

Quiz #5, November 7, 2019

1. Which of the following statements is (are) TRUE?

- I. If $TC = \$40,000$ and $FC = \$18,000$, then $VC = \$58,000$.
- II. Because fixed cost does not vary with output, the fixed cost curve is a vertical line.
- III. The total cost and variable cost curves always have the same shape and slope.
- IV. When output is zero, total cost equals fixed costs.

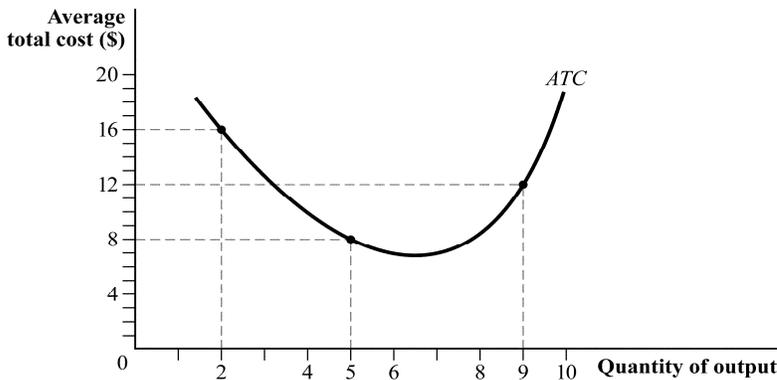
- A) I, II, and III B) III and IV C) III D) II, III, and IV

2. A firm is producing 50 units of output at a total cost of \$1,000, with a per-unit variable cost of \$8. What is the firm's average fixed cost?

- A) \$12 B) \$4 C) \$20 D) \$28

Use the following to answer question 3.

Figure 7.6



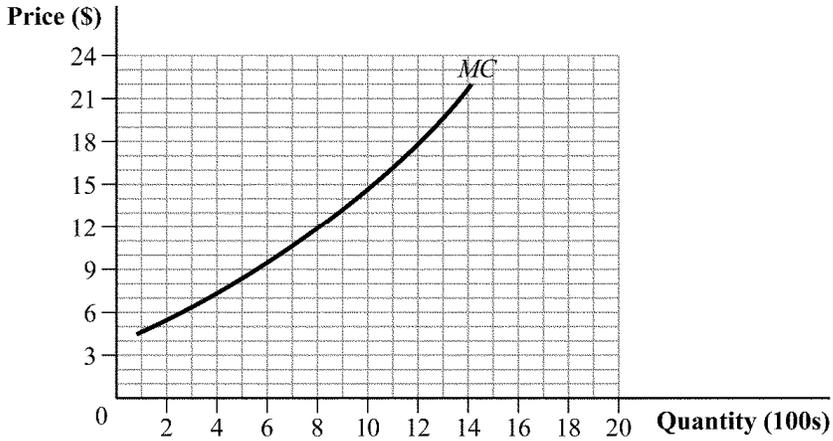
3. (Figure 7.6) Which of the following statements is (are) TRUE?

- I. The average cost at 2 units of output is 8.
- II. The marginal cost between 2 and 5 units of output is constant.
- III. The average cost at 9 units of output is 12.

- A) I and II B) II C) I D) III

Use the following to answer question 4.

