C) Equity capital expects dividend payments which are not tax-deductible.
D) Equity capital remains invested in a firm indefinitely.
Answer: D
Diff: 1
Topic: The Firm's Capital Structure
Learning Obj.: LG 3
Learning Outcome: F-21
Question Status: New
AACSB Tag: Analytic Skills

39) The inexpensive nature of long-term debt in a firm's capital structure is due to the fact that ________.
A) the debt holders are the true owners of the firm
B) equity capital has a fixed return
C) long-term debt has a fixed return and a maturity date
D) dividend payments are tax-deductible
Answer: C
Diff: 1
Topic: The Firm's Capital Structure
Learning Obj.: LG 3
Learning Outcome: F-21
Question Status: Revised
AACSB Tag: Analytic Skills

40) The inexpensive nature of long-term debt in a firm's capital structure is due to the fact that ________.
A) the equity holders are the true owners of the firm
B) equity capital has a fixed return
C) creditors have a higher position in the priority of claims
D) dividend payments are tax-deductible
Answer: C
Diff: 1
Topic: The Firm's Capital Structure
Learning Obj.: LG 3
Learning Outcome: F-21
Question Status: Revised
AACSB Tag: Analytic Skills

41) The inexpensive nature of long-term debt in a firm's capital structure is due to the fact that ________.
A) the equity holders are the true owners of the firm
B) equity capital has a fixed return
C) interest payments are tax-deductible
D) equity holders have a higher position in the priority of claims
Answer: C
Diff: 1
Topic: The Firm's Capital Structure
Learning Obj.: LG 3
Learning Outcome: F-21
Question Status: Revised
AACSB Tag: Analytic Skills

42) Which of the following is a basic source of capital for a firm ?
A) short-term debt
B) discounts from suppliers
C) current liabilities
D) common stock
Answer: D
Diff: 1
Topic: Types of Capital
Learning Obj.: LG 3
Learning Outcome: F-21
Question Status: Revised
AACSB Tag: Analytic Skills

43) Which of the following affects business risk?
A) revenue stability
B) financial leases
C) operating leverage
D) preferred stock
Answer: A
Diff: 1
Topic: Capital Structure Theory
Learning Obj.: LG 3
Learning Outcome: F-21
Question Status: Revised
AACSB Tag: Analytic Skills

44) A decrease in fixed financial costs will result in a(n)________.
A) increase in financial risk
B) decrease in financial risk
C) increase in operating leverage
D) decrease in operating leverage
Answer: B
Diff: 1
Topic: Capital Structure Theory
Learning Obj.: LG 3
Learning Outcome: F-21
Question Status: Revised
AACSB Tag: Analytic Skills

45) As debt is substituted for equity in the capital structure and the debt ratio increases, the behavior of the overall cost of capital is partially explained by ________.
A) the tax-deductibility of interest payments
B) the increase in the number of common shares outstanding
C) the reduction in risk as perceived by the common shareholders
D) the decrease in the cost of equity
Answer: A
Diff: 1
Topic: Capital Structure Theory
Learning Obj.: LG 3
Learning Outcome: F-21
Question Status: Previous Edition
AACSB Tag: Analytic Skills

46) Which of the following is the correct order in which corporations generally raise funds to enhance the wealth of stockholders and to send positive signals to the market?
A) retained earnings, equity, debt
B) retained earnings, debt, equity
C) debt, retained earnings, equity
D) equity, retained earnings, debt
Answer: B
Diff: 1
Topic: Capital Structure Theory
Learning Obj.: LG 3
Learning Outcome: F-21
Question Status: Revised
AACSB Tag: Analytic Skills

47) ________ is the risk of being unable to cover financial obligations of a firm.
A) Systematic risk
B) Business risk
C) Financial risk
D) Diversifiable risk
Answer: C
Diff: 1
Topic: Capital Structure Theory
Learning Obj.: LG 3
Learning Outcome: F-21
Question Status: Revised
AACSB Tag: Analytic Skills

48) ________ is the risk of being unable to cover operating costs of a firm.
A) Systematic risk
B) Business risk
C) Financial risk
D) Diversifiable risk
Answer: B
Diff: 1
Topic: Capital Structure Theory
Learning Obj.: LG 3
Learning Outcome: F-21
Question Status: Revised
AACSB Tag: Analytic Skills

