Chapter 15: Target Costing and Cost Analysis for Pricing Decisions

MULTIPLE CHOICE QUESTIONS

1. Which of the following can influence a company's pricing decisions?
   A. Manufacturing costs.
   B. Competitors.
   C. Customer demand.
   D. Pricing laws.
   E. All of the above.

   Answer: E LO: 1 Type: RC

2. Which of the following choices correctly denotes factors that can influence a company's pricing practices for goods and services?

	Market Conditions	Costs	Customer Demand
A.	No	Yes	Yes
B.	No	Yes	No
C.	Yes	Yes	Yes
D.	Yes	Yes	No
E.	Yes	No	Yes

   Answer: C LO: 1 Type: RC

3. Which of the following is not a major influence on pricing decisions?
   A. Planning and control policies of the firm.
   B. Customer demand.
   C. Costs.
   D. Competitors.
   E. Political, legal, and image-related issues.

   Answer: A LO: 1 Type: RC

4. Consider the following statements about pricing:

   I. Prices are often determined by the market, subject to the constraint that costs must be covered in the long run.
   II. Prices are often based on costs, subject to the constraint that customers and competitors will exert an influence.
   III. A balance of market forces and cost is important when making pricing decisions.

   Which of the above statements is (are) true?
   A. I only.
   B. II only.
   C. I and III.
   D. II and III.
   E. I, II, and III.

   Answer: E LO: 1 Type: RC

5. The curve that shows the relationship between the sales price and quantity sold is called the:
   A. marginal revenue curve.
   B. average cost curve.
   C. profit curve.
   D. demand curve.
   E. revenue curve.

   Answer: D LO: 2 Type: RC

6. On a graph where the horizontal axis represents quantity sold and the vertical axis represents selling price, the basic demand curve in a competitive market can be graphed:
   A. as a horizontal line.
   B. as a vertical line.
   C. as a downward sloping line to the right.
   D. as an upward sloping line to the right.
   E. in the same manner as the total revenue curve.

   Answer: C LO: 2 Type: N

7. The curve that shows the change in total revenue that accompanies a change in quantity sold is called the:
   A. marginal revenue curve.
   B. average cost curve.
   C. profit curve.
   D. demand curve.
   E. revenue curve.

   Answer: A LO: 2 Type: RC

8. From an economic perspective, a company's profit-maximizing quantity is found where:
   A. the total cost curve intersects with the marginal cost curve.
   B. the total revenue curve intersects with the average revenue curve.
   C. the marginal revenue curve intersects with the demand curve.
   D. the marginal revenue curve intersects with the marginal cost curve.
   E. the marginal cost curve intersects with the demand curve.

   Answer: D LO: 2 Type: RC

9. If the volume sold reacts strongly to changes in price, demand:
   A. has no elasticity.
   B. has negative elasticity.
   C. is inelastic.
   D. is elastic.
   E. is unrealistic.

   Answer: D LO: 2 Type: RC

10. Under which of the following condition(s) are prices said to be elastic?

	Price Change	Change in Sales Volume
A.	Increase	Sizable increase
B.	Increase	Sizable decrease
C.	Decrease	Sizable increase
D.	Decrease	Sizable decrease

   E. Choices "B" and "C" are characteristic of elastic prices.

   Answer: E LO: 2 Type: RC

11. Which of the following statements regarding price elasticity is false?
   A. The concept of price elasticity is an extension of the economic pricing model.
   B. Demand is elastic if a price change has a large negative impact on sales volume.
   C. Demand is elastic if price changes have no impact on sales volume.
   D. Measuring price elasticity is an important objective of market research.
   E. Demand is relatively inelastic if price changes have little impact on sales quantity.

   Answer: C LO: 2 Type: RC

12. Prices are said to be inelastic under which of the following conditions?

	Price Change	Change in Sales Volume
A.	Increase	Sizable decrease
B.	Increase	Little impact
C.	Decrease	Sizable increase
D.	Decrease	Little impact

   E. Choices "B" and "D" are characteristic of inelastic prices.

   Answer: E LO: 2 Type: RC

13. Consider the following statements regarding the economic pricing model:

    I. The economic model is limited in use because a firm's demand curve is difficult to determine.
    II. The marginal revenue and marginal cost model is valid for all forms of market organization (perfect competition, oligopoly, and so forth).
    III. Cost accounting systems are not designed to measure the marginal changes in cost incurred as production and sales increase.

    Which of the above statements is (are) true?
    A. I only.
    B. III only.
    C. I and III.
    D. II and III.
    E. I, II, and III.

    Answer: C LO: 2 Type: RC

14. In a typical business, the firm's overall demand would be influenced by interactions of pricing policies and:
    A. the company's reputation.
    B. the quality of goods and services offered.
    C. competing goods and services.
    D. advertising and promotional campaigns.
    E. all of the above factors.

    Answer: E LO: 2 Type: RC

15. Consider the following statements about why prices are often based on product costs:

    I. Companies sell many products and services, and cost-based approaches provide a simple and direct pricing method.
    II. The cost of a product or service provides a lower limit or floor, below which price should not be set in the long run.
    III. Determining a company's demand and marginal revenue curves is difficult, costly, and time consuming.

    Which of the above statements is (are) true?
    A. I only.
    B. III only.
    C. I and III.
    D. II and III.
    E. I, II, and III.

    Answer: E LO: 2 Type: RC

16. Which of the following represents the cost-plus pricing formula?
    A. Price = cost + (markup percentage x cost).
    B. Price = cost + markup percentage.
    C. Price = markup percentage x cost.
    D. Price = cost ÷ markup percentage.
    E. Price = cost + (markup percentage + cost).

    Answer: A LO: 3 Type: RC

17. If a company uses a cost-plus approach to pricing, it will find:
    A. there are several different definitions of cost and the higher the cost, the higher the markup percentage.
    B. there are several different definitions of cost and the higher the cost, the lower the markup percentage.
    C. there is one definition of cost, and there is no relationship between cost and the markup percentage used.
    D. there is one definition of cost, and there is no markup percentage with the cost-plus approach.
    E. it is in violation of generally accepted accounting principles (GAAP).

    Answer: B LO: 3 Type: RC

18. Patterson and Clay Companies both use cost-plus pricing formulas and arrived at a selling price of $1,000 for the same product. Patterson uses absorption manufacturing cost as the basis for computing its dollar markup whereas Clay uses total cost. Which of the following choices correctly denotes the company that would have (1) the higher cost basis for deriving its dollar markup and (2) the higher markup percentage?

	Cost Basis	Markup Percentage
A.	Patterson	Patterson
B.	Patterson	Clay
C.	Clay	Patterson
D.	Clay	Clay
E.	More information is needed to judge.	

    Answer: C LO: 3 Type: N

19. Consider the following statements about absorption-cost pricing formulas:

    I. Absorption-cost formulas consider a company's fixed manufacturing costs when establishing a selling price.
    II. Absorption-cost formulas are often justified on the grounds that a company must cover all of its costs in the long run.
    III. Absorption-cost data are the type that managers need when facing certain pricing decisions, such as whether or not to accept a special order.

