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

1) In the short run,  
   A) there are no variable costs.  
   B) at least one resource is fixed.  
   C) all resources are variable.  
   D) all resources are fixed.

2) Which of the following is characteristic of the long run?  
   A) The firm’s plant is fixed.  
   B) All resources can be varied.  
   C) It must exceed 12 months in length.  
   D) All of the above answers are correct.

3) Marginal product is  
   A) total amount of output produced.  
   B) total amount of output produced divided by the quantity of labor employed.  
   C) total amount of output produced divided by price of the output.  
   D) the increase in output that results from a one-unit increase in the quantity of labor employed with all other inputs remaining the same.

4) Average product is  
   A) total amount of output produced divided by price of the output.  
   B) total amount of output produced divided by the quantity of labor employed.  
   C) the increase in output that results from a one-unit increase in the quantity of labor employed with all other inputs remaining the same.  
   D) total amount of output produced.

5) Using the data in the above table, what is the total product of three employees?  
   A) 2 pizzas per hour  
   B) 3 pizzas per hour  
   C) 12 pizzas per hour  
   D) 4 pizzas per hour

6) Using the data in the above table, what is the marginal product of the third employee?  
   A) 4 pizzas per hour  
   B) 12 pizzas per hour  
   C) 3 pizzas per hour  
   D) 2 pizzas per hour
7) Using the data in the above table, what is the average product of three employees?  
   A) 12 pizzas per hour  
   B) 3 pizzas per hour  
   C) 4 pizzas per hour  
   D) 2 pizzas per hour

8) A firm's total product curve shows  
   A) how the cost of the fixed resources change when output changes.  
   B) how the quantity of output changes when the quantity of labor changes.  
   C) that inefficiency is not possible.  
   D) that in the long run the firm must adjust the quantity of all the resources it employs.

9) At that amount of output where diminishing marginal returns first sets in,  
   A) average product will begin to decline.  
   B) total product will begin to decline.  
   C) marginal product will begin to decline.  
   D) all of the above

10) The law of diminishing returns makes it clear that as more a variable input is employed,  
    A) in the long-run the marginal product of the variable input will eventually fall.  
    B) in the short-run the marginal product of the variable input will eventually fall.  
    C) in the short-run the marginal product of the variable input will eventually rise.  
    D) in the long-run the marginal product of the variable input will eventually rise.

11) The law of diminishing returns occurs because  
    A) adding more and more workers continues to decrease output.  
    B) the marginal product of an additional worker is greater than the marginal product of the previous worker.  
    C) total production decreases as more of the variable input is used.  
    D) the productivity of the variable input, such as labor, depends in part on the amount of fixed inputs such as capital.

12) Total variable cost  
    A) does not change as output changes.  
    B) increases as output increases.  
    C) decreases as output increases.  
    D) initially decreases and then increases as output increases.

13) As output increases, average fixed cost  
    A) decreases continuously.  
    B) decreases, then increases.  
    C) remains constant.  
    D) increases, then decreases.

14) Marginal cost tends to  
    A) first decrease and then increase as the quantity produced is increased.  
    B) always increase as the quantity produced is increased.  
    C) always decrease as the quantity produced is increased.  
    D) first increase and then decrease as the quantity produced is increased.

15) Marginal cost is equal to  
    A) the change in total cost divided by the change in total revenue.  
    B) the change in total cost divided by the change in quantity.  
    C) quantity divided by total cost.  
    D) total cost divided by quantity.
16) When marginal cost is greater than average total cost, the
A) marginal cost decreases as output increases.
B) average total cost decreases as output increases.
C) marginal cost does not change as output increases.
D) average total cost increases as output increases.

17) In the figure above, curve C is the ________ curve.
A) average variable cost
B) average fixed cost
C) marginal cost
D) average total cost

18) In the figure above, curve A is the ________ curve.
A) marginal cost
B) average variable cost
C) average fixed cost
D) average total cost

19) In the figure above, curve B is the ________ curve.
A) average total cost
B) average variable cost
C) average fixed cost
D) marginal cost

20) In the figure above, when 20 units are produced the marginal cost is
A) $8.
B) more than $8 and less than $16.
C) less than $8.
D) None of the above answers is correct.

21) Increasing marginal returns means that as the firm expands its output, its
A) long-run average total cost increases.
B) long-run average total cost decreases.
C) short-run average total cost decreases.
D) short-run average total cost increases.
22) The long-run average cost curve is the
   A) change in total product divided by the change in capital when the quantity of labor is constant.
   B) relationship between the lowest attainable average total cost and output when both the plant size and labor are fixed.
   C) change in output resulting from a one-unit increase in the quantity of capital.
   D) relationship between the lowest attainable average total cost and output when both the plant size and labor are varied.

23) Economies of scale
   A) lead to rising long-run average costs as output increases.
   B) occur when management complexity brings rising average cost.
   C) occur if output more than doubles when capital and labor double.
   D) occur if output less than doubles when capital and labor double.

24) If Gateway Computer Company could produce more computers at lower long-run average cost by increasing the quantity of the inputs it uses, Gateway definitely would experience
   A) decreasing marginal returns.  B) economies of scale.
   C) increasing marginal returns.  D) diseconomies of scale.

25) When long-run average cost increases as output increases there are
   A) constant returns to scale.  B) economies of scale.
   C) diseconomies of scale.  D) none of the above
Answer Key
Testname: MICRO QUIZ 4

1) B
2) B
3) D
4) B
5) C
6) C
7) C
8) B
9) C
10) B
11) D
12) B
13) A
14) A
15) B
16) D
17) A
18) A
19) A
20) C
21) C
22) D
23) C
24) B
25) C