49) Which of the following affects business risk?
A) operating leverage
B) interest rate stability
C) preferred stock
D) financial lease
Answer: B
Diff: 1
Topic: Capital Structure Theory
Learning Obj.: LG 3
Learning Outcome: F-21
Question Status: Revised
AACSB Tag: Analytic Skills

50) Revenue stability affects ________.
A) dividend risk
B) maturity risk
C) business risk
D) interest rate risk
Answer: C
Diff: 1
Topic: Capital Structure Theory
Learning Obj.: LG 3
Learning Outcome: F-21
Question Status: Revised
AACSB Tag: Analytic Skills

51) Which of the following is a difference between debt and equity capital?
A) Debt capital does not require periodic payments, whereas equity capital requires period payments.
B) Debt capital requires returns in proportion to profits, whereas equity capital requires a fixed rate of return.
C) Debt capital provides a tax shield, whereas equity capital does not provide a tax shield.
D) Debt capital affects operating leverage, whereas equity capital affects financial leverage.
Answer: C
Diff: 1
Topic: Capital Structure Theory
Learning Obj.: LG 3
Learning Outcome: F-21
Question Status: New
AACSB Tag: Analytic Skills

52) Which of the following is a difference between debt and equity capital?
A) Debt capital does not require periodic payments, whereas equity capital requires period payments.
B) Debt capital requires a fixed rate of return, whereas equity capital requires returns in proportion to profits.
C) Debt capital does not provides a tax shield, whereas equity capital provides a tax shield.
D) Debt capital affects operating leverage, whereas equity capital affects financial leverage.
Answer: B
Diff: 1
Topic: Capital Structure Theory
Learning Obj.: LG 3
Learning Outcome: F-21
Question Status: New
AACSB Tag: Analytic Skills

53) After satisfying obligations to creditors, the government, and preferred stockholders, any remaining earnings will most likely be allocated to ________.
A) common shareholders as cash dividends
B) common shareholders as stock dividends
C) other firms requiring capital
D) pay future preferred dividends
Answer: A
Diff: 1
Topic: Capital Structure Theory
Learning Obj.: LG 3
Learning Outcome: F-21
Question Status: Revised
AACSB Tag: Analytic Skills

54) The cost of debt financing results from ________.
A) the decreased probability of bankruptcy caused by debt obligations
B) the risk–return trade-off associated with ownership of a firm
C) the costs associated with lenders having less information about a firm's prospects than investors and managers
D) the agency costs of the lenders' monitoring and controlling a firm's actions
Answer: D
Diff: 1
Topic: Capital Structure Theory
Learning Obj.: LG 3
Learning Outcome: F-21
Question Status: Revised
AACSB Tag: Analytic Skills

55) A corporation borrows $1,000,000 at 10 percent annual rate of interest. The firm has a 40 percent tax rate. The yearly, after-tax cost of this debt is ________.
A) $40,000
B) $60,000
C) $100,000
D) $166,667
Answer: B
Diff: 1
Topic: Capital Structure Theory
Learning Obj.: LG 3
Learning Outcome: F-21
Question Status: Previous Edition
AACSB Tag: Analytic Skills

56) A corporation has $5,000,000 of 8 percent preferred stock outstanding and a 40 percent tax rate. The after-tax cost of the preferred stock is ________.
A) $400,000
B) $240,000
C) $666,667
D) $160,000
Answer: A
Diff: 1
Topic: Capital Structure Theory
Learning Obj.: LG 3
Learning Outcome: F-21
Question Status: Previous Edition
AACSB Tag: Analytic Skills

57) A corporation has $10,000,000 of 10 percent preferred stock outstanding and a 40 percent tax rate. The amount of earnings before interest and taxes (EBIT) required to pay the preferred dividends is ________.
A) $1,000,000
B) $400,000
C) $600,000
D) $1,666,667
Answer: D
Diff: 1
Topic: Capital Structure Theory
Learning Obj.: LG 3
Learning Outcome: F-21
Question Status: Previous Edition
AACSB Tag: Analytic Skills

58) A corporation has $5,000,000 of 10 percent bonds and $3,000,000 of 12 percent preferred stock outstanding. The firm's financial breakeven (assuming a 40 percent tax rate) is ________.
A) $860,000
B) $716,000
C) $1,100,000
D) $1,400,000
Answer: C
Diff: 1
Topic: Capital Structure Theory
Learning Obj.: LG 3
Learning Outcome: F-21
Question Status: Previous Edition
AACSB Tag: Analytic Skills

