Chapter 15 (Multiple Choice)—Monopoly

MULTIPLE CHOICE

1. Angelo is a wholesale meatball distributor. He sells his meatballs to all the finest Italian restaurants in town. Nobody can make meatballs like Angelo. As a result, his is the only business in town that sells meatballs to restaurants. Assuming that Angelo is maximizing his profit, which of the following statements is true?
   a. Meatball prices will be less than marginal cost.
   b. Meatball prices will equal marginal cost.
   c. Meatball prices will exceed marginal cost.
   d. Meatball prices will be a function of supply and demand and will therefore oscillate around marginal costs.

   ANS: C DIF: Average REF: 322

2. Which of the following statements is (are) true of a monopoly?
   (i) A monopoly has the ability to set the price of its product at whatever level it desires.
   (ii) A monopoly's total revenue will always increase when it increases the price of its product.
   (iii) A monopoly can earn unlimited profits.

   a. (i) only
   b. (ii) only
   c. (i) and (ii)
   d. (ii) and (iii)

   ANS: A DIF: Average REF: 324

3. A natural monopoly occurs when
   a. the product is sold in its natural state (such as water or diamonds).
   b. there are economies of scale over the relevant range of output.
   c. the firm is characterized by a rising marginal cost curve.
   d. production requires the use of free natural resources, such as water or air.

   ANS: B DIF: Average REF: 321

4. Which of the following scenarios best represents a monopoly situation?
   a. Bill and Tom work separately from one another but both sell a very rare form of the same diamond. They are the only sellers of this type of diamond in town.
   b. Tom owns a fishing tackle shop in Miami, Florida, in which he sells the top-of-the-line fishing equipment.
   c. Bill owns the only grocery store in a small community that lies 200 miles from the nearest city.
   d. None of the above adequately represents a monopoly.

   ANS: C DIF: Average REF: 322

Scenario 15-1
Consider the market for water in a small town in the Old West. Assume that the only source of water is the underground aquifer that lies directly below the town. Wells are used to supply water to the entire town.

5. **Refer to Scenario 15-1**. If dozens of residents have their own wells, which of the following statements most adequately describes the behaviour of sellers of water?
   a. Since water is a necessity of life, there will be no decline in the quantity of water consumed, regardless of how high the price is raised.
   b. Sellers will be able to charge a premium for the water.
   c. The price of a gallon of water will exceed its marginal cost.
   d. The price of a gallon of water will be driven to equal its marginal cost.

   ANS: D DIF: Average REF: 324

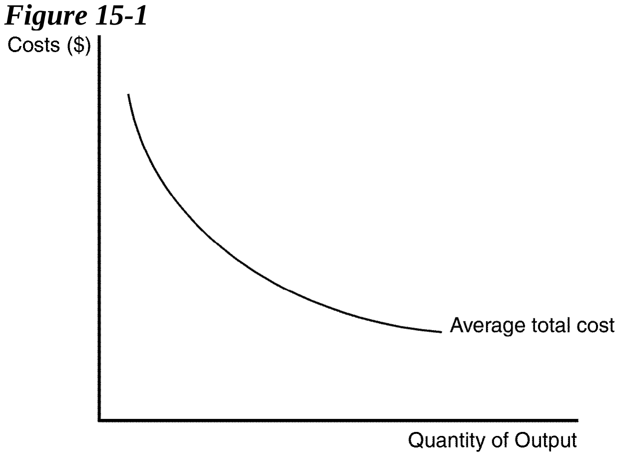
6. **Refer to Scenario 15-1**. Suppose only one resident owns all the wells in town. Which of the following statements is most likely going to be true of the market for water?
   a. The price of a gallon of water will be driven to equal its marginal cost.
   b. The price of a gallon of water will exceed its marginal cost.
   c. Since water is a necessity of life, there will be no decline in the quantity of water consumed, regardless of how high the price is raised.
   d. The seller will be able to earn unlimited profit.

   ANS: B DIF: Average REF: 324

7. **Refer to Scenario 15-1**. Assume that Jack is the sole owner of all the wells in town. He decides to move to a more suitable climate and sells the wells to a couple of dozen different town residents.
   a. The town residents will likely be better off.
   b. The price of water is likely to fall.
   c. The individual water sellers will not have as much pricing power as Jack had.
   d. All of the above are correct.

