12 Golam Sidique 6696?

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Quiz 2

For questions 1–4 use the following data:
The inverse demand for beer is given by

$$P = 10 - 2Q,$$

where Q is the number of bottles consumed, and P is the price of a bottle. The equilibrium price of beer at the beginning was equal $P_1^* = 2€$. The government is worried about the health of beer consumers and decided to tax the consumption of beer with a per unit tax of $2€$, which results in the new price of beer $P_2^* = 4€$.

1. What was the consumer surplus in this market when $P_1^* = 2$?

   (a) 8
   (b) 16
   (c) 4
   (d) 0

2. What is the total consumer surplus when the price is $P_2^* = 4$?

   (a) 9
   (b) 4
   (c) 2
   (d) 0

3. What is the revenue of the government from this policy?

   (a) 1
   (b) 3
   (c) 6
   (d) 0

4. What is the change in the total welfare as a result of this policy?
   (Total welfare is the sum of consumer surplus and the government revenue.)

   (a) 0
   (b) 2
   (c) -2
   (d) -1

5. Geometrically, the marginal product

   (a) Is the slope of the line joining the origin to the corresponding point on the total product curve

   (b) At any point is the slope of the total product curve at that point

   (c) Is that point at which the total product curve exhibits diminishing returns

   (d) Is the slope of the average product curve

Use the following information to answer the next two questions.
Suppose you are the owner of small company that produces pencils. Your production function is given by the equation: $Q = KL$. The price of labor is 10, while the price of capital is 20. Currently the firm is operating in the short-run, when capital is fixed at 10 units.

6. The variable cost of producing an output of $Q = 20$ would be equal to

   (a) 20

   (b) 50

   (c) 40

   (d) 0

7. The average fixed cost of producing an output of $Q = 20$ is equal to

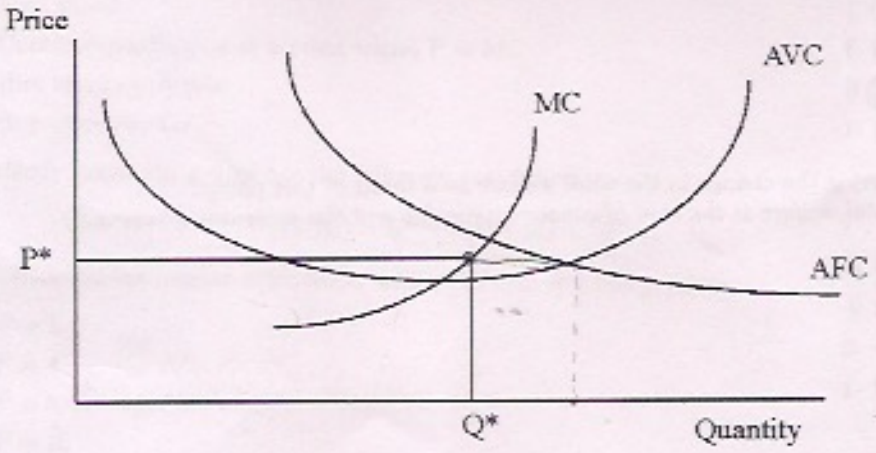
   (a) 0

   (b) 1

   (c) 10

   (d) 20

Use the following figure to answer the next two questions.



8. In the graph above at P*, the firm is making ..... economic profits.

   (a) Positive

   (b) Negative ← correct answer

   (c) Zero

   (d) An indeterminate level of

9. Which statement is true of the graph shown?

(a) The marginal cost curve should not cross the AFC while it is falling

(b) If an ATC curve was drawn in the graph it would intersect the MC curve but not any other curve

(c) The shut down point of the firm would be at an output more than Q*

(d) The marginal cost curve crosses the AFC curve at the lowest point of the AFC curve

10. Which of the following production functions exhibits decreasing returns to scale?

(a) $Q = K^{1/2}L^{1/2}$

(b) $Q = K^{1/2}L^{2/3}$

(c) $Q = K^{1/2}L^{1/3}$

(d) $Q = K/L$

11. The general formula for the marginal rate of technical substitution (with K on the vertical axis) when production function is

$$Q = 4K^{0.4}L^{0.6}$$

is

(a) $0.6K \cdot 0.4L$

(b) $2K$

(c) $0.6K/0.4L$

(d) cannot be specified unless quantity produced is known.

12. When costs are at a minimum,

(a) The ratio of the MP_L/MP_K is lower than w/r

(b) $MP_L = MP_K$

(c) The extra output we get from the last dollar spent on an input must be the same for all inputs

(d) Price L = Price K

Use the following information to answer the next two questions:
Output for a simple production process is given by $Q = 2KL$, where K denotes capital, and L denotes labor. The price of capital is \$25 per unit and capital is fixed at 8 units in the short run. The price of labor is \$5 per unit.

13. What is the cost–minimizing combination of inputs.

(a) 10 K for 1 L

(b) 5 K for 1 L

(c) 1 K for 5 L

(d) 1 K for 10 L

14. How many units of capital and units of labor should the firm use if it wants to minimize costs and produce 1000 units of output.

(a) 25 K and 20 L

(b) 10 K and 50 L

(c) 50 K and 10 L

(d) there is not enough information to answer this question.

15. What is the total cost of producing 1000 units at the cost–minimizing point

(a) 1000
(b) 500
(c) 100
(d) 5000

Use the following information to answer the next two questions:
Output for a simple production process is given by $Q = KL$, where K denotes capital and L denotes labor. The price of labor is \$10 per unit and the price of capital is \$2 per unit.

16. If at the current level of production the marginal product of labor is 4 while the marginal product of capital is 2 then in order to minimize your costs of production you should use:

(a) More capital and less labor
(b) More labor and less capital
(c) More of both inputs
(d) The same amount of both inputs

17. Suppose at the current level of production the firm is minimizing costs and the marginal product of labor is 10. Given this you know that the marginal product of capital must be:

(a) 5
(b) 2
(c) 10
(d) It is impossible to say with the information given

18. A firm is currently selling its product at \$80 each. It estimates that its average total cost of production is \$100 and its average fixed cost is \$40. In the short run the firm should

(a) Shut down
(b) Continue production at a point where P = MC
(c) Hire more employees
(d) Buy more capital

19. A perfectly competitive firm has the following cost function:

$$TC(Q) = Q^3 - 2Q^2 + 9Q + 10.$$

What is the lowest market price below which the firm will not produce.

(a) $P = 1$
(b) $P = 4$
(c) $P = 8$
(d) $P = 10$

20. The firm from the previous question faces a market price $P = 13$. What is the optimal production plan of this firm

(a) $Q = 1$
(b) $Q = 2$
(c) $Q = 0$
(d) $Q = 10$