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# BPE_MIC1 Microeconomics 1 – Fall Semester 2010

**Preliminary Final Exam 2 - 13.12.2010, 9:00 - 10:30 a.m.** **Test Version: B**

**Guidelines and Rules:**
1. The test setup has 8 pages. It is your responsibility to check that you have all the pages.
2. The time limit is 90 minutes.
3. The exam is worth 50 points.
4. You are NOT allowed to use any books or notes.
5. Any violation of academic honesty will be punished to the fullest extent possible.
6. At most one exam-taker is allowed to be outside the room at one time.
7. Write the answers in the spaces corresponding to the respective questions in the setup sheet.
10. When ready, **submit** the filled setup sheet with **your name** written on the first page.

This exam will count for 50% of your final grade from the course. Good luck!

**Fill the gaps**
*Complete each statement.*

1. If a group of oligopolists fail to collude the price will be lower than the price in _____ but higher than the price in _____.
2. If Europeans import cars, it is because the _____ of producing them elsewhere is lower than in Europe.
3. The demand for labor is considered to be _____ because it is preconditioned by the demand for the end product that labor produces.
4. A _____ is a firm whose business requires so large initial fixed cost that its average total cost curve continually declines at least to the quantity that satisfies the entire market.
5. In perfectly competitive factor market the price of the factor equals _____.
6. A factor exhibits _____ if the increase in output generated from an additional unit of input decreases as the quantity of the input increases.
7. The height of the supply curve at any quantity is equal to the seller's _____.
8. _____ firms produce at less than efficient scale and charge prices in excess of marginal cost.
9. If prisoners' dilemma game is played once, the _____ for both players is to confess.
10. An increase in price will increase total revenue if the demand is _____.

**True/False**
*Indicate whether the statement is true or false.*

____ 11. An increase in the price of pizza will shift the demand curve for pizza to the left.

____ 12. Although economists and accountants treat many costs differently, they both treat the cost of capital the same.

____ 13. The economic field of industrial organization examines how firms' decisions about prices and quantities depend on the market conditions they face.

____ 14. Even with market power, monopolists cannot achieve any level of profit they desire because they will sell lower quantities at higher prices.

____ 15. The principle of comparative advantage states that, regardless of the price at which trade takes place, everyone will benefit from trade if they specialize in the production of the good for which they have a comparative advantage.

____ 16. When two goods are perfect complements, the indifference curves are right angles.

____ 17. In order to calculate the value of the marginal product of labor, a manager must know the marginal product of labor and the wage rate of the worker.

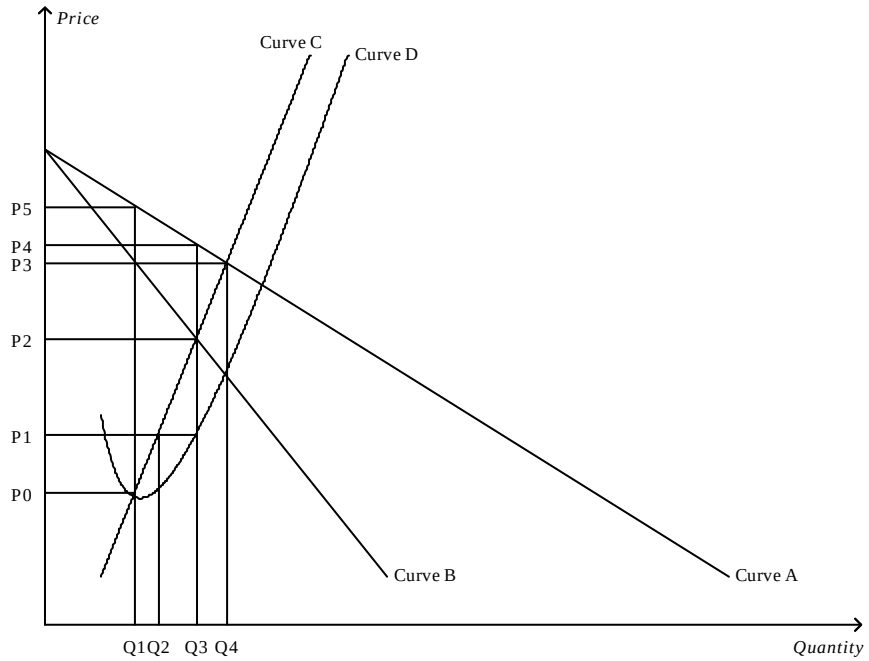
____ 18. The willingness to pay is the maximum amount that a buyer will pay for a good and measures how much the buyer values the good.

