

**MULTIPLE CHOICE. Choose the one alternative that best completes the statement or answers the question.**

- 1) The main difference between a short-run production function and a long-run production function is that: 1) \_\_\_\_\_
- A) in the short-run production function all of the inputs are variable, in the long-run production function all of the inputs are fixed.  
B) in the short-run production function the amount of capital is held constant, in the long-run production function the amount of labor is held constant.  
C) in the short-run production function at least one of the inputs is variable, in the long-run production function all of the inputs are fixed.  
D) in the short-run production function at least one of the inputs is fixed, in the long-run production function all of the inputs are variable.
- 2) A production method that relies on large quantities of labor and smaller quantities of capital equipment is referred to as a: 2) \_\_\_\_\_
- A) capital-intensive method of production.  
B) technology-intensive method of production.  
C) labor-intensive method of production.  
D) variable-input-intensive method of production.
- 3) Assume a firm is currently employing 20 units of capital and 100 units of labor in its production process. Assume also that the marginal product of the 20<sup>th</sup> unit of capital is 40 units of output, the marginal product of the 100<sup>th</sup> unit of labor is 10 units of output and the per unit prices of capital and labor are \$20 and \$10, respectively. In this case, in order to minimize its costs of production the firm should: 3) \_\_\_\_\_
- A) hire more labor and less capital.      B) hire less capital and less labor.  
C) hire more capital and more labor.      D) hire more capital and less labor.
- 4) Which of the following would be least likely to increase a firm's labor productivity? 4) \_\_\_\_\_
- A) Competition with other firms that employ "best practices."  
B) An increase in the number of firms competing in a particular market.  
C) A high degree of input substitution possibilities.  
D) Restrictions on foreign investment in the country's manufacturing sector.
- 5) Long-run average cost is defined as: 5) \_\_\_\_\_
- A) the minimum average cost of producing any level of output when all inputs are variable.  
B) the minimum average cost of producing any level of output when the amount of capital is varied and all other inputs are held constant.  
C) the minimum average cost of producing any level of output when all inputs are fixed.  
D) the average of the short-run costs associated with each amount of capital employed by the firm.
- 6) The negatively-sloped part of the long-run average total cost curve is due to which of the following? 6) \_\_\_\_\_
- A) The increase in productivity that results from specialization.  
B) Diminishing returns.  
C) The difficulties encountered in coordinating the many activities of a large firm.  
D) Diseconomies of scale.
- 7) A downward shift in an industry's LRAC curve could be caused by all of the following *except*: 7) \_\_\_\_\_

- A) a decrease in prices of the productive inputs employed by the firms in the industry.
- B) an increase in short-run average total costs at each scale of operation.
- C) an improvement in technology at each scale of operation.
- D) the effects of "learning by doing."

8) The "minimum efficient scale" of operation in an industry is defined as: 8) \_\_\_\_\_

- A) the scale of operation at which economies of scale are exhausted.
- B) the smallest number of firms that could effectively meet demand for an industry's output.
- C) the smallest plant size that can be operated by firms in the industry.
- D) the scale of operation by firms in an industry that is least efficient.

9) The positively-sloped part of the long-run average total cost curve is due to which of the following? 9) \_\_\_\_\_

- A) The firm being able to take advantage of large-scale production techniques as it expands its output.
- B) Diminishing returns.
- C) Diseconomies of scale.
- D) The increase in productivity that results from specialization.

10) If an industry is characterized by substantial economies of scale, as each firm in the industry expands its production capacity we will observe: 10) \_\_\_\_\_

- A) a decrease in the average total costs of production.
- B) a decrease in the total fixed costs of production.
- C) an increase in marginal costs.
- D) a decrease in the marginal product of labor.

11) Which of the following statements about isoquants is *false*? 11) \_\_\_\_\_

- A) They show all the combinations of two inputs that result in the same level of output.
- B) They represent higher levels of output the farther they are from the origin.
- C) They show all the combinations of two inputs that yield the same cost of production.
- D) They are usually convex to the origin.

12) All else constant, a decrease in the price of capital would cause the total amount of output that could be produced with a fixed amount of spending to \_\_\_\_\_. This would result in a movement to a \_\_\_\_\_ isoquant. 12) \_\_\_\_\_

- A) increase; lower
- B) decrease; higher
- C) decrease; lower
- D) increase; higher

**TRUE/FALSE. Write 'T' if the statement is true and 'F' if the statement is false.**

13) The fact that a firm is using a capital-intensive method of production means that input substitution is not possible. 13) \_\_\_\_\_

14) Assume a firm is producing 1000 units of a good by using two inputs, capital and labor, whose per unit prices are \$50 and \$20. Assume also that the marginal physical product of the last unit of capital is 25 and the marginal physical product of the last unit of labor is 15. In order to minimize its costs of production, the firm should adjust its combination of inputs by employing more labor and less capital. 14) \_\_\_\_\_

15) A firm is more likely to use a labor-intensive method of production when the relative amount of available labor is greater than the available amount of capital. 15) \_\_\_\_\_

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16) Perfectly competitive firms are said to be "small." Which of the following best describes this smallness? 16) \_\_\_\_\_

- A) The individual firm faces a downward-sloping demand curve.
- B) The individual firm is unable to affect market price through its output decisions.
- C) The individual firm must have fewer than 10 employees.
- D) The individual firm has assets of less than \$2 million.

17) The market structure that is most similar to the model of perfect competition is: 17) \_\_\_\_\_

- A) oligopoly.
- B) monopsony
- C) monopoly.
- D) monopolistic competition.