   ANS: D DIF: Average REF: 324

Figure 15-1



8. **Refer to Figure 15-1**. The shape of the average total cost curve reveals information about the nature of the barrier to entry that might exist in a monopoly market. Which of the following monopoly types best coincides with the figure?
   a. ownership of a key resource by a single firm
   b. natural monopoly
   c. government-created monopoly
   d. None of the above are correct.

   ANS: B DIF: Average REF: 321

9. **Refer to Figure 15-1**. The shape of the average total cost curve in the figure suggests an opportunity for a profit-maximizing monopolist to take advantage of
   a. economies of scale.
   b. diseconomies of scale.
   c. diminishing marginal product.
   d. increasing marginal cost.

   ANS: A DIF: Easy REF: 321

Scenario 15-2
Consider a transportation corporation named C.R. Evans that has just completed the development of a new subway system in a medium-sized town in Western Canada. Currently, there are plenty of seats on the subway, and it is never crowded. Its capacity far exceeds the needs of the city. After just a few years of operation, the shareholders of C.R. Evans experienced incredible rates of return on their investment, due to the profitability of the corporation.

10. **Refer to Scenario 15-2**. Which of the following statements are most likely to be true?
    (i) New entrants to the market know they will earn a smaller piece of the market than C.R. Evans currently has.
    (ii) C.R. Evans is most likely experiencing increasing average total cost.
    (iii) C.R. Evans is a natural monopoly.

    a. (i) and (ii)
    b. (ii) and (iii)
    c. (i) and (iii)
    d. All of the above are correct.

    ANS: C DIF: Average REF: 321

11. **Refer to Scenario 15-2**. C.R. Evans may continue to be a monopolist in the subway transportation industry only if
    a. population growth leads to an overcrowding of the subway cars.
    b. there are no new entrants to the market.
    c. demand for transportation services decreases.
    d. All of the above are correct.

    ANS: B DIF: Average REF: 321

12. It is possible for a natural monopoly to evolve into a competitive market
    a. as a market expands.
    b. as patent and copyright laws change.
    c. as technological advances give rise to economies of scale.
    d. None of the above are correct; it is not possible for a natural monopoly to evolve into a competitive market.

    ANS: A DIF: Average REF: 321

13. When a monopolist increases the number of units it sells, there are two effects on revenue. They are the
    a. demand effect and the supply effect.
    b. competition effect and the cost effect.
    c. competitive effect and the monopoly effect.
    d. output effect and the price effect.

    ANS: D DIF: Average REF: 325

14. Because a monopolist is the sole producer in its market, it can necessarily alter the price of its good
    (i) without affecting the quantity sold.
    (ii) without affecting its average total cost.
    (iii) by adjusting the quantity it supplies to the market.

    a. (ii) only
    b. (iii) only
    c. (i) and (ii)
    d. (i) and (iii)

    ANS: B DIF: Average REF: 325

15. Which of the following is an impossible feat for a monopolist to accomplish?
    a. control the price of its good
    b. charge a higher price and continue to sell the same quantity
    c. operate at a point on the upper half of the demand curve
    d. All of the above are correct.

    ANS: B DIF: Average REF: 325

Table 15-1

Quantity	Price	Total Revenue	Average Revenue	Marginal Revenue
1	35	35		
2		64	32	29
3	29			
4				17
5	23			11
6		120		
7	17			-1
8				-7
9		99	11	-13
10		8	80	

16. **Refer to Table 15-1**. If the monopolist sells 8 units of its product, how much total revenue will it receive from the sale?
    a. 40
    b. 112
    c. 164
    d. It cannot be determined from the information provided.