    Which of the above statements is (are) true?
    A. II only.
    B. I and II.
    C. I and III.
    D. II and III.
    E. I, II, and III.

    Answer: B LO: 3 Type: RC

20. The difference between absorption manufacturing cost and total cost with respect to product pricing is caused by:
    A. variable manufacturing cost.
    B. applied fixed manufacturing cost.
    C. variable selling and administrative cost.
    D. allocated fixed selling and administrative cost.
    E. choices "C" and "D" above.

    Answer: E LO: 3 Type: RC

21. Aussie Company uses cost-plus pricing and has calculated total variable manufacturing cost, total absorption manufacturing cost, and total cost for one of its products. Which of these costs would be the smallest?
    A. Total variable manufacturing cost.
    B. Total absorption manufacturing cost.
    C. Total cost.
    D. There is no difference between choices "B" and "C."
    E. More information is needed to correctly answer the question.

    Answer: A LO: 3 Type: N

22. Which of the following formulas represents the markup percentage on total cost?
    A. Target profit ÷ annual volume.
    B. Target profit ÷ (annual volume x total cost per unit).
    C. (Annual volume x total cost per unit) ÷ target profit.
    D. Target profit ÷ variable cost.
    E. (Target profit x total cost per unit) ÷ annual volume.

    Answer: B LO: 3 Type: RC

23. When determining the markup to be used in a cost-plus pricing formula, many firms base the markup on a target:
    A. return on investment.
    B. sales margin.
    C. capital turnover.
    D. earnings per share.
    E. debt-to-equity ratio.

    Answer: A LO: 3 Type: RC

24. The following costs relate to Riley Company: Variable manufacturing cost, $42; variable selling and administrative cost, $10; applied fixed manufacturing overhead, $37; and allocated fixed selling and administrative cost, $12. If Riley uses absorption manufacturing-cost pricing formulas, the company's markup percentage would be computed on the basis of:
    A. $42.
    B. $52.
    C. $79.
    D. $101.
    E. some other amount.

    Answer: C LO: 3 Type: A

25. The following data pertain to Quigley Enterprises:

Variable manufacturing cost	$60
Variable selling and administrative cost	10
Applied fixed manufacturing cost	30
Allocated fixed selling and administrative cost	5

    What price will the company charge if the firm uses cost-plus pricing based on total cost and a markup percentage of 60%?
    A. $63.
    B. $168.
    C. $175.
    D. $280.
    E. Some other amount.

    Answer: B LO: 3 Type: A

26. The following data pertain to Lopez Enterprises:

Variable manufacturing cost	$70
Variable selling and administrative cost	20
Applied fixed manufacturing cost	40
Allocated fixed selling and administrative cost	15

What price will the company charge if the firm uses cost-plus pricing based on absorption manufacturing cost and a markup percentage of 110%?
A. $84.
B. $147.
C. $210.
D. $231.
E. Some other amount.

Answer: D LO: 3 Type: A

Use the following to answer questions 27-30:

The Razooks Company, which manufactures office equipment, is ready to introduce a new line of portable copiers. The following copier data are available:

Variable manufacturing cost	$180
Applied fixed manufacturing cost	90
Variable selling and administrative cost	60
Allocated fixed selling and administrative cost	75

27. What price will the company charge if the firm uses cost-plus pricing based on variable manufacturing cost and a markup percentage of 220%?
A. $396.00
B. $495.00
C. $576.00
D. $643.50
E. Some other amount.

Answer: C LO: 3 Type: A

28. What price will the company charge if the firm uses cost-plus pricing based on total variable cost and a markup percentage of 160%?
A. $150.
B. $384.
C. $390.
D. $624.
E. Some other amount.

Answer: D LO: 3 Type: A

29. What price will the company charge if the firm uses cost-plus pricing based on absorption cost and a markup percentage of 120%?
    A. $420.
    B. $459.
    C. $594.
    D. $672.
    E. Some other amount.

    Answer: C LO: 3 Type: A

30. What price will the company charge if the firm uses cost-plus pricing based on total cost and a markup percentage of 40%?
    A. $462.
    B. $513.
    C. $567.
    D. $594.
    E. Some other amount.

    Answer: C LO: 3 Type: A

31. Montrose uses a 140% markup on total cost and recently computed a selling price of $1,560 for a particular product. On the basis of this information, the product's total cost is:
    A. $650.00.
    B. $910.00.
    C. $1,114.29.
    D. $2,184.00.
    E. some other amount.

    Answer: A LO: 3 Type: A, N

32. Albany Company has average invested capital of $800,000 and a target return on investment of 15%. The total cost per unit is $20 based on a volume level of 25,000 units. Albany's markup percentage on total cost is:
    A. 9.375%.
    B. 24.0%.
    C. 47.5%.
    D. 62.5%.
    E. some other amount.

    Answer: B LO: 3 Type: A

33. If the target profit is $60,000 for a volume of 480 units, fixed costs are $168,000, and the variable cost per unit is $450, then the markup percentage on variable cost would be:
    A. 104.56%.
    B. 105.56%.
    C. 106.00%.
    D. 106.45%.
    E. some other amount.

    Answer: B LO: 3 Type: A

Use the following to answer questions 34-36:

Dexter, Inc., which manufactures various lines of computer equipment, is planning to introduce a new line of laptops. Current plans call for the production and sale of 1,000 units, with estimated production costs as follows:

Variable costs:		
Manufacturing	$450,000	
Selling and administrative	100,000	
Total variable costs		$ 550,000
Fixed costs:		
Manufacturing	$300,000	
Selling and administrative	180,000	
Total fixed costs		480,000
Total costs		$1,030,000

The average amount of capital invested in the laptop product line is $900,000 and Dexter's target return on investment is 18%.

34. What price must Dexter charge if the company uses cost-plus pricing based on total cost?
    A. $868.
    B. $900.
    C. $1,000.
    D. $1,192.
    E. Some other amount.

    Answer: D LO: 3 Type: A

35. If Dexter uses cost-plus pricing based on absorption cost, the markup percentage the company must use would be:
    A. 15.72%.
    B. 21.64%.
    C. 29.56%.
    D. 58.93%.
    E. some other amount.

    Answer: D LO: 3 Type: A

36. What price must Dexter charge if the company uses cost-plus pricing based on total variable cost?
    A. $712.
    B. $900.
    C. $1,030.
    D. $1,192.
    E. Some other amount.

    Answer: D LO: 3 Type: A

37. Which of the following terms describes a pricing strategy in which a new product's initial price is set high and then eventually lowered to appeal to a broader range of customers?
    A. Penetration pricing.
    B. Price skimming.
    C. Customer pricing.
    D. Designed pricing.
    E. Market-share pricing.