59) The conflict resulting from a manager's desire to increase a firm's risk without increasing current borrowing costs and lenders' desire to limit lending is one effect of the ________ problem.
A) agency
B) leverage
C) capital
D) variable cost
Answer: A
Diff: 1
Topic: Capital Structure Theory
Learning Obj.: LG 3
Learning Outcome: F-21
Question Status: Previous Edition
AACSB Tag: Analytic Skills

60) Operating and financial constraints placed on a corporation by loan provision are ________.
A) agency costs to lenders
B) agency costs to a firm
C) necessary to regulate ownership of a firm
D) necessary to control the risk of a firm
Answer: B
Diff: 1
Topic: Capital Structure Theory
Learning Obj.: LG 3
Learning Outcome: F-21
Question Status: Revised
AACSB Tag: Analytic Skills

61) The risk of the debt capital is less than that of other long-term contributors of capital because ________.
A) they have a lower priority of claim against any earnings or assets available for payment
B) they have the stockholders' personal assurance for all future interest payments
C) there is no interest rate risk as the interest rate is predetermined
D) the tax-deductibility of interest payments lowers the debt cost to a firm substantially
Answer: D
Diff: 1
Topic: Capital Structure Theory
Learning Obj.: LG 3
Learning Outcome: F-21
Question Status: New
AACSB Tag: Analytic Skills

62) Management has just discovered an excellent investment for which it needs additional funding. Relative to the discussion on asymmetric information, the firm should ________.
A) finance with new common stock if management believes the firm is undervalued
B) finance with debt if management believes the firm is undervalued
C) finance with debt if management believes the firm is overvalued
D) finance with preferred stock if the firm is at value
Answer: B
Diff: 1
Topic: Capital Structure Theory
Learning Obj.: LG 3
Learning Outcome: F-21
Question Status: Previous Edition
AACSB Tag: Reflective Thinking Skills

13.4 Explain the optimal capital structure using a graphical view of the firm's cost-of-capital functions and a zero-growth valuation model.

1) Minimizing the weighted average cost of capital allows management to undertake a larger number of profitable projects, thereby further increasing the value of a firm.
Answer: TRUE
Diff: 1
Topic: Optimal Capital Structure
Learning Obj.: LG 4
Learning Outcome: F-21
Question Status: Previous Edition
AACSB Tag: Analytic Skills

2) Optimal capital structure is the capital structure at which the weighted average cost of capital is minimized, thereby maximizing a firm's value.
Answer: TRUE
Diff: 1
Topic: Optimal Capital Structure
Learning Obj.: LG 4
Learning Outcome: F-21
Question Status: Previous Edition
AACSB Tag: Analytic Skills

3) An increase in fixed operating and financial cost results in an increase in risk, since the firm will have to achieve a higher level of sales just to break even.
Answer: TRUE
Diff: 1
Topic: Optimal Capital Structure
Learning Obj.: LG 4
Learning Outcome: F-21
Question Status: Previous Edition
AACSB Tag: Analytic Skills

4) The cost of equity is greater than the cost of debt and increases with increasing financial leverage, but generally less rapidly than the cost of debt.
Answer: FALSE
Diff: 1
Topic: Optimal Capital Structure
Learning Obj.: LG 4
Learning Outcome: F-21
Question Status: Previous Edition
AACSB Tag: Analytic Skills

5) The cost of equity increases with increasing financial leverage in order to compensate the stockholders for the higher degree of financial risk.
Answer: TRUE
Diff: 1
Topic: Optimal Capital Structure
Learning Obj.: LG 4
Learning Outcome: F-21
Question Status: Previous Edition
AACSB Tag: Analytic Skills

6) As financial leverage increases, the cost of debt initially remains constant and then rises, while the cost of equity always rises.
Answer: TRUE
Diff: 1
Topic: Optimal Capital Structure
Learning Obj.: LG 4
Learning Outcome: F-21
Question Status: Previous Edition
AACSB Tag: Analytic Skills

7) If we assume that EBIT is constant, the value of a firm is maximized by minimizing the weighted average cost of capital.
Answer: TRUE
Diff: 1
Topic: Optimal Capital Structure
Learning Obj.: LG 4
Learning Outcome: F-21
Question Status: Previous Edition
AACSB Tag: Analytic Skills