____ 19. A profit-maximizing firm in a competitive market will increase production when average revenue exceeds marginal cost.

____ 20. Monopolistic competition is characterized by many buyers and sellers, product differentiation, and barriers to entry.

**Multiple Choice**
*Identify the choice that best completes the statement or answers the question.*

____ 21. ***Figure 15-5***




**Refer to Figure 15-5**. A profit-maximizing monopoly's profit is equal to
a. (P4-P1) x Q3.
b. (P4-P2) x Q3.
c. (P5-P0) x Q1.
d. P4 x Q3.

____ 22. **Refer to Figure 15-5**. At the profit-maximizing level of output,
a. average revenue is equal to P4.
b. average total cost is equal to P0.
c. marginal cost is equal to P3.
d. marginal revenue is equal to P3.

____ 23. **Refer to Figure 15-5**. Profit on a typical unit sold for a profit-maximizing monopoly would equal
a. P4-P3.
b. P4-P1.
c. P5-P0.
d. P4-P2.

____ 24. Kelly and David are both capable of repairing cars and cooking meals. Which of the following scenarios is *not* possible?
a. Kelly has a comparative advantage in repairing cars and in cooking meals.
b. Kelly has a comparative advantage in repairing cars and David has a comparative advantage in cooking meals.
c. Kelly has an absolute advantage in repairing cars and David has an absolute advantage in cooking meals.
d. David has an absolute advantage in repairing cars and in cooking meals.

____ 25. If the price elasticity of demand for a good is 0.8, then which of the following events is consistent with a 4 percent decrease in the quantity of the good demanded?
a. a 0.2 percent increase in the price of the good
b. a 5 percent increase in the price of the good
c. a 4.8 percent increase in the price of the good
d. a 3.2 percent increase in the price of the good

____ 26. Which of the following statements is correct?
a. Although the logic of self-interest increases a duopoly's level of output above the monopoly level, it does not push the duopolists to reach the competitive level.
b. Although the logic of self-interest decreases a duopoly's price below the monopoly price, it does not push the duopolists to reach the competitive price.
c. If duopolists successfully collude, then their combined output will be equal to the output that would be observed if the market were a monopoly.
d. All of the above are correct.

____ 27. Which of the following statements is correct?
a. Economic theory suggests that there is a close link between productivity and real wages, but evidence from the U.S. economy fails to confirm that link.
b. Neither economic theory nor evidence from the U.S. economy suggests that there is a close link between productivity and real wages.
c. Evidence from the U.S. economy suggests a close link between productivity and real wages, but economic theory provides no basis for such a link.
d. Both economic theory and evidence from the U.S. economy suggest that there is a close link between productivity and real wages.

____ 28. When a market is monopolistically competitive, the typical firm in the market is likely to experience a
a. positive or negative profit in the short run and a zero profit in the long run.
b. zero profit in the short run and in the long run.
c. zero profit in the short run and a positive or negative profit in the long run.
d. positive profit in the short run and in the long run.