    Answer: B LO: 4 Type: RC

38. What is price skimming?
    A. The initial price is set low and kept constant.
    B. The initial price is set low and then raised.
    C. The initial price is set high and later lowered.
    D. The initial price is set high and kept constant.
    E. The initial price is set high and then raised.

    Answer: C LO: 4 Type: RC

39. Which of the following terms describes a pricing strategy in which a new product's initial price is set relatively low in order to gain a large market share?
    A. Penetration pricing.
    B. Price skimming.
    C. Customer pricing.
    D. Designed pricing.
    E. Market-share pricing.

    Answer: A LO: 4 Type: RC

40. Company A uses a pricing approach where the initial price for a product is set high and then lowered, and Company B uses an approach where initial prices are set low in an effort to gain market share. What terms best describe these practices?

	Company A	Company B
A.	Predatory	Skimming
B.	Penetration	Predatory
C.	Skimming	Penetration
D.	Skimming	Predatory
E.	Predatory	Penetration

Answer: C LO: 4 Type: RC

41. Beehler Company, which desires to enter the market with a new product, will perform the following tasks:

1—Design and engineer the product.
2—Determine the product's cost.
3—Determine the desired profit margin.
4—Determine the suggested selling price.

If Beehler uses target costing, which task would the company perform first?
A. 1.
B. 2.
C. 3.
D. 4.
E. None of the above.

Answer: D LO: 5 Type: RC

42. The four tasks that follow take place in the concept known as target costing:

1—Value engineering.
2—Establish a target selling price.
3—Establish a target cost.
4—Establish a target profit.

Which of the following choices depicts the correct sequence of these tasks?
A. 1, 3, 4, 2.
B. 3, 1, 4, 2.
C. 2, 4, 3, 1.
D. 2, 3, 1, 4.
E. Some other sequence not listed above.

Answer: C LO: 5 Type: RC

43. Mohawk Corporation manufactures a single product that has a cost of $350. The company uses a 70% markup on cost to arrive at a selling price of $595, which results in a price that virtually always exceeds that of the market leaders. If Mohawk changes to the approach known as target costing, the company will first:
    A. reduce its 70% markup rate.
    B. trim its $350 cost.
    C. attempt to re-engineer its product.
    D. undertake a thorough study of competitors' prices.
    E. change the markup so that it is based on sales rather than based on cost.

    Answer: D LO: 5 Type: N

44. Which of the following features is typically absent in target costing?
    A. An approach that begins with the determination of a product or service's target cost.
    B. An approach that begins with the determination of a product or service's target selling price.
    C. A focus on the customer.
    D. A focus on product design.
    E. A focus on process design.

    Answer: A LO: 5 Type: RC

45. Which of the following is (are) a key feature of target costing?
    A. The use of cross-functional teams.
    B. A focus on the customer.
    C. A focus on product design.
    D. A focus on process design.
    E. All of the above.

    Answer: E LO: 5 Type: RC

46. Franklin Electronics currently sells a camera for $240. An aggressive competitor has announced plans for a similar product that will be sold for $205. Franklin's marketing department believes that if the price is dropped to meet competition, unit sales will increase by 10%. The current cost to manufacture and distribute the camera is $175, and Franklin has a profit goal of 20% of sales. If Franklin meets competitive selling prices, what is the company's target cost?
    A. $41.
    B. $48.
    C. $164.
    D. $175.
    E. $192

    Answer: C LO: 5 Type: A

47. Hughes currently sells a mixer for $850 that market leaders sell for $815. The current costs to manufacture and distribute the mixer total $530, and the company has a profit goal of 40% of sales. Hughes uses target costing in its efforts to be a leader in the marketplace. On the basis of this information, (1) what should Hughes consider to be the initial driver of the target-costing process and (2) what amount of cost reduction is needed for the company to achieve its goals?

	Initial Driver	Cost Reduction
A.	Current price of $850	$20
B.	Current price of $850	$41
C.	Market leaders' price of $815	$20
D.	Market leaders' price of $815	$41
E.	Market leaders' price of $815	Some other amount

Answer: D LO: 5 Type: RC, A

48. Quantum Enterprises currently sells a piece of luggage for $200. An aggressive competitor has announced plans for a similar product that will be sold for $170. Quantum's marketing department believes that if the price is dropped to meet competition, unit sales will increase by 10%. The current cost to manufacture and distribute the luggage is $130, and Quantum has a profit goal of 30% of sales. If Quantum meets competitive selling prices, what must happen to the company's manufacturing and distribution cost?

A. Nothing, because the costs are within defined ranges and can actually increase by $10.
B. Nothing, because the costs are within defined ranges and can actually increase by $23.
C. Costs must decrease by $11.
D. Costs must decrease by $39.
E. None of the above.

Answer: C LO: 5 Type: A

49. Montana produces bicycles in a highly competitive market. During the past year, the company has added a 30% markup on the $250 manufacturing cost for one of its most popular models. A new competitor manufactures a similar model, has established a $300 selling price, and is seriously eroding Montana's market share. Management now desires to use a target-costing approach to remain competitive and is willing to accept a 20% return on sales. If target costing is used, which of the following choices correctly denotes (1) the price that Montana will charge and (2) company's target cost?

	Selling Price	Target Cost
A.	$300	$240
B.	$300	$250
C.	$325	$240
D.	$325	$250
E.	Some other combination of selling price and target cost.	

Answer: A LO: 5 Type: A, N

50. Consider the following statements about activity-based costing and its use in pricing:

    I. A company that uses target costing generally would have little need for activity-based costing.
    II. Companies that use cost-plus pricing methods would have little need for activity-based costing.
    III. The use of activity-based costing will often lead to better pricing decisions by managers.

    Which of the above statements is (are) true?
    A. I only.
    B. II only.
    C. III only.
    D. I and III.
    E. I, II, and III.

    Answer: C LO: 6, 7 Type: N

51. Which of the following management tools is a key component of target costing?
    A. Management simulation.
    B. Linear programming.
    C. Value engineering.
    D. Goal programming.
    E. Performance reporting systems.

    Answer: C LO: 8 Type: RC

52. Which of the following cost-reduction and process-improvement techniques is often used in conjunction with target costing?
    A. Linear programming.
    B. Deterministic simulations.
    C. Cost allocation.
    D. Budgetary padding.
    E. Value engineering.

    Answer: E LO: 8 Type: RC

53. Consider the following statements about time and material pricing:
    I. The time charge includes the direct cost of an employee's time.
    II. The time charge includes an amount to cover various overhead costs.
    III. The material charge includes a handling charge for material.

    Which of the above statements is (are) true?
    A. I only.
    B. I and II.
    C. I and III.
    D. II and III.
    E. I, II, and III.

    Answer: E LO: 9 Type: RC

54. Under the time and material pricing method, a customer would be charged for:
    A. material costs.
    B. material and labor costs.
    C. material, labor, and overhead costs.
    D. material and labor costs, plus a profit margin.
    E. material, labor, and overhead costs, plus a profit margin.