    ANS: B DIF: Average REF: 325

17. **Refer to Table 15-1**. If the monopolist wants to maximize its revenue, how many units of its product should it sell?
    a. 4
    b. 5
    c. 6
    d. 8

    ANS: C DIF: Average REF: 325

18. **Refer to Table 15-1**. When 4 units of output are produced and sold, what is average revenue?

a. 17
b. 21
c. 23
d. 26

ANS: D DIF: Average REF: 325

19. **Refer to Table 15-1**. What is the marginal revenue for the monopolist for the sixth unit sold?
    a. 3
    b. 5
    c. 11
    d. 17

    ANS: B DIF: Average REF: 325

20. **Refer to Table 15-1**. Assume this monopolist's marginal cost is constant at $11. What quantity of output (Q) will it produce and what price (P) will it charge?
    a. Q = 4, P = $27
    b. Q = 4, P = $25
    c. Q = 5, P = $23
    d. Q = 7, P = $17

    ANS: C DIF: Average REF: 325

21. A monopolist's marginal revenue is less than price because
    (i) to sell additional units of the good, the price charged on all units must decrease.
    (ii) with the sale of an additional unit, the monopolist receives less revenue for each of the previous units it planned to sell.
    (iii) of the upward-sloping average revenue curve.

    a. (i) and (ii)
    b. (ii) and (iii)
    c. (i) and (iii)
    d. All of the above are correct.

    ANS: A DIF: Challenging REF: 325

22. Which of the following statements is true?
    (i) When a competitive firm sells an additional unit of output, its revenue increases by an amount less than the price.
    (ii) When a monopoly firm sells an additional unit of output, its revenue increases by an amount less than the price.
    (iii) Average revenue is the same as price for both competitive and monopoly firms.

    a. (i) only
    b. (iii) only
    c. (i) and (ii)
    d. (ii) and (iii)

    ANS: D DIF: Challenging REF: 325

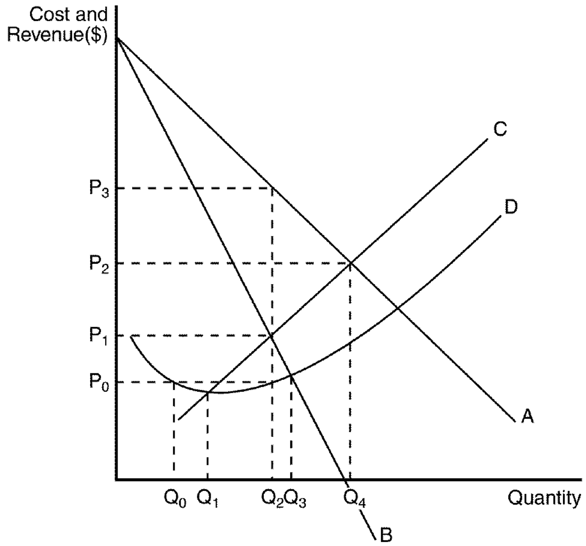
23. For a monopoly firm, the shape and position of the demand curve play a role in determining
    (i) the profit-maximizing price.
    (ii) the shape and position of the marginal cost curve.
    (iii) the shape and position of the marginal revenue curve.

a. (i) and (ii)
b. (ii) and (iii)
c. (i) and (iii)
d. All of the above are correct.

ANS: C DIF: Average REF: 325

The figure below reflects the cost and revenue structure for a monopoly firm. Use it to answer the following questions.

Figure 15-3



24. **Refer to Figure 15-3**. A profit-maximizing monopoly's total revenue is equal to
   a. $P_3 \times Q_2$.
   b. $P_2 \times Q_4$.
   c. $(P_3 - P_0) \times Q_2$.
   d. $(P_3 - P_0) \times Q_4$.

   ANS: A DIF: Average REF: 325

25. **Refer to Figure 15-3**. A profit-maximizing monopoly's total cost is equal to
   a. $(P_1 - P_0) \times Q_2$.
   b. $P_0 \times Q_1$.
   c. $P_0 \times Q_2$.
   d. $P_0 \times Q_3$.

   ANS: C DIF: Average REF: 325

26. **Refer to Figure 15-3**. A profit-maximizing monopoly's profit is equal to
   a. $P_3 \times Q_2$.
   b. $P_2 \times Q_4$.
   c. $(P_3 - P_0) \times Q_2$.
   d. $(P_3 - P_0) \times Q_4$.

   ANS: C DIF: Average REF: 325

27. **Refer to Figure 15-3**. Profit on a typical unit sold for a profit-maximizing monopoly would equal

a. $P_2 - P_1$.
b. $P_2 - P_0$.
c. $P_3 - P_2$.
d. $P_3 - P_0$.