____ 29. ***Table 17-4.*** The information in the table below shows the total demand for high-speed Internet subscriptions in a small urban market. Assume that each company that provides these subscriptions incurs an annual fixed cost of $200,000 (per year) and that the marginal cost of providing an additional subscription is always $80.

| Quantity | Price (per year) |
|---|---|
| 0 | $320 |
| 2,000 | $280 |
| 4,000 | $240 |
| 6,000 | $200 |
| 8,000 | $160 |
| 10,000 | $120 |
| 12,000 | $ 80 |
| 14,000 | $ 40 |
| 16,000 | $ 0 |

**Refer to Table 17-4**. Suppose there is only one high-speed Internet service provider in this market and it seeks to maximize its profit. The company will

a. sell 10,000 subscriptions and charge a price of $120 for each subscription.
b. sell 12,000 subscriptions and charge a price of $80 for each subscription.
c. sell 6,000 subscriptions and charge a price of $200 for each subscription.
d. sell 8,000 subscriptions and charge a price of $160 for each subscription.

____ 30. **Refer to Table 17-4**. Assume there are two profit-maximizing high-speed Internet service providers operating in this market. Further assume that they are able to collude on the quantity of subscriptions that will be sold and on the price that will be charged for subscriptions. How much profit will each company earn?

a. $210,000
b. $160,000
c. $120,000
d. $80,000

____ 31. **Refer to Table 17-4**. Assume that there are two profit-maximizing high-speed Internet service providers operating in this market. Further assume that they are not able to collude on the price and quantity of subscriptions to sell. How much profit will each firm earn when this market reaches a Nash equilibrium?

a. $200,000
b. $150,000
c. $225,000
d. $120,000

____ 32. **Refer to Table 17-4**. Assume there are two high-speed Internet service providers that operate in this market. If they are able to collude on the quantity of subscriptions that will be sold and on the price that will be charged for subscriptions, then their agreement will stipulate that

a. each firm will charge a price of $120 and each firm will sell 5,000 subscriptions.
b. each firm will charge a price of $200 and each firm will sell 3,000 subscriptions.
c. each firm will charge a price of $100 and each firm will sell 3,000 subscriptions.
d. each firm will charge a price of $160 and each firm will sell 4,000 subscriptions.

____ 33. **Refer to Table 17-4**. Assume there are two high-speed Internet service providers operating in this market. Further assume that they are not able to collude on the price and quantity of subscriptions to sell. What price will they charge for a subscription when this market reaches a Nash equilibrium?

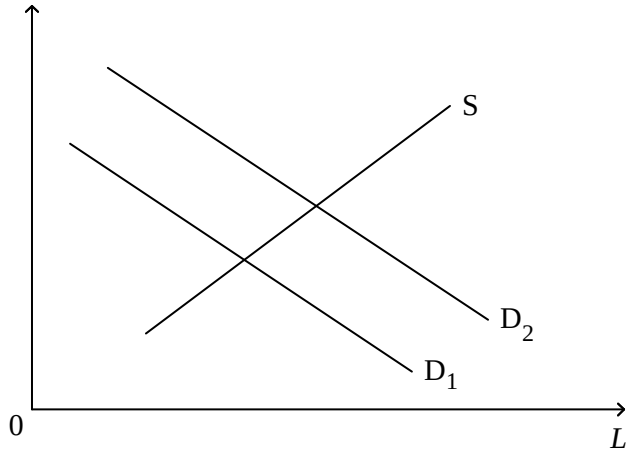
a. $120
b. $160
c. $200
d. $240

____ 34. **Refer to Table 17-4**. Assume there are two profit-maximizing high-speed Internet service providers operating in this market. Further assume that they are not able to collude on the price and quantity of subscriptions to sell. How many subscriptions will be sold altogether when this market reaches a Nash equilibrium?

a. 8,000
b. 6,000
c. 12,000
d. 10,000

____ 35. ***Figure 18-4***

This figure below shows the labor market for automobile workers. The curve labeled *S* is the labor supply curve, and the curves labeled $D_1$ and $D_2$ are the labor demand curves. On the horizontal axis, *L* represents the quantity of labor in the market.