    Answer: E LO: 9 Type: RC

55. With the time and material pricing method, the hourly time charge is typically set equal to:
    A. the hourly labor cost.
    B. the hourly labor cost + annual overhead.
    C. the hourly labor cost + an hourly overhead charge + an hourly charge to cover the profit margin.
    D. annual overhead + an hourly charge to cover the profit margin.
    E. the hourly labor cost + an hourly charge to cover the profit margin.

    Answer: C LO: 9 Type: RC

56. Glendale Corporation uses time and material pricing. The repair department expects 20,000 direct labor hours of activity and has the following selected data:

Labor and fringe benefit costs	$800,000
Overhead costs (excludes material handling and storage)	480,000
Target profit	220,000

    The company's time charge per hour is:
    A. $11.
    B. $24.
    C. $40.
    D. $64.
    E. $75.

    Answer: E LO: 9 Type: A

Use the following to answer questions 57-58:

St. Paul Auto Repair uses time and material pricing. The body shop, which anticipates 10,000 direct labor hours of activity, has the following data:

Annual overhead costs:	
Material handling and storage	$ 15,000
Other overhead costs	75,000
Annual cost of materials used	187,500
Labor rate per hour, including fringe benefits	18
Hourly charge to achieve profit margin	11

57. The time charge per hour is:
    A. $19.50.
    B. $27.00.
    C. $29.00.
    D. $36.50.
    E. some other amount.

    Answer: D LO: 9 Type: A

58. The amount to be added to each dollar of material cost to obtain the total material charge is:
    A. $0.06.
    B. $0.08.
    C. $0.10.
    D. $0.13.
    E. some other amount.

    Answer: B LO: 9 Type: A

59. If a particular job takes 20 hours of labor and $800 of materials, the price charged for the job is:
    A. $1,380.
    B. $1,444.
    C. $1,530.
    D. $1,594.
    E. some other amount.

    Answer: D LO: 9 Type: A

60. Consider the following statements about competitive bidding:

I. The higher the price that a company bids, the greater the profit if the firm gets the contract.
II. Bidding a higher price increases the probability of obtaining a contract.
III. A company that bids low to ensure acceptance of a contract may actually wind up bidding too low to make an acceptable profit.

Which of the above statements is (are) true?
A. I only.
B. II only.
C. III only.
D. I and III.
E. I, II, and III.

Answer: D LO: 10 Type: RC

61. If a firm has excess capacity, which of the following is a sensible bidding strategy?
A. Set a price to cover all costs.
B. Base the bid on the incremental costs incurred because the job will contribute toward the company's profit.
C. Base the bid solely on direct labor hours.
D. Downplay the potential impact of competitors.
E. Allocate common fixed costs to individual jobs before preparing the bid.

Answer: B LO: 10 Type: RC

62. If a firm has no excess capacity, which of the following is a sensible bidding strategy?
A. Set a price to cover all costs.
B. Base the bid on the incremental costs incurred because the job will contribute toward the company's profit.
C. Base the bid solely on direct labor hours.
D. Downplay the potential impact of competitors.
E. Try to minimize the company's tax liability.

Answer: A LO: 10 Type: RC

63. Superior Company is involved in a competitive bidding situation. The following costs are anticipated for a project to be bid with the City of Southlake:

Direct material	$340,000
Direct labor	610,000
Allocated variable overhead	420,000
Allocated fixed cost	110,000

Which of the following cost figures should be used in setting a minimum bid price if Superior has excess capacity?
A. $530,000.
B. $950,000.
C. $1,370,000.
D. $1,480,000.
E. Some other amount.

Answer: C LO: 10 Type: A

64. Parkside Recreation is exploring a competitive bidding situation. The firm, which currently has no excess capacity, estimates the following costs for a project to be performed for the Morningside School District:

Direct material	$220,000
Direct labor	130,000
Allocated variable overhead	91,000
Allocated fixed cost	40,000

Which of the following cost figures would be used in determining a minimum price if Parkside decides to bid on the Morningside project?
A. $131,000.
B. $350,000.
C. $441,000.
D. $481,000.
E. Some other amount.

Answer: D LO: 10 Type: A

65. Overland Company is involved in a competitive bidding situation. Variable costs related to the project total $520,000, and allocated fixed overhead is $95,000. Which of the following cost figures should be used in setting a minimum bid price if Overland has (1) excess capacity and (2) no excess capacity?

	Excess Capacity	No Excess Capacity
A.	$0	$0
B.	$520,000	$520,000
C.	$520,000	$615,000
D.	$615,000	$520,000
E.	$615,000	$615,000

Answer: C LO: 10 Type: A

66. Consider the following statements about pricing and the law:

I. American antitrust laws restrict certain types of pricing behavior.
II. The term "price discrimination" involves charging different prices to different customers for the same goods and services.
III. Charging different prices to different customers for the same goods is permissible if price differences are based on cost differences of producing and/or selling the good.

Which of the above statements is (are) true?
A. I only.
B. II only.
C. I and II.
D. II and III.
E. I, II, and III.

Answer: E LO: 11 Type: RC

67. Which of the following pricing practices is illegal?
A. Penetration pricing.
B. Price skimming.
C. Predatory pricing.
D. Cost-based pricing.
E. Market-share pricing.

Answer: C LO: 11 Type: RC

EXERCISES

Cost-Plus Pricing Formulas

68. The following data pertain to Polar Company's commercial snow thrower:

Variable manufacturing cost	$400
Applied fixed manufacturing cost	160
Variable selling and administrative cost	60
Allocated fixed selling and administrative cost	25

Required:
For each of the following cost bases, determine the appropriate percentage markup that will result in a price of $980 for the snow thrower. (Round percentages to nearest one-hundredth of a percent.)
A. Variable manufacturing cost.
B. Absorption manufacturing cost.
C. Total cost.
D. Total variable cost.

LO: 3 Type: A

Answer:

A.	Variable manufacturing cost per unit	$400
	Markup ($400 x 145%)	580
	Price	$980
B.	Absorption manufacturing cost ($400 + $160)	$560
	Markup ($560 x 75%)	420
	Price	$980
C.	Total cost ($400 + $160 + $60 + $25)	$645
	Markup ($645 x 51.94%)	335
	Price	$980
D.	Total variable cost ($400 + $60)	$460
	Markup ($460 x 113.04%)	520
	Price	$980

Cost-Plus Pricing Formulas; Missing Data

69. The following data pertain to Bristol Corporation's residential humidifier:

Variable manufacturing cost	$240
Applied fixed manufacturing cost	80
Variable selling and administrative cost	60
Allocated fixed selling and administrative cost	?

To achieve a target price of $450 per humidifier, the markup percentage on total unit cost is 12%.

Required:
A. Calculate the fixed selling and administrative cost allocated to each humidifier.
B. For each of the following bases, determine the appropriate percentage markup on cost that will result in a target price of $450 per humidifier: (1) variable manufacturing cost, (2) absorption manufacturing cost, and (3) total variable cost. (Round percentages to the nearest one-hundredth of a percent.)