8) In theory, a firm's optimal capital structure is that which minimized the firm's overall cost of capital resulting in a maximization of the market value of a firm.
Answer: TRUE
Diff: 1
Topic: Optimal Capital Structure
Learning Obj.: LG 4
Learning Outcome: F-21
Question Status: Previous Edition
AACSB Tag: Analytic Skills

9) The overriding objective of the capital structure decision should be to choose the level of debt that results in the largest possible share price.
Answer: TRUE
Diff: 1
Topic: Optimal Capital Structure
Learning Obj.: LG 4
Learning Outcome: F-21
Question Status: Previous Edition
AACSB Tag: Analytic Skills

10) The optimal capital structure is the one that balances ________.
A) return and risk factors in order to maximize profits
B) return and risk factors in order to maximize earnings per share
C) return and risk factors in order to maximize market value
D) return and risk factors in order to maximize dividends
Answer: C
Diff: 1
Topic: Optimal Capital Structure
Learning Obj.: LG 4
Learning Outcome: F-21
Question Status: Previous Edition
AACSB Tag: Analytic Skills

11) Beginning with a zero-leverage company, as debt is substituted for equity in the capital structure ________.
A) the overall cost of capital first rises, reaches a maximum, and then declines
B) the overall cost of capital declines
C) the overall cost of capital first declines, reaches a minimum, and then rises
D) the overall cost of capital rises
Answer: C
Diff: 2
Topic: Optimal Capital Structure
Learning Obj.: LG 4
Learning Outcome: F-21
Question Status: Revised
AACSB Tag: Analytic Skills

12) Poor capital structure decisions can result in ________ the cost of capital, resulting in ________ acceptable investments.
A) increasing; fewer
B) decreasing; more
C) increasing; more
D) decreasing; fewer
Answer: A
Diff: 1
Topic: Optimal Capital Structure
Learning Obj.: LG 4
Learning Outcome: F-21
Question Status: Previous Edition
AACSB Tag: Analytic Skills

13) According to the traditional approach to capital structure, the value of a firm will be maximized when ________.
A) the financial leverage is maximized
B) the cost of debt is minimized
C) the weighted average cost of capital is minimized
D) the dividend payout is maximized
Answer: C
Diff: 1
Topic: Optimal Capital Structure
Learning Obj.: LG 4
Learning Outcome: F-21
Question Status: Previous Edition
AACSB Tag: Analytic Skills

14) In the traditional approach to capital structure, as the amount of debt increases in a firm's capital structure, ________.
A) the cost of equity rises faster than the cost of debt
B) the cost of debt rises faster than the cost of equity
C) debt becomes less risky
D) equity cost is unaffected
Answer: A
Diff: 1
Topic: Optimal Capital Structure
Learning Obj.: LG 4
Learning Outcome: F-21
Question Status: Previous Edition
AACSB Tag: Analytic Skills

15) The value of a firm at optimum capital structure is computed as ________.
A) earnings before interest and taxes times one less tax rate divided by one plus weighted average cost of capital
B) earnings before interest and taxes times one less tax rate divided by weighted average cost of capital
C) operating cash flow divided by weighted average cost of capital
D) operating cash flow divided by one plus weighted average cost of capital
Answer: B
Diff: 1
Topic: Optimal Capital Structure
Learning Obj.: LG 4
Learning Outcome: F-21
Question Status: New
AACSB Tag: Analytic Skills

16) A firm has an operating profit of $300,000, interest of $35,000, and a tax rate of 40 percent. The firm has an after-tax cost of debt of 5 percent and a cost of equity of 15 percent. The firm's target capital structure is set at a mix of 40 percent debt and 60 percent equity. Assuming this as the optimum capital structure, the value of the firm is ________.
A) $1.4 million
B) $2.2 million
C) $1.8 million
D) $6.0 million
Answer: C
Diff: 1
Topic: Optimal Capital Structure
Learning Obj.: LG 4
Learning Outcome: F-21
Question Status: Previous Edition
AACSB Tag: Analytic Skills