**Refer to Figure 18-4.** Which of the following events would most likely explain a shift of the labor-demand curve from $D_2$ back to $D_1$?

a. A technological advance increased the marginal product of automobile workers.
b. The price of automobiles decreased.
c. An increase in the demand for automobiles.
d. A large number of immigrants entered the automobile-worker market.

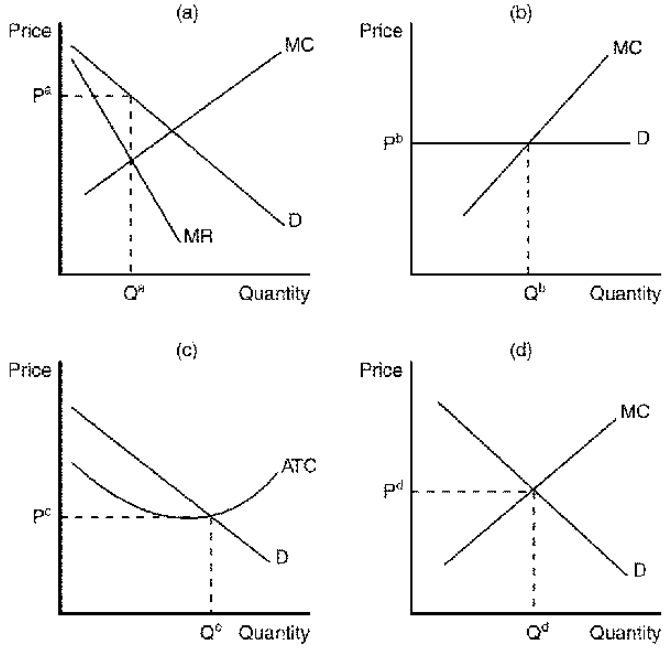
____ 36. If an oligopolist is part of a cartel that is collectively producing the monopoly level of output, then that oligopolist has the incentive to lower production with the aim of

a. increasing profits for itself, regardless of the impact on profits for the group of firms as a whole.
b. increasing profits for the group of firms as a whole.
c. lowering prices.
d. None of the above is correct.

____ 37. On a 100-acre farm, a farmer is able to produce 3,000 bushels of wheat when he hires 2 workers. He is able to produce 4,400 bushels of wheat when he hires 3 workers. Which of the following possibilities is consistent with the property of diminishing marginal product?

a. The farmer is able to produce 5,800 bushels of wheat when he hires 4 workers.
b. The farmer is able to produce 6,000 bushels of wheat when he hires 4 workers.
c. The farmer is able to produce 5,600 bushels of wheat when he hires 4 workers.
d. Any of the above could be correct.

____ 38. ***Figure 16-6***




**Refer to Figure 16-6**. The firm depicted in panel b faces a horizontal demand curve. If panel b depicts a profit-maximizing firm,

a. it could be operating in either a perfectly competitive market or in a monopolistically competitive market.
b. it would not have excess capacity in its production as long as it is earning zero economic profit.
c. the firm can always raise its profit by increasing production since consumers will buy as much as the firm can produce.
d. it is able to choose the price at which it sells its product.

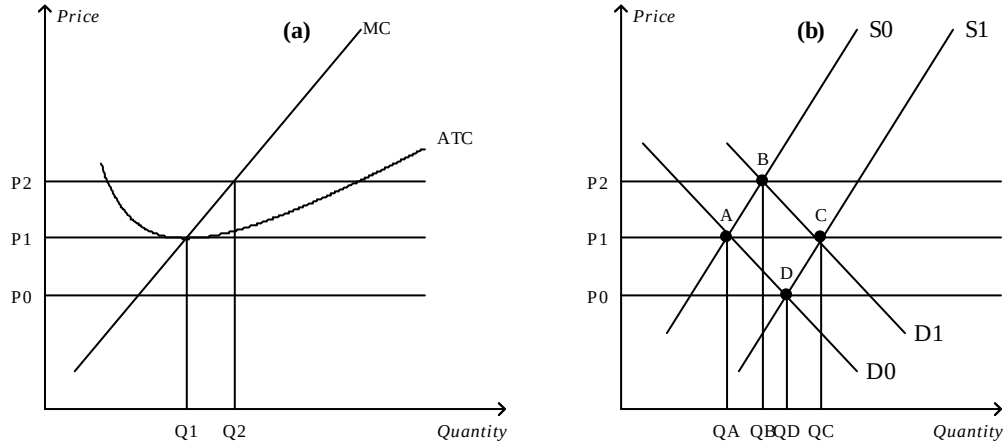
____ 39. If "too much choice" is a problem for consumers, it would occur in which market structure(s)?

