Unit 3.3 Long-Run Production Costs

AP Microeconomics Homework — 26 Questions

题库 Questions

1. 题库 Unit 3 Production Function Q3

Which of the following MUST be true of the long run?

(A) It is at least one year in duration.
(B) All factors of production are variable.
(C) At least one factor of production is fixed.
(D) Marginal costs are constant.
(E) Average total costs are constant.

2. 题库 Unit 3 Production Function Q4

Suppose a firm's production process exhibits diseconomies of scale. How and why will costs change if the firm reduces its output?

(A) Long-run average total cost will increase because it becomes more difficult for the firm to manage its workforce.
(B) Long-run average fixed costs will increase because the firm produces fewer units of output.
(C) Long-run average total cost will decrease because it becomes easier for the firm to manage its workforce.
(D) Long-run average fixed costs will decrease because the firm produces fewer units of output.
(E) Long-run average total cost will decrease because it becomes more difficult for the firm to manage its workforce.

3. 题库 Unit 3 Production Function Q27

If the output of a firm doubles when the firm doubles all of its inputs, the firm must be experiencing

(A) economies of scale
(B) increasing returns to scale
(C) constant returns to scale
(D) decreasing returns to scale
(E) diseconomies of scale

4. 题库 Unit 3 Production Function Q30

The table below shows the long-run total cost function of a firm.

Quantity of Output	Total Cost ($)
0	0
1	10
2	20
3	30
4	40
5	50

The firm's cost function exhibits

(A) diseconomies of scale
(B) constant returns to scale
(C) economies of scale
(D) decreasing marginal cost
(E) increasing marginal cost

5. 题库 Unit 3 Production Function Q31

Economies of scale can be illustrated by

(A) an increasing short-run marginal cost curve as a firm produces more output
(B) a decreasing short-run average total cost curve as a firm produces more output
(C) a downward-sloping long-run supply curve for an industry
(D) a decreasing long-run average total cost curve as a firm produces more output
(E) an increasing long-run average total cost curve as a firm produces more output

6. 题库 Unit 3 Production Function Q37

Which of the following indicates the presence of economies of scale as the quantity of output increases?

(A) Average variable cost decreases.
(B) Long-run average total cost decreases.
(C) Marginal cost decreases.
(D) Average fixed cost decreases.
(E) Marginal cost exceeds average total cost.

7. 题库 Unit 3 Production Function Q38

Which of the following must be true if a firm is experiencing economies of scale?

(A) All costs are explicit.
(B) Long-run average total cost decreases as the firm's output increases.
(C) Economic profits decrease as the firm's output increases.
(D) Long-run average total cost remains constant as the firm's output decreases.
(E) Proportionate increases in inputs result in less-than-proportionate increases in output.

8. 题库 Unit 3 Production Function Q39

Economies of scale exist when

(A) the doubling of all inputs doubles the output produced
(B) short-run average total cost decreases as output increases
(C) short-run average total cost remains constant as output increases
(D) long-run average total cost increases as output increases
(E) long-run average total cost decreases as output increases

9. 题库 Unit 3 Production Function Q40

If a firm experiences economies of scale over the entire range of output, the long-run average cost curve will be

(A) U-shaped
(B) upward sloping
(C) downward sloping
(D) horizontal
(E) below the marginal cost curve

10. 题库 Unit 3 Production Function Q41

If a firm is experiencing economies of scale, which of the following will decrease as output increases?

(A) Fixed cost
(B) Long-run total cost
(C) Long-run average total cost
(D) Marginal cost
(E) Marginal revenue

11. 题库 Unit 3 Production Function Q42

F&D Manufacturing Company increases all its inputs by 50 percent each. If F&D's output increases by 100 percent, then F&D is experiencing

(A) increasing returns to scale
(B) constant returns to scale

(C) diseconomies of scale

(D) increasing marginal cost

(E) decreasing profits

12. 题库 Unit 3 Production Function Q45

Currently, XYZ Corporation can produce 50 units of output using 20 workers and 8 units of capital. Which of the following changes in the number of workers, units of capital, and quantity of output are consistent with constant returns to scale?