17) A firm is analyzing two possible capital structures—30 and 50 percent debt ratios. The firm has total assets of $5,000,000 and common stock valued at $50 per share. The firm has a marginal tax rate of 40 percent on ordinary income. The number of common shares outstanding for each of the capital structures would be ________.
A) 30 percent debt ratio: 30,000 shares and 50 percent debt ratio: 50,000 shares
B) 30 percent debt ratio: 50,000 shares and 50 percent debt ratio: 70,000 shares
C) 30 percent debt ratio: 70,000 shares and 50 percent debt ratio: 100,000 shares
D) 30 percent debt ratio: 70,000 shares and 50 percent debt ratio: 50,000 shares
Answer: D
Diff: 1
Topic: Optimal Capital Structure
Learning Obj.: LG 4
Learning Outcome: F-21
Question Status: Revised
AACSB Tag: Analytic Skills

18) A firm is analyzing two possible capital structures—30 and 50 percent debt ratios. The firm has total assets of $5,000,000 and common stock valued at $50 per share. The firm has a marginal tax rate of 40 percent on ordinary income. If the interest rate on debt is 7 percent and 9 percent for the 30 percent and the 50 percent debt ratios, respectively, the amount of interest on the debt under each of the capital structures being considered would be ________.
A) 30 percent debt ratio: $105,000 and 50 percent debt ratio: $225,000
B) 30 percent debt ratio: $245,000 and 50 percent debt ratio: $225,000
C) 30 percent debt ratio: $105,000 and 50 percent debt ratio: $250,000
D) 30 percent debt ratio: $135,000 and 50 percent debt ratio: $175,000
Answer: A
Diff: 2
Topic: Optimal Capital Structure
Learning Obj.: LG 4
Learning Outcome: F-21
Question Status: Previous Edition
AACSB Tag: Analytic Skills

13.5 Discuss the EBIT-EPS approach to capital structure.

1) The EBIT-EPS approach to capital structure involves selecting the capital structure that maximizes earnings before interest and taxes (EBIT) over the expected range of earnings per share (EPS).
Answer: FALSE
Diff: 1
Topic: EBIT-EPS Approach to Capital Structure
Learning Obj.: LG 5
Learning Outcome: F-21
Question Status: Previous Edition
AACSB Tag: Analytic Skills

2) The EBIT-EPS analysis tends to concentrate on maximization of earnings rather than maximization of owners' wealth.
Answer: TRUE
Diff: 1
Topic: EBIT-EPS Approach to Capital Structure
Learning Obj.: LG 5
Learning Outcome: F-21
Question Status: Previous Edition
AACSB Tag: Analytic Skills

3) Financial breakeven point represents the level of earnings after interest and taxes necessary for a firm to cover its fixed operating and financial changes—that is, the point at which dividends per share is equal to zero.
Answer: FALSE
Diff: 1
Topic: Presenting a Financing Plan Graphically
Learning Obj.: LG 5
Learning Outcome: F-21
Question Status: Revised
AACSB Tag: Analytic Skills

4) The higher the financial breakeven point and the steeper the slope of the capital structure line, the greater the financial risk.
Answer: TRUE
Diff: 1
Topic: Considering Risk in EBIT–EPS Analysis
Learning Obj.: LG 5
Learning Outcome: F-21
Question Status: Previous Edition
AACSB Tag: Analytic Skills

5) The higher the degree of financial leverage (DFL), the greater the leverage a given financing plan has, and the steeper its slope when plotted on EBIT-EPS axes.
Answer: TRUE
Diff: 1
Topic: Considering Risk in EBIT–EPS Analysis
Learning Obj.: LG 5
Learning Outcome: F-21
Question Status: Previous Edition
AACSB Tag: Analytic Skills

6) The steeper the slope of the EBIT-EPS capital structure line, the lower is the financial risk.
Answer: FALSE
Diff: 1
Topic: Considering Risk in EBIT–EPS Analysis
Learning Obj.: LG 5
Learning Outcome: F-21
Question Status: Previous Edition
AACSB Tag: Analytic Skills

7) Because risk premiums increase with increases in financial leverage, maximizing EPS does not assure owners' wealth maximization.
Answer: TRUE
Diff: 1
Topic: Basic Shortcoming of EBIT–EPS Analysis
Learning Obj.: LG 5
Learning Outcome: F-21
Question Status: Previous Edition
AACSB Tag: Analytic Skills