a. monopolistic competition
b. perfect competition
c. monopoly
d. perfect competition and monopolistic competition

____ 40. Suppose that 500 candy bars are demanded at a particular price. If the price of candy bars rises from that price by 10 percent, the number of candy bars demanded falls to 480. Using the midpoint approach to calculate the price elasticity of demand, it follows that the

a. price elasticity of demand for candy bars in this price range is about 0.41.
b. demand for candy bars in this price range is unit elastic.
c. price elasticity of demand for candy bars in this price range is about 0.24.
d. price increase will decrease the total revenue of candy bar sellers.

____ 41. ***Figure 14-9***




**Refer to Figure 14-9**. Assume that the market starts in equilibrium at point A in panel (b). An increase in demand from D0 to D1 will result in

a. an eventual increase in the number of firms in the market and a new long-run equilibrium at point C.
b. rising prices and falling profits for existing firms in the market.
c. a new market equilibrium at point D.
d. falling prices and falling profits for existing firms in the market.

____ 42. If Shawn can produce donuts at a lower opportunity cost than Sue, then

a. Sue has a comparative advantage in the production of donuts.
b. Shawn should not produce donuts.
c. Shawn has a comparative advantage in the production of donuts.
d. Shawn is capable of producing more donuts than Sue in a given amount of time.

____ 43. Which of the following statements is correct for a monopolist?

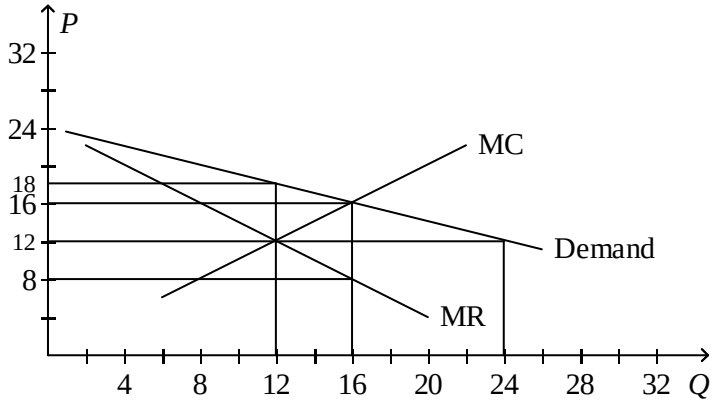
i) The firm maximizes profits by equating marginal revenue with marginal cost.
ii) The firm maximizes profits by equating price with marginal cost.
iii) Demand equals marginal revenue.
iv) Average revenue equals price.

a. i), ii), iii), and iv)
b. and iv) only
c. i), iii), and iv) only
d. i), ii), and iv) only
e. CHOICE BLANK

____ 44. Lois is a self-employed pet sitter. She can make 20 "housecalls" per day. She is considering hiring her sister Dora to work for her. Both she and Dora can visit 35 houses per day. What is Dora's marginal product?

a. 22.5
b. 15
c. 55
d. 35

____ 45. **Figure 16-1.** The figure is drawn for a monopolistically competitive firm.




**Refer to Figure 16-1.** The firm's profit-maximizing level of output is

a. 12 units.
c. 8 units.
b. 24 units.
d. 16 units.