18) Which of the following is *not* a characteristic of a price-taking firm? 18) \_\_\_\_\_

- A) Average Revenue = Price.
- B) A negatively-sloped demand curve.
- C) Total Revenue =  $P \times Q$ .
- D) Marginal Revenue = Price.

19) In order to maximize its profits, a price-taking firm should produce the level of output at which: 19) \_\_\_\_\_

- A) marginal revenue = marginal cost.
- B) total revenue = total cost.
- C) variable revenue = variable cost.
- D) average revenue = average cost.

20) Assume that at the current market price, a perfectly competitive firm's profit-maximizing level of output yields total revenues that are just equal to total costs. Which of the following statements applies to this firm? 20) \_\_\_\_\_

- A) The firm should shut down right now.
- B) The firm should continue to operate in the short run to minimize losses, but shut down if things don't improve over the long run.
- C) The firm should increase its explicit costs to reduce its tax burden.
- D) The firm is earning zero economic profit and should continue to operate.

**TRUE/FALSE. Write 'T' if the statement is true and 'F' if the statement is false.**

21) Although an improvement in technology would enable perfectly competitive firms to earn a positive economic profit in the short run, entry by new firms would ensure that those profits are eliminated over time. 21) \_\_\_\_\_

22) Assume the firms in a perfectly competitive market are initially earning zero economic profits. An increase in supply would cause existing firms' economic profits to increase. 22) \_\_\_\_\_

**MULTIPLE CHOICE. Choose the one alternative that best completes the statement or answers the question.**

23) All of the following are strategies a firm with market power can adopt to increase its profits over time *except*: 23) \_\_\_\_\_

- A) setting price equal to the marginal costs of production.
- B) erecting barriers to entry.
- C) influencing the regulatory process.
- D) mergers with, and acquisitions of, competing firms.

24) All of the following are possible characteristics of a monopoly *except*: 24) \_\_\_\_\_

- A) the firm is a price taker.
- B) there is a single firm.
- C) the firm produces a unique product.
- D) the existence of some advertising.

25) Assume that when price is \$20, quantity demanded is 9 units, and when price is \$19, quantity demanded is 10 units. Based on this information, what is the marginal revenue resulting from an increase in output from 9 units to 10 units?

25) \_\_\_\_\_

A) \$20 B) \$19 C) \$10 D) \$1

Use Figure 8.1, which represents the situation faced by a monopolist, to answer the following questions.

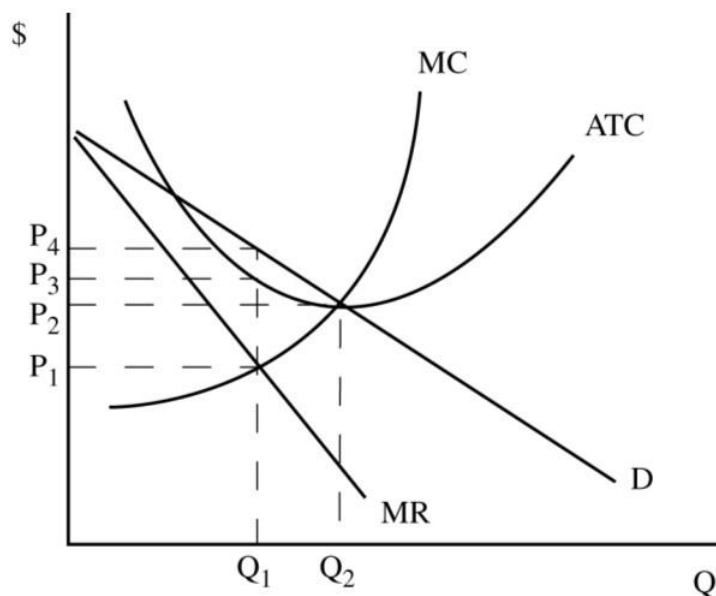


Figure 8.1

26) For the firm in Figure 8.1, the profit-maximizing (loss-minimizing) price and level of output are: 26) \_\_\_\_\_

A)  $P_1$  and  $Q_1$ . B)  $P_2$  and  $Q_2$ . C)  $P_3$  and  $Q_1$ . D)  $P_4$  and  $Q_1$ .

27) The firm depicted in Figure 8.1 is: 27) \_\_\_\_\_

- A) earning a zero economic profit.
- B) incurring an economic loss but it should continue to operate in the short run so long as price exceeds average variable costs.
- C) earning a positive economic profit.
- D) incurring an economic loss and should shut down.

28) Assuming instead that the market depicted in Figure 8.1 is perfectly competitive, the equilibrium price and output would be: 28) \_\_\_\_\_

A)  $P_1$  and  $Q_1$ . B)  $P_3$  and  $Q_1$ . C)  $P_2$  and  $Q_2$ . D)  $P_4$  and  $Q_1$ .

29) Which of the following statements is correct? 29) \_\_\_\_\_

- A) The monopolist's supply curve is its MC curve.
- B) The monopolist's supply curve is that section of its MC curve that lies above its MR curve.
- C) The monopolist's supply curve is that section of its MC curve that lies above its AVC curve.
- D) The monopolist does not have a supply curve.

30) In comparing monopoly to a perfectly competitive market, which of the following is correct? 30) \_\_\_\_\_

- A) Employment will be higher under monopoly.
- B) Equilibrium quantity will be higher under perfect competition.
- C) Market price will be higher under perfect competition.

D) Consumers will be better off with the monopoly.