(A)

Workers	Capital	Output
40	8	100

(B)

Workers	Capital	Output
40	16	90

(C)

Workers	Capital	Output
20	4	25

(D)

Workers	Capital	Output
10	4	25

(E)

Workers	Capital	Output
10	8	25

13. 题库 Unit 3 Production Function Q52

If a firm's production process exhibits economies of scale, which of the following will occur when the firm's output increases?

(A) Its short-run average total costs will rise.

(B) Its long-run average total costs will rise.

(C) Its long-run average total costs will fall.

(D) Its short-run average total costs will fall.

(E) Its long-run total costs will fall.

14. 题库 Unit 3 Production Function Q53

Which of the following is a result of increasing returns to scale?

(A) Upward-sloping short-run marginal cost curve

(B) Downward-sloping marginal physical product of labor curve

(C) Downward-sloping long-run average total cost curve

(D) Diseconomies of scale

(E) Diminishing returns

15. 题库 Unit 3 Production Function Q56

Which of the following indicates that a firm is experiencing economies of scale?

(A) The firm's long-run supply curve is horizontal.

(B) The firm's long-run marginal cost increases as output increases.

(C) The firm's long-run average total cost decreases as output increases.

(D) The firm's long-run total cost decreases as output increases.

(E) The firm's total revenues increase as output sold increases.

16. 题库 Unit 3 Production Function Q57

If a firm's long-run average total cost increases as output increases, the firm is experiencing

(A) economies of scale
(B) diseconomies of scale
(C) increasing returns to scale
(D) efficiency in plant size
(E) maximum economic profit

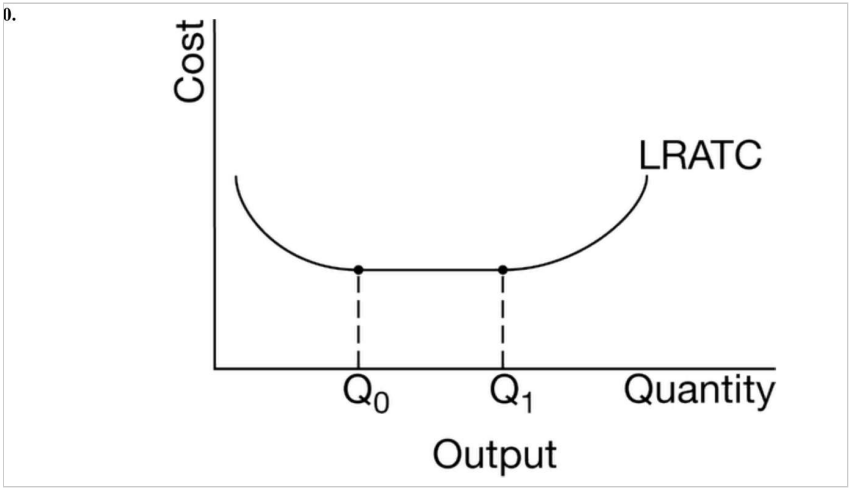
17. 题库 Unit 3 Production Function Q58

The long-run average cost curve will be sloping downward if a firm experiences

(A) diminishing marginal returns
(B) decreasing returns to scale
(C) constant returns to scale
(D) diseconomies of scale
(E) economies of scale

18. 题库 Unit 3 Production Function Q60

0.



The graph above shows a firm's long-run average total cost curve (LRATC). Which of the following statements is true as the firm increases its scale of production?

(A) From zero output to Q_0, the firm experiences diseconomies of scale.
(B) From Q_0 to Q_1, the firm experiences increasing returns to scale.
(C) For output levels above Q_1, the firm experiences diseconomies of scale.
(D) At all output levels, the firm's long-run marginal cost must be constant.
(E) From Q_0 to Q_1, LRATC falls because average fixed cost decreases; after Q_1, LRATC rises due to diminishing returns to labor.

19. 题库 Unit 3 Production Function Q69

UNITS OF OUTPUT

	Units of Capital		
Units of Labor	**1**	**2**	**3**
1	100	140	160
2	140	200	240
3	160	240	300

The table above shows the various units of output that can be produced with different combinations of capital and labor. Which of the following statements is correct according to the information in the table?