____ 46. If a seller in a competitive market chooses to charge more than the going price, then

a. buyers will make purchases from other sellers.
b. the owners of the raw materials used in production would raise the prices for the raw materials.
c. the sellers' profits definitely would increase.
d. other sellers would also raise their prices.

____ 47. A monopolistically competitive firm faces the following demand schedule for its product:

| **Price ($)** | 10 | 9 | 8 | 7 | 6 | 5 | 4 | 3 | 2 | 1 |
|---|---|---|---|---|---|---|---|---|---|---|
| **Quantity** | 2 | 4 | 6 | 9 | 11 | 13 | 15 | 17 | 19 | 21 |

The firm has total fixed costs of $20 and a constant marginal cost of $2 per unit. The firm will maximize profit with

a. 6 units of output.
c. 13 units of output.
b. 11 units of output.
d. 9 units of output.

____ 48. ***Table 7-7***
The only four producers in a market have the following cost:

| **Seller** | **Cost** |
|---|---|
| Charlie | $50 |
| Quinn | $100 |
| Wrex | $150 |
| Maxine | $200 |

**Refer to Table 7-7.** If the sellers bid against each other for the right to sell the good to a consumer, then the producer surplus will be

a. $50 or slightly less.
c. $200 or slightly more.
b. $0 or slightly more.
d. $150 or slightly less.

____ 49. **Refer to Table 7-7.** If Charlie, Quinn, and Wrex sell the good, and the resulting producer surplus is $300, then the price must have been

a. $200.
c. $600.
b. $300.
d. $450.

____ 50. Laura consumes only beer and chips. Her indifference curves are all bowed inward. Consider the bundles (2,6), (4,4), and (6,2). If Laura is indifferent between (2,6) and (6,2), then Laura must

a. be indifferent between (4,4) and (6,2).
c. prefer (2,6) to (4,4).
b. prefer (6,2) to (4,4).
d. prefer (4,4) to (6,2).

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**Answer Section**

**COMPLETION**

1. ANS: monopoly, perfect competition

   PTS: 1
2. ANS: opportunity cost

   PTS: 1
3. ANS: derived demand

   PTS: 1
4. ANS: natural monopolist

   PTS: 1
5. ANS: the value of its marginal product

   PTS: 1
6. ANS: diminishing marginal productivity

   PTS: 1
7. ANS: marginal cost

   PTS: 1
8. ANS: Monopolistically competitive

   PTS: 1
9. ANS: dominant strategy

   PTS: 1
10. ANS: inelastic

    PTS: 1

**TRUE/FALSE**

11. ANS: F PTS: 1 DIF: 2 REF: 4-2
    TOP: Demand curve MSC: Applicative
12. ANS: F PTS: 1 DIF: 2 REF: 13-1
    TOP: Economic profit | Accounting profit MSC: Interpretive
13. ANS: T PTS: 1 DIF: 2 REF: 13-0
    TOP: Industrial organization MSC: Interpretive
14. ANS: T PTS: 1 DIF: 2 REF: 15-0
    TOP: Monopoly MSC: Interpretive
15. ANS: F PTS: 1 DIF: 2 REF: 3-2
    TOP: Comparative advantage MSC: Interpretive
16. ANS: T PTS: 1 DIF: 1 REF: 21-2
    TOP: Perfect complements MSC: Interpretive

17. ANS: F PTS: 1 DIF: 2 REF: 18-1
    TOP: Value of the marginal product MSC: Interpretive
18. ANS: T PTS: 1 DIF: 1 REF: 7-1
    TOP: Willingness to pay MSC: Definitional
19. ANS: T PTS: 1 DIF: 2 REF: 14-1
    TOP: Average revenue MSC: Interpretive
20. ANS: F PTS: 1 DIF: 1 REF: 16-1
    TOP: Monopolistic competition MSC: Definitional