8) The basic shortcoming of EBIT-EPS analysis is that this model focuses on the maximization of earnings rather than on the maximization of owner wealth as reflected in a firm's stock price.
Answer: TRUE
Diff: 1
Topic: Basic Shortcoming of EBIT–EPS Analysis
Learning Obj.: LG 5
Learning Outcome: F-21
Question Status: Revised
AACSB Tag: Analytic Skills

9) The basic shortcoming of EBIT-EPS analysis is that this model focuses on the maximization of stock returns rather than on the maximization of share price.
Answer: FALSE
Diff: 1
Topic: Basic Shortcoming of EBIT–EPS Analysis
Learning Obj.: LG 5
Learning Outcome: F-21
Question Status: Previous Edition
AACSB Tag: Analytic Skills

10) In the EBIT-EPS approach to capital structure, risk is represented by ________.
A) the slope of the capital market line
B) shifts in the cost of debt capital
C) the slope of the capital structure line
D) shifts in the times-interest-earned ratio
Answer: C
Diff: 1
Topic: EBIT-EPS Approach to Capital Structure
Learning Obj.: LG 5
Learning Outcome: F-21
Question Status: Previous Edition
AACSB Tag: Analytic Skills

11) In the EBIT-EPS approach to capital structure, a constant level of EBIT is assumed ________.
A) to ease the calculations of owners' equity
B) to isolate the impact on returns of the financing costs associated with alternative capital structures
C) to emphasize the relationship between interest expenses and taxes
D) to concentrate on the effect of revenue and expense on capital structure decisions
Answer: B
Diff: 1
Topic: EBIT-EPS Approach to Capital Structure
Learning Obj.: LG 5
Learning Outcome: F-21
Question Status: Previous Edition
AACSB Tag: Analytic Skills

12) A firm has a current capital structure consisting of $400,000 of 12 percent annual interest debt and 50,000 shares of common stock. The firm's tax rate is 40 percent on ordinary income. If the EBIT is expected to be $200,000, the firm's earnings per share will be ________.
A) $2.40
B) $3.04
C) $7.04
D) $1.82
Answer: D
Diff: 1
Topic: EBIT-EPS Approach to Capital Structure
Learning Obj.: LG 5
Learning Outcome: F-21
Question Status: Previous Edition
AACSB Tag: Analytic Skills

13) The EBIT-EPS approach to capital structure proposes that an optimal capital structure be selected which ________.
A) maximizes the weighted average cost of capital
B) minimizes the cost of debt
C) maximizes the EPS
D) minimizes dividends
Answer: C
Diff: 1
Topic: EBIT-EPS Approach to Capital Structure
Learning Obj.: LG 5
Learning Outcome: F-21
Question Status: Revised
AACSB Tag: Analytic Skills

14) A firm has interest expense of $145,000, preferred dividends of $25,000, and a tax rate of 40 percent. The firm's financial breakeven point is ________.
A) $ 25,000
B) $170,000
C) $186,667
D) $145,000
Answer: C
Diff: 2
Topic: Presenting a Financing Plan Graphically
Learning Obj.: LG 5
Learning Outcome: F-21
Question Status: Previous Edition
AACSB Tag: Analytic Skills

15) A firm has a current capital structure consisting of $400,000 of 12 percent annual interest debt and 50,000 shares of common stock. The firm's tax rate is 40 percent on ordinary income. If the EBIT is expected to be $200,000, two EBIT-EPS coordinates for the firm's existing capital structure are ________.
A) ($36,000, $0) and ($200,000, $3.04)
B) ($48,000, $0) and ($200,000, $1.82)
C) ($0, $48,000) and ($200,000, $1.82)
D) ($152,000, $3.50) and ($150,000, $1.82)
Answer: B
Diff: 1
Topic: Presenting a Financing Plan Graphically
Learning Obj.: LG 5
Learning Outcome: F-21
Question Status: Previous Edition
AACSB Tag: Analytic Skills

16) The major shortcoming of the EBIT-EPS approach to capital structure is that ________.
A) the technique does not promote the maximization of shareholder wealth
B) the technique does not consider the cost of capital
C) the technique only considers leverage-related risk
D) the technique does not maximize earnings per share
Answer: A
Diff: 1
Topic: Basic Shortcoming of EBIT–EPS Analysis
Learning Obj.: LG 5
Learning Outcome: F-21
Question Status: Previous Edition
AACSB Tag: Analytic Skills

