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Economics 201

Midterm #2: Practice Midterm

1. Firms are able to organize in one of 3 organizational forms which of these forms experiences unlimited liability:
a. sole proprietorship
b. partnership
c. corporation
d. answers a and b are correct
e. answers a, b and c are correct

2. Which of the following situations is one where employers would incur the transaction cost called *monitoring costs*:
a. when entering into a contract with other individuals
b. where employees have an incentive to "slack" rather than work hard
c. where owners recognize that operators maximizing their own net benefit does not allow the firm to maximize profits
d. answers b and c are correct
e. answers a, b and c are correct

3. The best definition of bounded rationality is:
a. when it is rational to increase output until reaching a certain point
b. when a person makes rational economic decisions on the basis of limited information
c. when a person makes rational economic decisions in order to increase profits
d. when it is rational to erect boundaries in order to become more efficient

The following production function (below) represents the output of an individual firm. This equation should be used to answer Questions #4-5 (Q = output, L = labor).

$$Q = 2\sqrt{10L}$$

4. If L = 40, then what is the average product of labor (APL) in this situation?
a. APL = 40
b. APL = 0.5
c. APL = 1.0
d. APL = 400
e. none of the above

5. Based on the equation above, if L increases from 40 to 41, then what is the marginal product of labor (MPL) in this situation (round your answer to the nearest tenth)?

a. APL = 0.1

b. APL = 40.5

c. APL = 2.0

d. APL = 0.5

e. none of the above

6. Assume that when hiring labor, a perfectly competitive firm faces the following (below):

Labor	Output
0	0
1	20
2	35
3	45
4	50
5	52

This table tells you that when this firm hires 1 unit of labor, the firm can produce 20 units of output. When hiring 2 units of labor, the firm can produce 35 units of output, and so on. Assume further that the firm sells its output for $2 per unit, and that the firm pays each unit of labor $20.

If the firm hires labor 1 unit at a time, then how many units of labor should this firm hire?

a. hire 1 unit of labor

b. hire 2 units of labor

c. hire 3 units of labor

d. hire 4 units of labor

e. none of the above

7. If we are discussing the typical APL and MPL graph, and MPL < APL, then:

a. APL would be increasing

b. MPL would be increasing

c. APL would be decreasing

d. the firm is experiencing diminishing marginal returns

e. both c and d are correct

8. Which of the following is the best explanation of diminishing marginal returns:

a. as a firm's output increases, the firm's marginal cost will decrease

b. as a firm hires more labor, the firm's get increasingly smaller increases in output

c. as a firm hires more labor, the firm's output will decrease

d. as a firm's output increases, the firm will hire fewer units of labor

9. Which of the following occurs when a firm produces the maximum possible output:
a. the firm's APL is equal to zero
b. the firm's APL is negative
c. the firm's MPL is negative
d. the firm's MPL is equal to zero
e. the firm's average cost is equal to zero

10. If a firm's MC begins increasing, then which of the following will occur:
a. the firm's marginal product of labor is decreasing
b. the firm's marginal product of labor is increasing
c. the firm's marginal product of labor is at a maximum
d. the firm's marginal product of labor will remain constant

Questions 11-14 all relate to the following equations (where TC = total costs, MC = marginal cost, and q = output):

$$TC = 80 \qquad [if\ q = 0]$$
$$TC = 100 + 20q^2 \qquad [if\ q > 0]$$
$$MC = 40q \qquad [if\ q > 0]$$

11. If this firm produces 10 units of output (i.e. q = 10), then what is the average cost (AC)?
a. 2100
b. 80
c. 210
d. 400
e. none of the above

12. If this firm produces 10 units of output (i.e. q = 10), then what is the average variable cost (AVC)?
a. 10
b. 40
c. 200
d. 2000
e. none of the above

13. If this firm produces 10 units of output (i.e. q = 10), then what is the average fixed cost (AFC)?
a. 10
b. 40
c. 200
d. 2000
e. none of the above

14. If this firm produces 10 units of output (i.e. q = 10), then what is the recoverable fixed cost?
a. 80
b. 100
c. 2100
d. 400
e. none of the above

15. Based on the characteristics of Perfect Competition and what those characteristics imply about firms in this type of market, which of the following is **not** something you would observe in a perfectly competitive market:
a. each firm produces only a small amount of overall market output
b. if any individual firm increases or decreases their output, then the market price will change
c. firms are price takers
d. firms produce goods that are all identical
e. firms in the market earn zero economic profit in the long run, but not necessarily in the short run

16. Which of the following characteristics imply that a perfectly competitive firm will earn zero economic profit in the long run:
a. firms have no barriers to entry or exit
b. firms all produce homogeneous goods
c. firms in this type of market are all price takers
d. firms in this type of market will produce where $P = MC$

17. If the market price falls below the breakeven point, then which of the following will necessarily occur:
a. the firm will exit in the short run
b. the firm will earn a loss in the short run
c. the firm will raise the price in the short run
d. the firm will earn positive profits in the short run
e. the firm will increase their output in the short run

18. Which of the following occurs when a perfectly competitive firm earns zero economic profit:
a. if firms are producing where $P > MC$
b. if firms are producing where $P = MC$
c. if firms are producing at the break even point
d. if firms are producing above the break even point
e. all of the above

19. Which of the following will allow a perfectly competitive firm to maximize its profits:
a. set their own (firm) price at the point where that price is equal to marginal cost
b. produce where the firm's marginal cost is equal to their own average cost
c. set their own (firm) price at the point where it is equal to average cost
d. produce where the market price is equal to marginal cost

20. Which of the following is a situation that a profit maximizing perfectly competitive firm would face in the long run:
a. $P > AC$
b. $P = AC$
c. $P < AC$
d. $P > MC$

Questions 21-24 relate to the following equations and correspond with the costs of a profit maximizing, perfectly competitive firm.

$$TC = \$25 \qquad \text{[if } q = 0\text{]}$$
$$TC = 100 + 2q + q^2 \qquad \text{[if } q > 0\text{]}$$
$$MC = 2 + 2q \qquad \text{[if } q > 0\text{]}$$

21. If the market price is $16, what are each firm's profits?
a. $163
b. $0
c. -$51
d. $112
e. none of the above

22. If the market price is $28, what are each firm's profits?
a. -$339
b. -$295
c. $69
d. $364
e. none of the above

23. What are the sunk costs of this firm?
a. $100
b. $2
c. $0
d. $25
e. none of the above

24. Which of the following is true when the market sets a price of $22
a. this firm is producing below the breakeven point and the shut down point
b. this firm is producing at the shut down point
c. this firm is producing below the breakeven point, but above the shut down point
d. this firm is producing at the breakeven point
e. this firm is producing above the breakeven point

25. If the market demand increases within a perfectly competitive market and we're in a situation where $P > AC$, then which of the following is most likely to occur over the long run if demand is expected to remain unchanged:
a. firms will contract in order to lower the price
b. firms will exit the market and the market supply curve will shift right
c. firms will enter the market and the market supply curve will shift left
d. there will be no changes over the long run until price rise
e. firms will enter the market and the market supply curve will shift right