ANS: D DIF: Average REF: 325

28. **Refer to Figure 15-3**. At the profit-maximizing level of output,
a. marginal revenue is equal to P_3.
b. marginal cost is equal to P_3.
c. average revenue is equal to P_3.
d. None of the above are correct.

ANS: C DIF: Average REF: 325

29. As a monopolist increases the quantity of output it sells, the price consumers are willing to pay for the good
a. is unaffected.
b. decreases.
c. increases.
d. There is not enough information given in answer the question.

ANS: B DIF: Easy REF: 325

30. Competitive firms differ from monopolies in which of the following ways?
(i) Competitive firms do not have to worry about the price effect lowering their total revenue.
(ii) Marginal revenue for a competitive firm equals price, while marginal revenue for a monopoly is less than the price it is able to charge.
(iii) Monopolies must lower their price in order to sell more of their product, while competitive firms do not.

a. (i) and (ii)
b. (ii) and (iii)
c. (i) and (iii)
d. All of the above are correct.

ANS: D DIF: Challenging REF: 322

31. The monopolist's profit-maximizing quantity of output is determined by the intersection of which of the following two curves?
a. marginal cost and demand
b. marginal cost and marginal revenue
c. average total cost and marginal revenue
d. average variable cost and average revenue

ANS: B DIF: Average REF: 325

32. For a monopoly firm, the average revenue curve
a. starts at the same point on the vertical axis as the marginal revenue curve.
b. is downward sloping.
c. is the same as the demand curve.
d. All of the above are correct.

ANS: D DIF: Average REF: 325

33. Suppose a certain firm has a monopoly on electricity. To sell the 100th unit of electricity, the firm must experience
   a. less marginal revenue on the 100th unit of electricity than it experienced on the 99th unit.
   b. more average revenue on the 100th unit of electricity than it experienced on the 99th unit.
   c. more total revenue on the 100 units of electricity than it experienced on the first 99 units.
   d. All of the above are correct.

   ANS: A DIF: Average REF: 325

34. The profit-maximization problem for a monopolist differs from that of a competitive firm in which of the following ways?
   a. A competitive firm maximizes profit at the point where marginal revenue equals marginal cost; a monopolist maximizes profit at the point where marginal revenue exceeds marginal cost.
   b. A competitive firm maximizes profit at the point where average revenue equals marginal cost; a monopolist maximizes profit at the point where average revenue exceeds marginal cost.
   c. For a competitive firm, marginal revenue at the profit-maximizing level of output is equal to marginal revenue at all other levels of output; for a monopolist, marginal revenue at the profit-maximizing level of output is smaller than it is for larger levels of output.
   d. For a profit-maximizing competitive firm, thinking at the margin is much more important than it is for a profit-maximizing monopolist.

   ANS: B DIF: Challenging REF: 325

35. A monopoly firm can sell 150 units of output for $12.00 per unit. Alternatively, it can sell 151 units of output for $11.95 per unit. The marginal revenue of the 151st unit of output is
   a. $-11.95.
   b. $-4.45.
   c. $4.45.
   d. $11.95.

   ANS: C DIF: Average REF: 325

Scenario 15-3
A monopoly firm maximizes its profit by producing 500 units output (so Q = 500). At that level of output, its marginal revenue is $30, its average revenue is $40, and its average total cost is $34.

36. **Refer to Scenario 15-3**. The firm's profit-maximizing price is
   a. $30.
   b. between $30 and $34.
   c. between $34 and $40.
   d. $40.

   ANS: D DIF: Average REF: 325

37. **Refer to Scenario 15-3**. At Q = 500, the firm's total revenue is
   a. $15,000.
   b. $17,500.
   c. $20,000.
   d. $22,500.

   ANS: C DIF: Average REF: 325

38. **Refer to Scenario 15-3.** The firm's maximum profit is

a. $2,000.
b. $3,000.
c. $4,000.
d. $6,000.

ANS: B DIF: Average REF: 325

39. **Refer to Scenario 15-3**. At Q = 500, the firm's marginal cost is
a. less than $30.
b. $30.
c. $34.
d. greater than $34.