17) The basic shortcoming of the EBIT-EPS approach to capital structure is ________.
A) that the optimal capital structure is difficult to compute
B) its disregard for the presence of preferred stock in the capital structure
C) its disregard for the firm's dividend policy
D) that it concentrates on the maximization of EPS rather than the maximization of owner's wealth
Answer: D
Diff: 1
Topic: Basic Shortcoming of EBIT–EPS Analysis
Learning Obj.: LG 5
Learning Outcome: F-21
Question Status: Previous Edition
AACSB Tag: Analytic Skills

Table 13.1

	Plan 1	Plan 2
Interest Expense	$25,000	$50,000
Preferred Dividend	$3,000	$1,500
Common Shares Outstanding	200,000	100,000

18) Assuming a 40 percent tax rate, what is the financial breakeven point for each plan? (See Table 13.1)
Answer: Financial breakeven point = Interest + Preferred Dividends / (1 - t)
Financing Plan 1: FBP = $25,000 + $3,000 / (1 - 0.40) = $30,000
Financing Plan 2: FBP = $50,000 + $1,500 / (1 - 0.40) = $52,500
Diff: 2
Topic: Presenting a Financing Plan Graphically
Learning Obj.: LG 5
Learning Outcome: F-21
Question Status: Previous Edition
AACSB Tag: Analytic Skills

19) What is the degree of financial leverage at a base level EBIT of $120,000 for both financing plans? The firm has a 40 percent tax rate. (See Table 13.1)
Answer: Degree of financial leverage for Plan 1 at base level of EBIT

$$= \frac{\$120{,}000}{\$120{,}000 - \$25{,}000 - \$3{,}000\,/\,(1 - 0.40)} = 1.33$$

Degree of financial leverage for Plan 2 at base level of EBIT

$$= \frac{\$120{,}000}{\$120{,}000 - \$50{,}000 - \$1{,}500\,/\,(1 - 0.40)} = 1.78$$

Diff: 2
Topic: Financial Leverage
Learning Obj.: LG 5
Learning Outcome: F-21
Question Status: Previous Edition
AACSB Tag: Analytic Skills

20) What is the EPS under Financing Plan 1, if the firm projects EBIT of $200,000 and has a tax rate of 40 percent? (See Table 13.1)
Answer: Calculate the EPS with the formula:

$$\text{EPS} = \frac{(\text{EBIT} - \text{Interest}) \times (1 - \text{tax rate}) - \text{PD}}{\text{Number of common shares outstanding}}$$

$$\text{EPS} = \frac{(\$200{,}000 - \$25{,}000) \times (1 - 0.40) - \$3{,}000}{200{,}000} = 0.51$$

Diff: 2
Topic: EBIT-EPS Approach to Capital Structure
Learning Obj.: LG 5
Learning Outcome: F-21
Question Status: Previous Edition
AACSB Tag: Analytic Skills

21) At about what EBIT level should the financial manager be indifferent to either plan? (See Table 13.1)
Answer: The financial manager should be indifferent to either plan at the point when the EPS resulting from both the plans is same.

$$\frac{(\text{EBIT} - \$25{,}000) \times (1 - 0.40) - \$3{,}000}{200{,}000} = \frac{(\text{EBIT} - \$50{,}000) \times (1 - 0.40) - \$1{,}500}{100{,}000}$$

Therefore, the financial manager should be indifferent at EBIT = $75,000.
Diff: 2
Topic: EBIT-EPS Approach to Capital Structure
Learning Obj.: LG 5
Learning Outcome: F-21
Question Status: Revised
AACSB Tag: Analytic Skills

22) Which plan has a higher degree of financial leverage and financial risk? (See Table 13.1)
Answer: Financing Plan 2 has higher degree of financial leverage and financial risk.
Diff: 2
Topic: Financial Leverage
Learning Obj.: LG 5
Learning Outcome: F-21
Question Status: Revised
AACSB Tag: Analytic Skills

23) Frankline Coin, Inc. is considering two capital structures. The key information follows. Assume a 40 percent tax rate and expected EBIT of $50,000.