(A) In the long run, there are constant returns to scale.
(B) In the long run, there are increasing returns to scale.
(C) In the short run, the marginal product of capital is constant.
(D) In the short run, the marginal product of labor is constant.
(E) In the short run, the law of diminishing marginal returns does not hold.

20. 题库 Unit 3 Production Function Q76

A merger of two firms may increase economic efficiency by

(A) decreasing average total cost through an increase in economies of scale
(B) decreasing output to reduce marginal cost and equalize price
(C) increasing economic profits but decreasing consumer surplus
(D) increasing consumer surplus by decreasing economic profits
(E) increasing consumer surplus by shifting the demand curve for the product to the right

21. 题库 Unit 3 Production Function Q6

What does the minimum efficient scale measure?

(A) The smallest output level at which short-run average total cost is minimized.
(B) The smallest output level at which short-run total cost is minimized.
(C) The smallest output level at which long-run average total cost is minimized.
(D) The largest output level at which long-run average total cost is minimized.
(E) The largest output level at which long-run total cost is minimized.

22. 题库 Unit 3 Production Function Q59

Under which of the following circumstances is a firm experiencing economies of scale?

(A) The firm increases only its labor input, and output decreases.
(B) The firm doubles its inputs, and output triples.
(C) The firm builds a new plant, and the average cost of production increases.
(D) The firm hires a new plant manager, and profits increase.
(E) The product price increases, and the firm increases its output.

Past Exam Questions

23. 2021 AP Micro MCQ Q3

What does the minimum efficient scale measure?

(A) The smallest output level at which short-run average total cost is minimized.
(B) The smallest output level at which short-run total cost is minimized.
(C) The smallest output level at which long-run average total cost is minimized.
(D) The largest output level at which long-run average total cost is minimized.
(E) The largest output level at which long-run total cost is minimized.

24. 2022 AP Micro MCQ Q15

As a firm expands its output, it initially experiences economies of scale and then diseconomies of scale. The firm's long-run average cost curve is

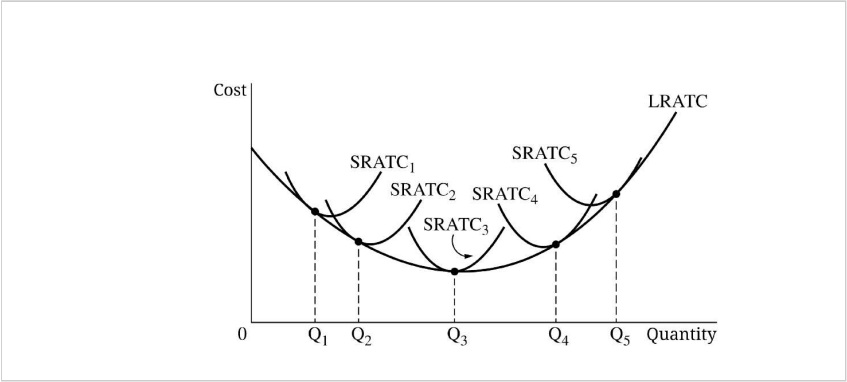
(A) horizontal and then upward sloping
(B) horizontal and then downward sloping
(C) downward sloping and then upward sloping
(D) upward sloping and then downward sloping
(E) upward sloping and then horizontal

25. 2022 AP Micro MCQ Q16

When a firm is experiencing economies of scale, an increase in the firm's output will result in which of the following?

(A) A decrease in total cost
(B) A decrease in long-run average total cost
(C) A downward shift in the long-run marginal cost curve
(D) An increase in long-run average total cost
(E) An increase in long-run marginal cost

26. 2023 AP Micro MCQ Q29



The graph provided shows five different short-run average total cost (SRATC) curves of a firm and its long-run average total cost (LRATC) curve. Which of the following is true if the firm is operating on its $SRATC_2$ curve and producing quantity Q_2?

(A) The firm is producing at the minimum efficient scale.
(B) The firm must decrease its output to achieve the minimum efficient scale.
(C) The firm must increase its output to achieve the minimum efficient scale.
(D) The firm is producing at its productively efficient quantity of output.
(E) The firm is experiencing diseconomies of scale.