**MULTIPLE CHOICE**

21. ANS: A PTS: 1 DIF: 2 REF: 15-2
    TOP: Profit MSC: Analytical
22. ANS: A PTS: 1 DIF: 2 REF: 15-2
    TOP: Average revenue MSC: Interpretive
23. ANS: B PTS: 1 DIF: 2 REF: 15-2
    TOP: Profit MSC: Analytical
24. ANS: A PTS: 1 DIF: 2 REF: 3-2
    TOP: Comparative advantage MSC: Applicative
25. ANS: B PTS: 1 DIF: 2 REF: 5-1
    TOP: Price elasticity of demand MSC: Applicative
26. ANS: D PTS: 1 DIF: 2 REF: 17-1
    TOP: Duopoly MSC: Interpretive
27. ANS: D PTS: 1 DIF: 2 REF: 18-3
    TOP: Productivity | Wages MSC: Interpretive
28. ANS: A PTS: 1 DIF: 2 REF: 16-2
    TOP: Short-run equilibrium | Long-run equilibrium MSC: Analytical
29. ANS: C PTS: 1 DIF: 3 REF: 17-1
    TOP: Monopoly MSC: Applicative
30. ANS: B PTS: 1 DIF: 3 REF: 17-1
    TOP: Duopoly | Collusion MSC: Applicative
31. ANS: D PTS: 1 DIF: 3 REF: 17-1
    TOP: Nash equilibrium MSC: Applicative
32. ANS: B PTS: 1 DIF: 3 REF: 17-1
    TOP: Duopoly | Collusion MSC: Applicative
33. ANS: B PTS: 1 DIF: 3 REF: 17-1
    TOP: Nash equilibrium MSC: Applicative
34. ANS: A PTS: 1 DIF: 3 REF: 17-1
    TOP: Nash equilibrium MSC: Applicative
35. ANS: B PTS: 1 DIF: 2 REF: 18-3
    TOP: Labor-market equilibrium MSC: Interpretive
36. ANS: D PTS: 1 DIF: 2 REF: 17-1
    TOP: Cartels MSC: Analytical
37. ANS: C PTS: 1 DIF: 2 REF: 13-2
    TOP: Diminishing marginal product MSC: Analytical
38. ANS: B PTS: 1 DIF: 2 REF: 16-2
    TOP: Profit maximization MSC: Interpretive
39. ANS: A PTS: 1 DIF: 2 REF: 16-2
    TOP: Monopolistic competition MSC: Interpretive

40. ANS: A PTS: 1 DIF: 3 REF: 5-1
TOP: Midpoint method | Total revenue | Price elasticity of demand
MSC: Applicative
41. ANS: A PTS: 1 DIF: 2 REF: 14-3
TOP: Long-run supply curve MSC: Analytical
42. ANS: C PTS: 1 DIF: 2 REF: 3-2
TOP: Comparative advantage MSC: Applicative
43. ANS: E PTS: 1 DIF: 3 REF: 15-2
TOP: Marginal revenue | Average revenue MSC: Interpretive
44. ANS: B PTS: 1 DIF: 2 REF: 13-2
TOP: Marginal product MSC: Analytical
45. ANS: A PTS: 1 DIF: 2 REF: 16-2
TOP: Profit maximization MSC: Applicative
46. ANS: A PTS: 1 DIF: 1 REF: 4-1
TOP: Competitive markets MSC: Definitional
47. ANS: D PTS: 1 DIF: 3 REF: 16-2
TOP: Profit maximization MSC: Applicative
48. ANS: A PTS: 1 DIF: 3 REF: 7-2
TOP: Price | Cost | Producer surplus MSC: Analytical
49. ANS: A PTS: 1 DIF: 3 REF: 7-2
TOP: Price | Cost | Producer surplus MSC: Analytical
50. ANS: D PTS: 1 DIF: 2 REF: 21-2
TOP: Indifference curves MSC: Analytical