

## Quiz #4 -- March 17, 2022

You have until the end of class to complete the quiz. Answer the questions on the answer sheet. Pick the alternative that best completes the statement or answers the question. Be sure to write and bubble in your name and PantherID on the answer sheet. You may keep the test booklet.

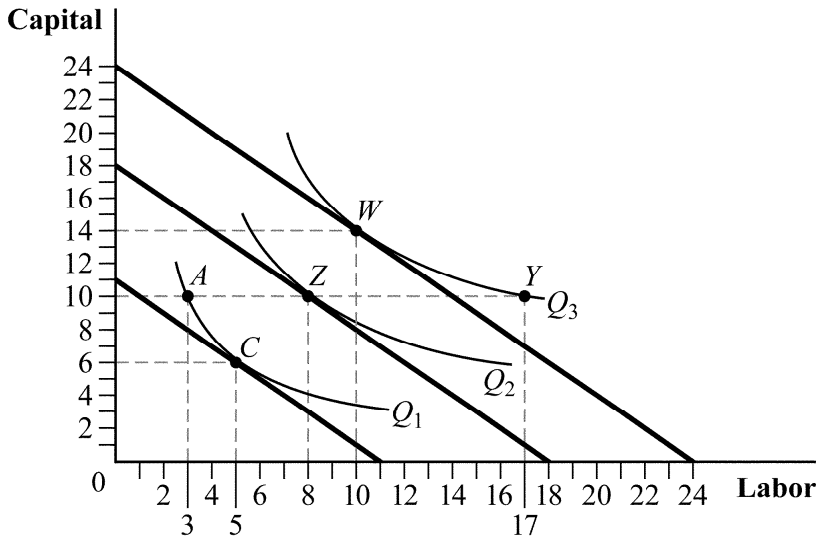
1. Which of the following statements is (are) TRUE?

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

Use the following to answer question 2.

**Figure 7.10**



2. (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) In the short run, the firm will move to point  $A$ , where total costs of production are lower than at point  $C$ .
  - C) In the short run, the firm will move to point  $A$ , where total costs of production are higher than at point  $C$ .
  - D) The firm will move along its long-run expansion path from point  $Z$  to point  $A$ .
  
3. Suppose the wage rate is \$25 per hour and the rent on capital is \$50 per hour. The relative wage rate is:
  - A) 25.
  - B) 2.
  - C) 75.
  - D) 0.5.



7. A fixed cost:
- A) captures the wear and tear of using capital in production.
  - B) decreases as the firm increases output.
  - C) does not change with the level of the firm's output.
  - D) is associated with the firm's variable inputs.

8. Lilly's Lumberyard had the following revenues and costs last year:

**Costs**

Lumber supplies	\$ 80,000
Building rent	40,000
Utilities & insurance	20,000
Employee salaries	150,000
Lilly's salary	110,000
Revenues	<b>\$400,000</b>

If Lilly did not own a lumberyard, she would earn \$115,000 per year as a store manager for Home Depot. Lilly's Lumberyard had an economic cost of \_\_\_\_\_ and an economic profit of \_\_\_\_\_.

- A) \$405,000; -\$5,000
- B) \$400,000; \$35,000
- C) \$210,000; \$0
- D) \$225,000; -\$75,000

Use the following to answer question 9.

**Table 6.3**

Units of Capital, <i>K</i>	Units of Labor, <i>L</i>			
	1	2	3	4
1	50.0	66.7	75.5	80.0
2	66.7	100.0	120.0	133.3
3	75.0	120.0	150.0	171.4
4	80.0	133.3	171.4	200.0

9. (Table 6.3) This table illustrates a \_\_\_\_\_ production function because capital and labor \_\_\_\_\_.

- A) long-run; can both be varied                      C) long-run; are used in equal increments  
B) short-run; are used in equal increments        D) short-run; can both be varied

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

- I. If marginal cost is falling, the average total cost must be falling.  
II. The marginal cost curve intersects both the average total and average variable cost curves at their minimum points.  
III. If marginal cost is greater than average variable cost, the average variable cost curve is positively sloped.

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

**Answer Key - S22-4**

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