LO: 3 Type: A

Answer:
A. Price = total unit cost + (markup percentage x total unit cost)
$450 = X + (0.12 x X)
$450 = 1.12X
$401.79 = X

Because the total unit cost is $401.79, the allocated fixed selling and administrative cost would be $21.79 ($401.79 - $240.00 - $80.00 - $60.00).

B.

Method	Price	Cost Basis	Markup	Markup Percent
1. Variable manufacturing cost	$450	$240	$210	87.50%
2. Absorption manufacturing cost	450	320	130	40.63%
3. Total variable cost	450	300	150	50.00%

Cost-Plus Pricing

70. Hirsh, Inc., sells a single product. The following information relates to the year just ended:

    Number of units sold: 40,000
    Variable cost per unit: $200
    Total fixed cost: $2,400,000
    Operating income: $3,800,000

    Required:
    A. Compute the company's selling price.
    B. Compute the percentage markup on total cost. Round your answer to two decimal places.
    C. Assume that Hirsh desired to change its practice of computing a markup on total cost to a markup on variable cost. If the company wants to hold selling price constant, would the markup percentage increase or decrease? By how much?

    LO: 3 Type: A, N

    Answer:
    A. The company's total cost is $10,400,000 [(40,000 units x $200) + $2,400,000], resulting in sales revenue of $14,200,000 ($10,400,000 + $3,800,000). The selling price is therefore $355 ($14,200,000 ÷ 40,000 units).

    B. The total cost per unit is $260 [$200 + ($2,400,000 ÷ 40,000 units)], resulting in a $95 markup ($355 - $260). Each unit is thus marked up by 36.54% of total cost ($95 ÷ $260).

    C. Because the base for computing the markup is smaller, the percentage markup must increase to produce the same sales price. The markup on variable cost must equal $155 to derive a $355 selling price ($355 - $200), or 77.5% ($155 ÷ $200). The net result is a hike of 40.96% (77.50% - 36.54%).

Straightforward Target Costing, Value Engineering

71. Argosy, Inc., uses target costing and will soon enter a very competitive marketplace in which it will have limited influence over the prices that are charged. Management and consultants are working to fine-tune the company's sole service, which hopefully will generate a 12% return (profit) on the firm's $24,000,000 asset investment. The following information is available:

    Hours of service to be provided: 34,000
    Anticipated variable cost per service hour: $30
    Anticipated fixed cost: $2,560,000 per year

    Required:
    A. How much profit must Argosy produce to achieve a 12% return?
    B. Calculate the revenue per hour that Argosy must generate to achieve a 12% return.
    C. Assume that prior to entering the marketplace, management conducted a planning exercise to determine whether a 14% return could be attained in year no. 2. Can the company achieve this return if (a) competitive pressures dictate a maximum selling price of $195 per hour and (b) service hours, variable cost per service hour, and fixed costs are the same as the amounts anticipated in year no. 1? Show calculations.
    D. If your answer to part "C" is "no," suggest and briefly describe a procedure that Argosy might use to achieve desired results.

    LO: 5, 8 Type: A, N

    Answer:
    A. Argosy's target profit is $2,880,000 ($24,000,000 x 12%).

    B. Total revenues must be sufficient to cover costs and produce the target profit. Thus, revenues equal $6,460,000 [(34,000 hours x $30) + $2,560,000 + $2,880,000]. The revenue per hour must be $190 ($6,460,000 ÷ 34,000 hours).

    C. Argosy's target profit is $3,360,000 ($24,000,000 x 14%). Total revenues must equal $6,940,000 [(34,000 hours x $30) + $2,560,000 + $3,360,000], and the revenue per hour must be $204.12 ($6,940,000 ÷ 34,000 hours).

    No. A 14% return requires that Argosy produce revenue per service hour of $204.12, which is in excess of the $195 maximum market price.

    D. To achieve a 14% return and a $195 revenue-per-hour figure, the company must trim its costs. Argosy could use value engineering, a technique that utilizes information collected about a service's design and associated processes. The goal is to examine the design and processes and then identify improvements that would produce cost savings.

Analysis of Business Decision; Target Costing

72. Ratner and Associates develops hotels in resort locations. The company is exploring the construction of a new facility that would have significant meeting and banquet space for conventions and conferences, and sleeping rooms that average 850 square feet. The accounting department estimates that land and building costs will amount to $60 and $120 per square foot of floor area, respectively. Other expenditures during construction for interest, real estate taxes, and general overhead are expected to total 35% of land and construction cost.

    Once basic construction is completed, Ratner anticipates per-room initial expenditures for:

Sleeping room furnishings and accessories	$16,000
Supplies	1,900
Marketing	5,500

    The accounting department suggests that 10% be added to the total of all preceding costs to allow for estimation errors. Construction is anticipated to take two years.

    Ratner's pricing policy is consistent with that of industry leaders, namely, to set a room rate equal to 1% of $1,000 of cost. Upon completion, comparable facilities are expected to charge $240 per day.

    Required:
    A. Compute the total cost of a sleeping room at the new facility.
    B. Is the company's room rate competitive? Briefly explain.
    C. Ratner desires to enter this market by adhering to the industry standard and charging a competitive room rate. If needed, the firm will look for ways to cut expenditures. Briefly explain the difference between cost-plus pricing and target costing.
    D. Other than operating costs and room revenues, what else should Ratner consider before a final decision is made about the facility?

    LO: 3, 5 Type: A, N

Answer:

A.	Land: 850 square feet x $60	$ 51,000
	Construction: 850 square feet x $120	102,000
	Subtotal	$153,000
	Interest, taxes, and overhead: $153,000 x 35%	53,550
	Furnishings and accessories	16,000
	Supplies	1,900
	Marketing	5,500
	Subtotal	$229,950
	Estimation errors: $229,950 x 10%	22,995
	Total	$252,945

B. The rate may or may not be competitive, depending on whether the estimation errors materialize. The going market rate is $240 per day, while Ratner's rate will range between $229.95 and $252.95.

C. With target costing, a firm first determines a competitive market price to charge for its good or service and then subtracts an appropriate profit margin. The result is a targeted cost figure, which may require that a process be redesigned through an approach known as value engineering. In contrast, cost-plus pricing begins with a firm's costs and adds a markup to arrive at the selling price.

D. The facility is being designed to accommodate conferences and conventions, meaning that significant added revenues and income may result. For example, audio-visual rentals and large-scale dining and liquor sales commonly arise from such events. Furthermore, many things can change during the two-year construction period (e.g., economic downturns and new competitors) that could alter the company's analysis and construction decisions.

Cost-Plus Pricing vs. Target Costing

73. For many years, Orbit Corporation has used a straightforward cost-plus pricing system, marking its goods up approximately 20% of total cost. The company has been profitable; however, it has recently lost considerable business to foreign competitors that have become very aggressive in the marketplace. These firms appear to be using target costing.