Source of Capital	Structure 1	Structure 2
Long-term debt	$500,000 @ 8%	$350,000 @ 7%
Common stock	10,000 shares	20,000 shares

(a) Calculate two EBIT-EPS coordinates for each of the structures.
(b) Indicate over what EBIT range, if any, each structure is preferred.
Answer:
(a)

	Structure 1		Structure 2	
	EBIT	EPS	EBIT	EPS
Coordinates	40,000;	0	24,500;	0
	50,000;	0.60	50,000;	0.77
	60,000;	1.20	60,000;	1.07

(b) Calculation of indifference point
EPS (Structure 1) = EPS (Structure 2)
(EBIT - $40,000)(1 - 0.40)/10,000 = (EBIT - $24,500)(1 - 0.40)/20,000
If EBIT is expected to be less than $55,500, structure 2 will maximize EPS. If EBIT is expected to be greater than $55,500, Structure 1 will maximize EPS.
Diff: 2
Topic: EBIT-EPS Approach to Capital Structure
Learning Obj.: LG 5
Learning Outcome: F-21
Question Status: Previous Edition
AACSB Tag: Analytic Skills

13.6 Review the return and risk of alternative capital structures, their linkage to market value, and other important considerations related to capital structure.

1) Firms having stable and predictable revenues can more safely employ highly leveraged capital structures than can firms with volatile patterns of sales revenue.
Answer: TRUE
Diff: 1
Topic: Some Other Important Considerations
Learning Obj.: LG 6
Learning Outcome: F-21
Question Status: Previous Edition
AACSB Tag: Analytic Skills

2) Harry Trading Company must choose its optimal capital structure. Currently, the firm has a 20 percent debt ratio and the firm expects to generate a dividend next year of $5.44 per share. Dividends are expected to remain at this level indefinitely. Stockholders currently require a 12.1 percent return on their investment. Harry is considering changing its capital structure if it would benefit shareholders. The firm estimates that if it increases the debt ratio to 30 percent, it will increase its expected dividend to $5.82 per share. Again, dividends are expected to remain at this new level indefinitely. However, because of the added risk, the required return demanded by stockholders will increase to 12.6 percent. Based on this information, should Harry make the change?
A) Yes, since the value of the firm will increase by $1.23 per share.
B) No, since the value of the firm will decrease by $1.23 per share.
C) Yes, since the value of the firm will increase by $0.25 per share.
D) No, since the value of the firm will decrease by $0.25 per share.
Answer: A
Diff: 1
Topic: Choosing the Optimal Capital Structure
Learning Obj.: LG 6
Learning Outcome: F-21
Question Status: Revised
AACSB Tag: Analytic Skills

3) The reason why maximizing share value and maximizing EPS do not give the same optimal capital structure is because ________.
A) EPS maximization does not consider risk
B) share value maximization does not consider risk
C) EPS maximization considers cash flows
D) EPS maximization does consider risk
Answer: A
Diff: 1
Topic: Maximizing Value versus Maximizing EPS
Learning Obj.: LG 6
Learning Outcome: F-21
Question Status: Previous Edition
AACSB Tag: Analytic Skills

4) Tangshan Mining Company must choose its optimal capital structure. Currently, the firm has a 40 percent debt ratio and the firm expects to generate a dividend next year of $4.89 per share and dividends are expected to grow at a constant rate of 5 percent for the foreseeable future. Stockholders currently require a 10.89 percent return on their investment. Tangshan Mining is considering changing its capital structure if it would benefit shareholders. The firm estimates that if it increases the debt ratio to 50 percent, it will increase its expected dividend to $5.24 per share. Because of the additional leverage, dividend growth is expected to increase to 6 percent and this growth will be sustained indefinitely. However, because of the added risk, the required return demanded by stockholders will increase to 11.34 percent.

(a) What is the value per share for Tangshan Mining under the current capital structure?
(b) What is the value per share for Tangshan Mining under the proposed capital structure?
(c) Should Tangshan Mining make the capital structure change? Explain.

Answer:

(a) The current price of Tangshan Mining stock is:
P = $4.89 / (0.1089 - 0.05) = $83.02

(b) The price of Tangshan Mining stock if the capital structure change is made is expected to be:
P = $5.24 / (0.1134 - 0.06) = $98.13

(c) Yes. Tangshan Mining should make the change because it will maximize share price.

Diff: 2
Topic: Choosing the Optimal Capital Structure
Learning Obj.: LG 6
Learning Outcome: F-21
Question Status: Previous Edition
AACSB Tag: Analytic Skills