

The Cost of Production
Extra Multiple Choice Questions for Review

1. Implicit costs are:
 - A) equal to total fixed costs.
 - B) comprised entirely of variable costs.
 - C) "payments" for self-employed resources.
 - D) always greater in the short run than in the long run.

2. Which would be an implicit cost for a firm? The cost:
 - A) of worker wages and salaries for the firm.
 - B) paid for leasing a building for the firm.
 - C) paid for production supplies for the firm.
 - D) of wages foregone by the owner of the firm.

3. If a firm's revenues just cover all its opportunity costs, then:
 - A) normal profit is zero.
 - B) economic profit is zero.
 - C) total revenues equal its explicit costs.
 - D) total revenues equal its implicit costs.

4. Suppose a firm sells its product at a price lower than the opportunity cost of the inputs used to produce it. Which is true?
 - A) The firm will earn accounting and economic profits.
 - B) The firm will face accounting and economic losses.
 - C) The firm will face an accounting loss, but earn economic profits.
 - D) The firm may earn accounting profits, but will face economic losses.

5. Suppose that a firm produces 200,000 units a year and sells them all for \$10 each. The explicit costs of production are \$1,500,000 and the implicit costs of production are \$300,000. The firm has an accounting profit of:
 - A) \$500,000 and an economic profit of \$200,000.
 - B) \$400,000 and an economic profit of \$200,000.
 - C) \$300,000 and an economic profit of \$400,000.
 - D) \$200,000 and an economic profit of \$500,000.

6. The short run is a time period in which:
 - A) all resources are fixed.
 - B) the level of output is fixed.
 - C) the size of the production plant is variable.
 - D) some resources are fixed and others are variable.

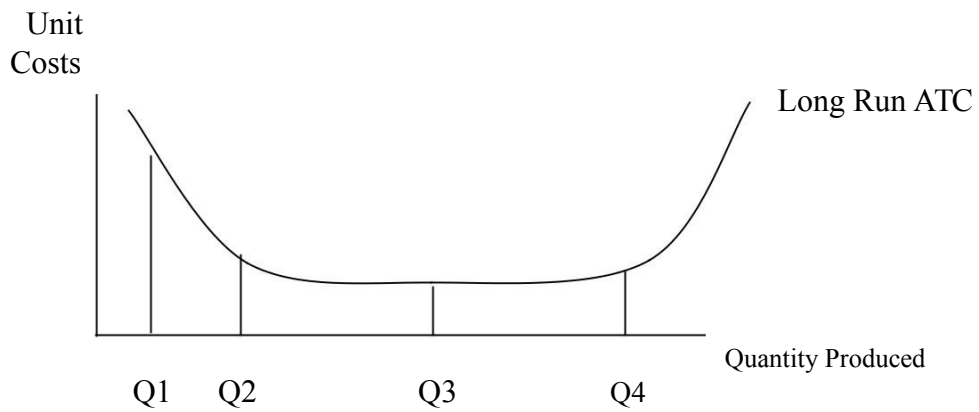
7. The law of diminishing returns states that:
 - A) as a firm uses more of a variable resource, given the quantity of fixed resources,

- the average product of the firm will increase.
- B) as a firm uses more of a variable resource, given the quantity of fixed resources, marginal product of the firm will eventually decrease.
- C) in the short run, the average total costs of the firm will eventually diminish.
- D) in the long run, the average total costs of the firm will eventually diminish.
8. The law of diminishing returns only applies in cases where:
- A) there is increasing scarcity of factors of production.
- B) the price of extra units of a factor is increasing.
- C) there is at least one fixed factor of production.
- D) capital is a variable input.
9. The marginal product of labor curve shows the change in total product resulting from a:
- A) one-unit increase in the quantity of a particular resource used, letting other resources vary.
- B) one-unit increase in the quantity of a particular resource used, holding constant other resources.
- C) change in the cost of a variable resource.
- D) change in the cost of a fixed resource.
10. When the total product curve is falling, the:
- A) marginal product of labor is zero.
- B) marginal product of labor is negative.
- C) average product of labor is increasing.
- D) average product of labor must be negative.
11. When marginal product reaches its maximum, what can be said of total product?
- A) total product must be at its maximum
- B) total product starts to decline even if marginal product is positive
- C) total product is increasing if marginal product is still positive
- D) total product levels off
12. Variable costs are:
- A) sunk costs.
- B) multiplied by fixed costs.
- C) costs that change with the level of production.
- D) defined as the change in total cost resulting from the production of an additional unit of output.
13. Which is *not* a fixed cost?
- A) monthly rent of \$1,000 contractually specified in a one-year lease
- B) an insurance premium of \$50 per year, paid last month
- C) an attorney's retainer of \$50,000 per year

- D) a worker's wage of \$15 per hour
14. If you know that with 8 units of output, average fixed cost is \$12.50 and average variable cost is \$81.25, then total cost at this output level is:
A) \$93.75. B) \$97.78. C) \$750. D) \$880.
15. With fixed costs of \$400, a firm has average total costs of \$3 and average variable costs of \$2.50. Its output is:
A) 200 units. B) 400 units. C) 800 units. D) 1,600 units.
16. The reason the marginal cost curve eventually increases as output increases for the typical firm is because:
A) of diseconomies of scale.
B) of minimum efficient scale.
C) of the law of diminishing returns.
D) normal profit exceeds economic profit.
17. If the short-run average variable costs of production for a firm are rising, then this indicates that:
A) average total costs are at a maximum.
B) average fixed costs are constant.
C) marginal costs are above average variable costs.
D) average variable costs are below average fixed costs.
18. If a more efficient technology was discovered by a firm, there would be:
A) an upward shift in the AVC curve. C) a downward shift in the AFC curve.
B) an upward shift in the AFC curve. D) a downward shift in the MC curve.
19. The firm's short-run marginal-cost curve is increasing when:
A) marginal product is increasing. C) total fixed cost is increasing.
B) marginal product is decreasing. D) average fixed cost is decreasing.

20. A firm encountering economies of scale over some range of output will have a:
- A) rising long-run average cost curve.
 - B) falling long-run average cost curve.
 - C) constant long-run average cost curve.
 - D) rising, then falling, then rising long-run average cost curve.
21. When a firm doubles its inputs and finds that its output has more than doubled, this is known as:
- A) economies of scale.
 - B) constant returns to scale.
 - C) diseconomies of scale.
 - D) a violation of the law of diminishing returns.
22. The larger the diameter of a natural gas pipeline, the lower is the average total cost of transmitting 1,000 cubic feet of gas 1,000 miles. This is an example of:
- A) economies of scale.
 - B) normative economies.
 - C) diminishing marginal returns.
 - D) an increasing marginal product of labor.
23. If all resources used in the production of a product are increased by 20 percent and output increases by 20 percent, then there must be:
- A) economies of scale.
 - B) diseconomies of scale.
 - C) constant returns to scale.
 - D) increasing average total costs.
24. Economies and diseconomies of scale explain why the:
- A) short-run average fixed cost curve declines so long as output increases.
 - B) marginal cost curve must intersect the minimum point of the firm's average total cost curve.
 - C) long-run average total cost curve is typically U-shaped.
 - D) short-run average variable cost curve is U-shaped.

Use the following to answer question 25:



25. In the graph above, minimum efficient scale occurs at:

- A) Q1. B) Q2. C) Q3. D) Q4.

Answer Key -- ch22

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