An example of Orbit's woes is typified by item no. 710, which has the following unit-cost characteristics: direct materials, $50; direct labor, $90; manufacturing overhead, $40; and selling and administrative expenses, $20. The going market price for an identical product of identical quality is $210, which is below what Orbit is charging.

Required:

A. Contrast cost-plus pricing and target costing.
B. What is Orbit's current selling price for item no. 710?
C. If Orbit used target costing for item no. 710, what must happen to costs if the company desired to meet market prices and maintain its current rate of profit on sales? By how much?

LO: 3, 5 Type: A, N

Answer:

A. Cost-plus pricing begins by computing an item's cost and then adds an appropriate markup. The result is the item's selling price. In contrast, target costing begins by determining an appropriate selling price. A target profit is next subtracted from that price to yield the cost (i.e., the "target cost") that must be achieved.

B. The current selling price is $240: ($50 + $90 + $40 + $20 = $200; $200 x 120% = $240).

C. Orbit's markup is $40 ($240 - $200), which is 16.67% of the current $240 selling price ($40 ÷ $240). To achieve a 16.67% markup on a $210 selling price, the company must reduce its costs by $25.

Selling price	$210
Less: 16.67% markup ($210 x 6.67%)	35
Target cost	$175
Current cost	$200
Less: Target cost	175
Required cost reduction	$ 25

Cost-Plus Pricing vs. Target Costing

74. Athens Corporation manufactures part no. 67, which is used in the production of mountain bikes. Per-unit information about part no. 67 follows.

Prevailing market price	$33
Direct materials	14
Direct labor	6
Manufacturing overhead	7
Selling and administrative expenses	3

Athens has traditionally used a 20% markup on total cost to arrive at a reasonable selling price. The company, though, has noticed a sizable drop in sales volume during the last few quarters, which it attributes to new entrants in the marketplace.

Required:

A. Compute the current selling price of part no. 67.
B. If management desired to meet the prevailing market price and maintain the current rate of profit on sales, what must happen to the company's total manufacturing costs? By how much?
C. Assume that Athens was considering entry into a new market where it would have no influence over the going market price. Would it make more sense for the company to use cost-plus pricing or target costing? Briefly explain.

LO: 3, 5 Type: A, N

Answer:

A. The current selling price is $36: ($14 + $6 + $7 + $3 = $30; $30 x 120% = $36).

B. The company's markup is $6 ($36 - $30), which is 16.67% of the current $36 selling price ($6 ÷ $36). To achieve a 16.67% markup on a $33 selling price, Athens must reduce its costs by $2.50.

Prevailing market price	$33.00
Less: 16.67% markup ($33 x 16.67%)	5.50
Target cost	$27.50
Current cost	$30.00
Less: Target cost	27.50
Required cost reduction	$ 2.50

C. Given that the company cannot control the market price, it makes more sense to use target costing, which begins the overall process with a look at prevailing market prices and conditions. A cost-plus approach might culminate in a suggested price that exceeds that of the competition.

Target Costing, Product Modification

75. Wagner Furniture manufactures easy-to-assemble wooden furniture for home and office. The firm is considering modification of a bookcase, and the company's marketing department surveyed potential buyers regarding five proposed changes (A-E). The buyers' responses, in order of preference, along with Wagner's related unit costs for the modifications, follow.

Order of Preference	Change	Cost
1	A	$7.50
2	D	5.00
3	B	4.00
4	C	1.50
5	E	5.50

The bookcase currently costs $81 to produce and distribute, and Wagner's selling price for this unit averages $108. An analysis of competitive products in the marketplace revealed a variety of features, with some models having all of the changes that Wagner is considering and other models having only a few. The current manufacturers' selling prices on these bookcases averages $120.

Required:

A. Why is there a need in target costing to (a) focus on the customer and (b) have a marketing team become involved with product design?
B. Management desires to earn approximately the same rate of profit on sales that is being earned with the current design.
   1. If Wagner uses target costing and desires to meet the current competitive selling price, what is the maximum cost of the modified bookcase?
   2. Which of the modifications should Wagner consider?
C. Assume that Wagner wanted to add a modification or two that you excluded in your answer to requirement "B2." What process might management adopt to allow the company to make its target profit for the bookcase? Briefly explain.

LO: 5, 8 Type: A, N

Answer:

A. Target costing is market driven, beginning with a determination of the selling price that customers are willing to pay. That price is dependent on the product they purchase and the product's associated features. It is only natural that a marketing team becomes heavily involved in this process, as much of what is done here is based on customer feedback.

B. 1. Wagner currently earns a $27 profit on each bookcase sold ($108 - $81), which translates into a 25% markup on sales ($27 ÷ $108). The current competitive market price is $120, which means that if Wagner maintains the 25% markup, it will earn $30 per unit. The maximum allowable cost is therefore $90 ($120 - $30).

2. Wagner can add $9 of modifications ($90 - $81), giving rise to several options. Customers feel most strongly about change A, which can be adopted either by itself or in conjunction with change C ($7.50 + $1.50 = $9.00). Alternatively, changes D and B can be selected, also adding $9 to total cost ($5.00 + $4.00 = $9.00).

C. Wagner might use value engineering to study the design and production process of both the bookcase as currently manufactured as well as the proposed new features. The goal is to identify improvements and associated reductions in cost that may allow the company to add previously rejected options.

Pricing With Activity-Cost Pools

76. The controller for Halifax Photographic Supply has established the following cost pools and cost drivers:

Activity Cost Pool	Budgeted Overhead Cost	Cost Driver	Budgeted Level for Driver	Pool Rate
Machine setups	$200,000	Number of setups	100	$2,000 per setup
Material handling	100,000	Pounds of raw material	50,000	$2 per pound
Hazardous waste control	50,000	Pounds of hazardous chemicals	10,000	$5 per pound
Quality control	75,000	Number of inspections	1,000	$75 per inspection
Other overhead costs	200,000	Machine hours	20,000	$10 per machine hr.
Total	$625,000			

An order for 1,200 boxes of film-development chemicals has the following production requirements:

Machine setups	8
Pounds of raw materials	16,000
Pounds of hazardous chemicals	None
Inspections	4
Machine hours	400
Direct materials and labor cost	$24,000

Halifax established a target price by adding a 40% markup to total manufacturing cost.

Required:

A. Determine the order's target price by using the activity-cost pools.
B. Assume that Halifax used a single, combined overhead rate based on weight of raw materials.
   1. Determine the predetermined overhead rate.
   2. Determine the expected cost of the order.
   3. Determine the target price.
C. Which approach above ("A" or "B") seems to be a more reasonable method to establish target prices? Explain.

LO: 3, 6 Type: A, N

Answer:

A.