ANS: B DIF: Average REF: 325

40. A reduction in a monopolist's fixed costs would
a. decrease the profit-maximizing price and increase the profit-maximizing quantity produced.
b. increase the profit-maximizing price and decrease the profit-maximizing quantity produced.
c. not effect the profit-maximizing price or quantity.
d. possibly increase, decrease or not effect profit-maximizing price and quantity, depending on the elasticity of demand.

ANS: C DIF: Challenging REF: 325

41. The socially efficient level of production occurs where the marginal cost curve intersects which of the following curves?
a. average variable cost
b. average total cost
c. demand
d. marginal revenue

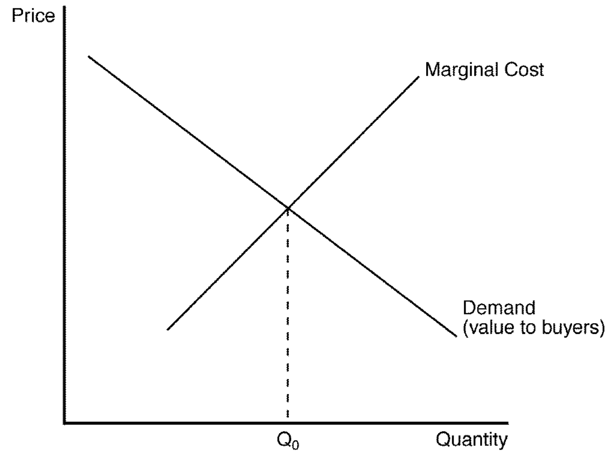
ANS: C DIF: Average REF: 331

42. Consider a profit-maximizing monopoly pricing under the following conditions: The profit-maximizing price charged for goods produced is $16.The intersection of the marginal revenue and marginal cost curves occurs where output is 10 units and marginal cost is $8. The socially efficient level of production is 12 units. The demand curve and marginal cost curves are linear. What is the deadweight loss?
a. $4
b. $8
c. $16
d. $64

ANS: B DIF: Average REF: 330

The figure below depicts the demand and marginal cost curves of a profit-maximizing monopolist. Use the figure to answer the following questions.

Figure 15-4



43. **Refer to Figure 15-4**. A benevolent social planner would cause the monopoly firm to operate at an output level
    a. below Q_0.
    b. above Q_0.
    c. equal to Q_0.
    d. equal to zero.

    ANS: C DIF: Average REF: 332

44. **Refer to Figure 15-4**. If the monopoly operates at an output level below Q_0, then an increase in output toward Q_0 (but not so large an increase as to exceed Q_0) would
    a. raise the price and raise total surplus.
    b. lower the price and raise total surplus.
    c. raise the price and lower total surplus.
    d. lower the price and lower total surplus.

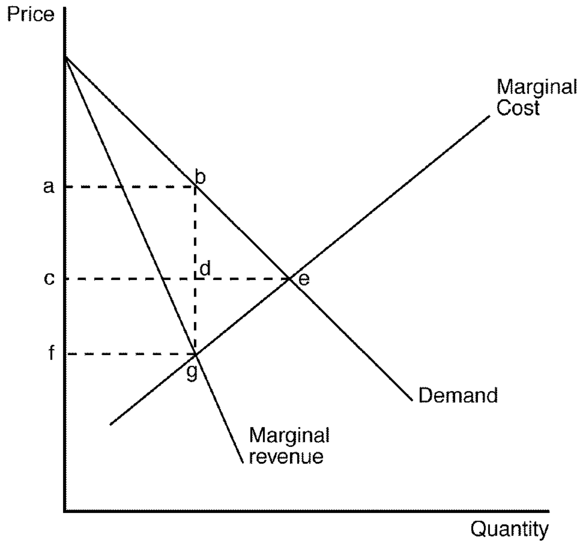
    ANS: B DIF: Average REF: 332

45. Inefficiency arises from a monopoly because
    a. the monopoly firm earns an excessively large profit.
    b. some buyers will refrain from buying the good, due to the high price.
    c. consumers who buy the goods feel exploited.
    d. All of the above are correct.

    ANS: B DIF: Average REF: 331

The figure below depicts the demand, marginal revenue and marginal cost curves of a profit-maximizing monopolist. Use the figure to answer the following questions.

