Introduction to Production Function

Economics · Answer Key · 15 Questions

1. What is a production function?

A) The cost of inputs
B) The relationship between inputs and output
C) The price of a good
D) The profit of a firm

2. How is a labor-intensive technology defined?

A) Relies heavily on capital
B) Relies heavily on human labor
C) Uses no inputs
D) Uses equal parts land and capital

3. What does the slope of the production function represent?

A) Average product
B) Total cost
C) Marginal product
D) Returns to scale

4. What is the formula for Marginal Product of Labor (MPL)?

A) Total Output / Labor
B) Change in Output / Change in Labor
C) Price / Output
D) Labor / Output

5. What is the Law of Diminishing Returns?

A) Marginal product eventually declines
B) Output always increases proportionately
C) Fixed inputs decrease over time
D) Labor becomes more productive

6. Why does diminishing marginal product occur?

A) Workers are lazy
B) Fixed inputs restrict efficiency
C) Prices of goods fall
D) Technology improves

7. What happens to Average Product when Marginal Product exceeds it?

A) It decreases
B) It stays the same
C) It increases
D) It becomes zero

8. When is Total Product at its maximum?

A) When marginal product is negative
B) When marginal product is zero
C) When average product is zero
D) When inputs are zero

9. What is the formula for Average Product of Labor?

A) Change in Q / Change in L
B) Total Output / Quantity of Labor
C) Marginal Product * Labor
D) Labor / Total Output

10. What are Constant Returns to Scale?

A) Output grows faster than inputs
B) Output grows in the same proportion as inputs
C) Output grows slower than inputs
D) Output remains constant

11. If inputs double and output increases by 2.75 times, what is this called?

A) Constant returns to scale
B) Decreasing returns to scale
C) Increasing returns to scale
D) Negative returns to scale

12. If inputs double and output increases by only 1.5 times, what is this called?

A) Constant returns to scale
B) Decreasing returns to scale
C) Increasing returns to scale
D) Negative returns to scale

13. Rational people think at the margin to decide what?

A) Whether to hire an extra worker
B) How to set fixed costs
C) How to eliminate all labor
D) How to increase land size

14. Which of these is a factor of production mentioned in the text?

A) Capital
B) Profit
C) Revenue
D) Tax

15. In the short run, why does the marginal product of labor decline?

A) Because of variable inputs
B) Because of fixed inputs
C) Because of market demand
D) Because of competition