Activity Cost Pool	Number	Rate	Cost
Machine setups	8	$2,000	$ 16,000
Pounds of raw materials	16,000	2	32,000
Pounds of hazardous chemicals	0	5	---
Inspections	4	75	300
Machine hours	400	10	4,000
Subtotal			$ 52,300
Direct materials and labor			24,000
Total cost			$ 76,300
Markup at 40%			30,520
Target price			$106,820

B. 1. Total budgeted overhead ÷ pounds of raw material
$625,000 ÷ 50,000 = $12.50 per pound

2.

Materials and labor	$ 24,000
Overhead ($12.50 x 16,000 pounds)	200,000
Expected cost of the order	$224,000

3.

Expected cost of the order	$224,000
Markup at 40%	89,600
Target price	$313,600

C. The activity-based approach ("A") makes more specific use of the order's characteristics (and cost drivers). While this order would represent 32% of the expected direct materials usage, the order would require only 8% of the setups, 0% of the hazardous waste, 0.4% of the inspections, and 2% of the machine hours. No overhead application method based on any single variable can reflect all this diversity in resource consumption.

Time and Material Pricing

77. Empire Electrical, which installs sophisticated electronic-control systems in new homes, prices jobs by using the time-and-materials method. The following data apply to a job for Ruiz Builders:

Labor hours: 150
Materials cost: $42,000

The following predictions, based on 25,000 direct labor hours, pertain to the company's operations for the year:

Annual overhead costs:	
Material handling and storage	$ 30,000
Other overhead costs	325,000
Annual cost of materials used	500,000
Labor rate per hour, including fringe benefits	31

Empire Electrical adds a markup of $14 per hour on its time charges, but there is no profit markup on material costs.

Required:
Calculate the price for the Ruiz Builders' job.

LO: 9 Type: A

Answer:
Time charges: $31 + ($325,000 ÷ 25,000 hours) + $14 = $58 per hour
Material handling: $30,000 ÷ $500,000 = 6% of material cost

Price quotation for Ruiz Builders:

Labor: 150 hours x $58	$ 8,700
Material: $42,000 x 106%	44,520
Total	$53,220

Time and Material Pricing

78. Quality Exteriors installs stucco on high-priced custom homes, using the time-and-materials method to price jobs for individual builders. Quality anticipates using $250,000 of materials during the year and will incur $15,000 for material handling and storage. Other overhead costs, which are driven by the firm's 18,000 direct labor hours, will total $360,000. Quality pays construction crews $17 per labor hour and adds a markup of $19 per hour on its time charges. There is no profit markup on material cost.

    During the first quarter of the year, Quality performed 24 jobs for Don Henderson Builders, using 3,100 labor hours and $72,000 of materials.

    Required:
    Calculate the amount that Quality would bill Don Henderson Builders for work performed.

    LO: 9 Type: A

    Answer:
    Time charges: $17 + ($360,000 ÷ 18,000 hours) + $19 = $56 per hour
    Material handling: $15,000 ÷ $250,000 = 6% of material cost

    Billing for Don Henderson Builders:

Labor: 3,100 hours x $56	$173,600
Material: $72,000 x 106%	76,320
Total	$249,920

Competitive Bidding

79. Mission Roofing performs roofing services for commercial clients. The company recently submitted a bid of $371,000 to the Shawnee School System, computed as follows:

Construction materials	$ 80,000
Labor costs	170,000
Total direct costs	$250,000
Construction overhead—30% of labor	51,000
Allocated administrative overhead	20,000
Total cost	$321,000

Mission adds a 20% profit margin to all jobs, computed on the basis of total direct cost. In Shawnee's case the profit margin amounted to $50,000 ($250,000 x 20%), producing a bid price of $371,000. Assume that 60% of construction overhead is fixed.

Required:

A. If Mission had excess capacity, what would be the lowest cost total that the company should use when figuring its bid for the district? How can Mission justify this amount?
B. If Mission had no excess capacity, what would be the lowest price that the company should charge?
C. What is the primary benefit and problem of approaching a competitive bid situation with a low-bid philosophy?

LO: 10 Type: A, N

Answer:

A. The cost total would be the incremental cost associated with the job, or $270,400 [($80,000 + $170,000 + ($51,000 x 40%)]. The company has excess capacity; thus, any amount it can receive in excess of $270,400 will provide a positive contribution toward covering the fixed costs and boosting profit. Note: The fixed construction overhead and allocated administrative overhead are ignored here, as these costs will be incurred regardless of whether Mission gets the job.

B. No excess capacity indicates a very strong market, with Mission likely having a steady backlog of work. The company should cover all of its costs, producing a bid of $371,000.

C. A low-bid philosophy will likely translate into additional business, as a firm is successful in its bidding efforts. Unfortunately, if the bids are too low, a firm might not be able to cover its costs.

Competitive Bidding: Capacity and Pricing

80. Jester Corporation, which has a maximum labor capacity of 30,000 hours per month, has considerable flexibility with its customers when it comes to project completion dates. Management is considering the submission of a bid for a job to be performed for the city of Oxford. Costs for the job are as follows:

Raw materials	$140,000
Labor costs	330,000
Variable overhead (20% of labor)	66,000
Fixed overhead (45% of labor)	148,500
Allocated administrative cost	48,000
Total cost	$732,500

Jester's labor force is paid an average of $22 per hour and if the company wins the bid, it will have three months to complete the work. Management adds a 30% profit margin to all jobs, computed on the basis of total variable cost.

Required:

A. Compute the lowest total cost that the company would use when figuring its bid, assuming that Jester has excess capacity.
B. Compute Jester's bid if the company has no excess capacity.
C. Assume that Jester is currently working at 85% of capacity. Does the firm have sufficient time to complete the job? If not, what could the company do if it desires to do business with Oxford?

LO: 10 Type: A, N

Answer:

A. The lowest total cost is the variable cost associated with the job, or $536,000 ($140,000 + $330,000 + $66,000).

B. No excess capacity indicates a very strong market, meaning that Jester should submit a bid that reflects all of its costs. The markup is $160,800, which is based on raw materials, labor, and variable overhead ($140,000 + $330,000 + $66,000 = $536,000; $536,000 x 30% = $160,800). Thus, the bid should be $893,300 ($732,500 + $160,800).

C. Jester has a maximum labor capacity of 90,000 hours (30,000 x 3) during the three months needed for completion of Oxford's work. However, only 15% of this total is available, or 13,500 hours.

   Oxford's job will require 15,000 hours ($330,000 ÷ $22), so the firm lacks sufficient time but not by much. Given that Jester has significant flexibility with existing customers when it comes to project completion, management might possibly delay an existing job's finish date, freeing hours that could be allocated to Oxford. Another possibility might involve overtime or perhaps hiring some temporary workers.

Competitive Bidding: Capacity and Pricing

81. Justin Manufacturing, which produces electrical components, is contemplating submitting a bid for 30,000 units of item no. 54. The bid's cost will be follows:

Raw materials	$ 75,000
Direct labor	120,000
Manufacturing overhead	150,000
Additional set-up costs	3,000
Special device	5,000
Allocated administrative overhead	12,000
Total cost	$365,000

The special device will be purchased for this job and once the job is completed, the device will be discarded.