Figure 15-5



46. **Refer to Figure 15-5**. Which of the following areas represents the deadweight loss due to monopoly pricing?
    a. triangle bde
    b. triangle bge
    c. rectangle acdb
    d. rectangle cfgd

    ANS: B DIF: Average REF: 330

47. **Refer to Figure 15-5**. Total surplus lost due to monopoly pricing is reflected in
    a. triangle bde.
    b. triangle bge.
    c. rectangle acdb.
    d. rectangle cfgd.

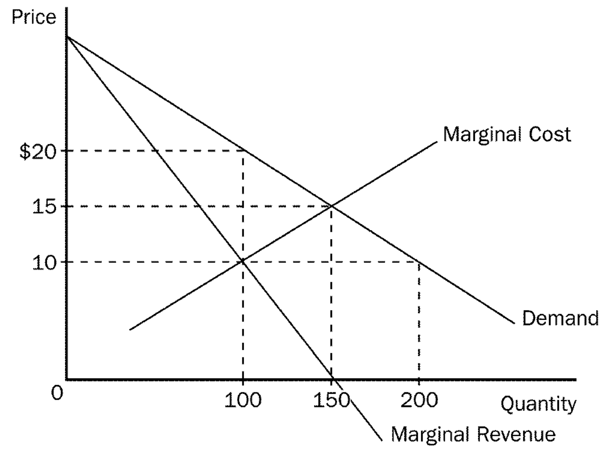
    ANS: B DIF: Average REF: 331

48. Which of the following statements is correct?
    a. The benefits that accrue to a monopoly firm's owners are equal to the costs that are incurred by consumers of that firm's product.
    b. The deadweight loss that arises in monopoly stems from the fact that the profit-maximizing monopoly firm produces a quantity of output that exceeds the socially-efficient quantity.
    c. The deadweight loss caused by monopoly is similar to the deadweight loss caused by a tax on a product.
    d. The main social problem caused by monopoly is monopoly profit.

    ANS: C DIF: Challenging REF: 332

Refer to the diagram below to answer the following questions.

Figure 15-6



49. **Refer to Figure 15-6**. To maximize total surplus, a benevolent social planner would choose which of the following outcomes?
    a. 100 units of output and a price of $10 per unit
    b. 150 units of output and a price of $10 per unit
    c. 150 units of output and a price of $15 per unit
    d. 200 units of output and a price of $10 per unit

    ANS: C DIF: Average REF: 332

50. **Refer to Figure 15-6**. To maximize its profit, a monopolist would choose which of the following outcomes?
    a. 100 units of output and a price of $10 per unit
    b. 100 units of output and a price of $20 per unit
    c. 150 units of output and a price of $15 per unit
    d. 200 units of output and a price of $20 per unit

    ANS: B DIF: Average REF: 332

51. **Refer to Figure 15-6**. The monopolist's maximum profit
    a. is $800.
    b. is $1,000.
    c. is $1,250.
    d. cannot be determined from the diagram.

    ANS: D DIF: Average REF: 332

52. **Refer to Figure 15-6**. The deadweight loss caused by a profit-maximizing monopoly amounts to
    a. $150.
    b. $200.
    c. $250.
    d. $300.

    ANS: C DIF: Challenging REF: 332

53. Policymakers are discussing various proposals regarding how to deal with natural monopolies. Senator Huff wants to regulate natural monopolies by equating price with average total cost. Huff contends that such a policy will ensure that monopolies make every effort to reduce costs. Senator Puff wants the government to own natural monopolies. Puff argues that government-owned monopolies usually do a better job of holding down costs than privately owned monopolies. Which senator's argument is correct?
    a. Senator Huff

b. Senator Puff
c. both Senators
d. neither Senator

ANS: D DIF: Average REF: 335

54. A firm cannot price discriminate if
a. its marginal revenue is constant for all levels of output.
b. it operates in a competitive market.
c. it cannot group buyers according to their willingness to pay.
d. All of the above are correct.

ANS: B DIF: Average REF: 340

55. Price discrimination adds to social welfare in the form of
(i) increased total surplus.
(ii) increased profits to the monopolist.
(iii) increased consumer surplus.

a. (i) and (ii)
b. (ii) and (iii)
c. (i) and (iii)
d. All of the above are correct.

ANS: A DIF: Average REF: 340