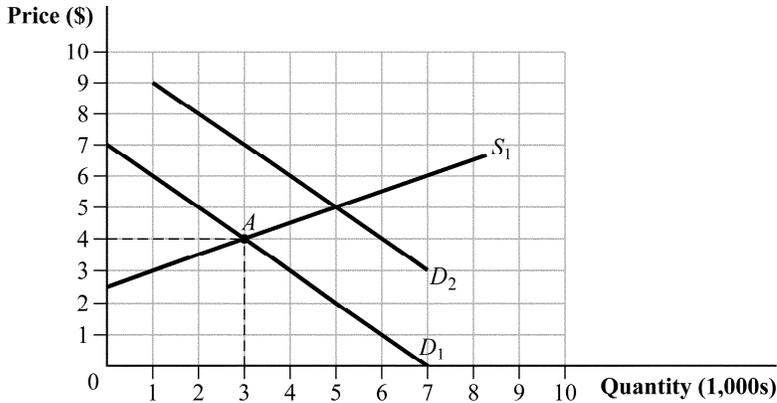
Figure 8.5



4. (Figure 8.5) The graph shows a firm's marginal cost curve. This firm operates in a perfectly competitive industry with market demand and supply curves given by $Q^d = 100 - 8P$ and $Q^s = -20 + 2P$, where Q is measured in millions of units. Based on the figure, how many units of output will the firm produce at the equilibrium price?
- A) 1,200 B) 400 C) 800 D) 1,100
5. Which of the following characteristics relate(s) to perfect competition?
- I. An industry is dominated by several large firms.
 II. Consumers cannot distinguish one firm's product from another.
 III. New firms can easily enter the industry.
- A) III B) II C) II and III D) I and II
6. To maximize profits, a firm should produce where:
- A) $TR/Q = TC/Q$. C) $ATC < P < AVC$.
 B) $P = AVC$. D) $MR = MC$.

Use the following to answer question 7.

Figure 8.17



7. (Figure 8.17) Initially, the constant-cost industry was in long-run equilibrium at point *A* when the demand for the good increased to D_2 . How much output will be produced in the long run as a result of the demand increase?

- A) 3,000 B) 5,000 C) 7,000 D) 6,000

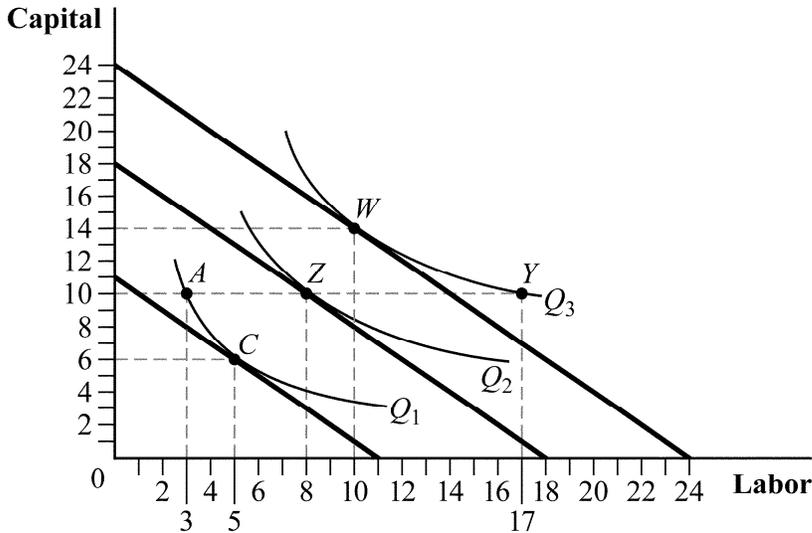
8. Suppose a firm's total cost is given by $TC = 100 + 4Q + 2Q^2$. Which of the following statements is (are) TRUE?

- I. $AVC = 4Q + 2Q^2$
- II. $AFC = 100/Q$
- III. $ATC = 2Q + 4 + 100/Q$
- IV. $FC = 100 + 4Q$

- A) III B) II and III C) I and II D) I and IV

Use the following to answer question 9.

Figure 7.10



9. (Figure 7.10) Suppose the firm is producing at point Z and wants to reduce its output to Q_1 . Which of the following statements is TRUE?
- A) In the long run, the firm will move to point A , where total costs of production are lower than at point C .
 - B) The firm will move along its long-run expansion path from point Z to point A .
 - C) In the short run, the firm will move to point A , where total costs of production are lower than at point C .
 - D) In the short run, the firm will move to point A , where total costs of production are higher than at point C .
10. Suppose the market for sprouts is in long-run equilibrium. In the short run, what will happen if an *E. coli* outbreak reduces the demand for sprouts?
- A) The marginal cost curve will shift upward for each producer, causing prices to rise and profits to fall.
 - B) The market price of sprouts will fall, causing each firm to produce fewer sprouts.
 - C) Existing firms will expand output to make up for the decrease in demand.
 - D) The marginal cost curve will shift downward for each producer, leaving prices unchanged.

Answer Key - F19-5

1. B
2. A
3. D
4. C
5. C
6. D
7. D
8. B
9. D
10. B