Justin applies total manufacturing overhead of $5 to each unit (0.5 machine hours at $10 per hour). This figure is based, in part, on budgeted yearly fixed overhead of $1,440,000 and an anticipated volume of 480,000 machine hours (40,000 per month). Justin is presently working at 85% of capacity, and the client needs the order in two months.

Required:

A. Is Justin's current operating environment one of excess capacity or no excess capacity? Briefly explain.
B. If Justin had excess capacity, what would be the lowest cost total that the company should use when figuring its bid for the order?
C. Can Justin produce this order in the required time frame of two months? Explain.
D. Suppose that Justin is in marginal financial health. Explain the benefits and problems of approaching the bidding procedure with (1) a low bid or (2) a high bid.

LO: 10 Type: A, N

Answer:

A. Justin currently has excess capacity, as it is working at 34,000 machine hours per month (40,000 hours x 85%).

B. Justin should cover the incremental costs associated with the order, which are computed as follows:

Raw materials	$ 75,000
Direct labor	120,000
Variable manufacturing overhead*	105,000
Additional set-up cost	3,000
Special device	5,000
Total	$308,000

*Fixed manufacturing overhead is $3 per machine hour ($1,440,000 ÷ 480,000 hours). Thus, variable overhead is $7 per hour ($10 - $3), giving rise to $105,000 (30,000 units x 0.5 hours x $7).

C. No, there is insufficient machine time. Justin has a 40,000-hour capacity each month and has two months to complete the order. Available machine hours total 12,000 (40,000 x 2 x 15%), and the order requires 15,000 hours (30,000 units x 0.5).

D. A low-bid philosophy will likely translate into additional business, as a firm is successful in its bidding efforts. Unfortunately, if the bids are too low, a firm might not be able to cover its costs. In contrast, a high-bid philosophy will assist a company in covering more of its costs if the company wins the bid. Obviously, there is a greater chance for lost business with this approach. In either case, the marginal financial health of the firm may or may not improve.

DISCUSSION QUESTIONS

Relationships in the Economic Profit-Maximizing Model

82. The following questions explore the relationships between total and marginal functions in the economic profit-maximizing (EPM) model:
    A. The total revenue function rises over the range of operating activity portrayed in the text. Why does the marginal revenue function decrease?
    B. What is the behavior of the marginal cost curve?
    C. In the EPM model, where is the profit-maximizing volume level? Explain.

    LO: 2 Type: RC

    Answer:
    A. The total revenue function is increasing at a decreasing rate; consequently, the rate of change in marginal revenue is negative.

    B. The marginal cost curve decreases initially, reflecting economies of scale achieved at relatively low levels of activity. However, at relatively high levels of activity, the marginal cost curve increases because of diseconomies of scale.

    C. The profit-maximizing volume level is at the intersection of the marginal cost and marginal revenue curves.

Target Costing, Cost-Plus Pricing, ABC

83. When pricing products, many companies use target costing and/or cost-plus pricing methods.

    Required:
    A. Briefly explain how target costing is applied to new products.
    B. How does target costing differ from cost-plus pricing?
    C. Can an activity-based costing system be used with target costing? Explain

    LO: 3, 5, 6 Type: RC

Answer:

A. Target costing begins with the likely market price for the new product and subtracts an acceptable profit margin to arrive at the manufacturing cost necessary to achieve the target margin. Then, to achieve the target cost, the product may need to be redesigned and/or re-engineered.

B. In cost-plus pricing, cost is the starting point. An acceptable profit margin is then added to arrive at the desired selling price. In target costing, the manufacturing cost is the target, determined by starting with market price and subtracting a profit margin.

C. Yes. Activity-based costing helps to focus on the various activities required to manufacture a product and the costs of those activities. Hence, it is more useful than traditional volume-based costing systems that spread overhead rather than base overhead assignment on the utilization of specific activities. Generally speaking, the end result is improved costing of goods and/or services.

   Activity-based costing can also help focus attention on non-value-added activities that consume resources and increase a product's cost. Reduction or elimination of these activities can help achieve the product's target cost.

Strategic Pricing of New Products

84. When introducing new products, some companies use price skimming whereas others use penetration pricing.

    Required:

    A. Distinguish between price skimming and penetration pricing.
    B. Is price skimming a viable alternative for most new products? Explain.

    LO: 4 Type: RC, N

    Answer:

    A. Price skimming is designed to obtain a high price per unit at relatively low levels of sales. As the product becomes known and interest in it grows, the price is lowered, thus stimulating sales volume. Penetration pricing, on the other hand, seeks to generate a relatively high level of sales initially in order to achieve a high market share. Such penetration is accomplished through an initial price that is relatively low.

    B. Price skimming is probably not viable for most products. The skimming strategy requires a small core of customers for whom price is unimportant compared to other characteristics of the product—which might be the case with wealthy buyers and/or luxury goods. These customers are willing to pay just about any price to secure the product.

Role of Excess Capacity in Competitive Bidding

85. Wardlaw Company, which experiences considerable seasonal variation in its activity and has a high level of fixed costs, is preparing a bid for a project. This particular project will be done during a slack period of the year.

    Required:
    A. How should the fixed costs be handled in the bidding approach to this project?
    B. Assume that the company wins the bid and performs the job on a profitable basis, consistent with the results as projected in the bid. Several months later, the customer contacts Wardlaw and requests a bid to do another job. This project, however, must be done during a peak season. How should Wardlaw's management respond? How do you think the customer will respond?

    LO: 10 Type: RC, N

    Answer:
    A. Fixed costs should not receive the same emphasis that would be given if the project were to be done during a peak time. Any contribution that this project can make in excess of the direct incremental costs will boost the profit of the company.

    B. The bid for the second project cannot be prepared on the same basis as the bid for the first project because of timing. The requirement to perform the job during a peak season means that the job must provide a sufficient return to make it more attractive than other jobs. In other words, fixed costs should be considered, and the bid price would be higher.

       The customer is likely to be unhappy about the considerable change in bid from the first project. However, if the customer understands the seasonal nature of Wardlaw's business, then perhaps the customer will change its schedule and better "time" its purchases to occur in Wardlaw's slow season.

Antitrust Laws and Pricing

86. A number of antitrust laws have been enacted that affect product pricing.

    Required:
    A. Define price discrimination and predatory pricing.
    B. Assume that a firm has been charged with price discrimination. What role can cost information play in defending the firm's pricing practices?

    LO: 11 Type: RC

    Answer:
    A. Price discrimination involves charging different prices to different customers for the same goods and services when the price differences are not based on variations in production, selling, and/or distribution cost. Predatory pricing, on the other hand, is the practice of reducing a price for a short time in order to enhance demand and then raising the price sharply, often with restricted supply.

    B. Such information can be used to show differences in costs of providing a product or service to customers. For example, a customer that places a few large orders having low quality requirements can be served less expensively than another customer that places many small orders with tight delivery times and exacting quality specifications.