BE International Program
Thammasat University

EE211: Introduction to Economics, Semester 1/2011

Self Test on Cost and Production in the Short Run

Benefits: To check your basic knowledge on Costs and Production in the Short-Run

Instructions

1) Finish your reading on this topic and try to complete the test within 40 minutes by using the answer sheet provided.
2) After complete the test, check all of your answers with the answer key.
3) If you have questions, please send us your message at pwrasai@gmail.com or thanet@econ.tu.ac.th

Caveat: It is almost useless to consult the answer key before you complete the test.

---

1. The relationship between factors of production used in the production process and the resulting output is called a(n)

A) consumption possibilities boundary.
B) economic function.
C) production boundary.
D) cost function.
E) production function.

2. Economists use the notation Q = f(L,K) to describe

A) the technological relationship between the inputs that a firm uses and the outputs that it produces.
B) the financial relationship between the inputs that a firm uses and the outputs that it produces.
C) the arithmetic relationship between the outputs that a firm uses and the inputs that it produces.
D) the flow of labor (L) and capital (K) services that are available when output is (Q).
E) the level of output (Q) required to fully employ labor (L) and capital (K).

3. Suppose a production function for a firm takes the following algebraic form: Q = 2KL, where Q is the output of sweaters per day. Now suppose the firm is operating with 8 units of capital (K=8) and 10 units of labor (L=10). What is the output of sweaters?

A) 30 sweaters per day
B) 60 sweaters per day
C) 80 sweaters per day
D) 160 sweaters per day
E) 155 sweaters per day

4. The choices listed below involve costs to the firm. For which is the implicit cost potentially different than its explicit cost?
A) The use of firm-owned assets.
B) The services of hired workers.
C) The use of rented land.
D) The interest paid on borrowed money.
E) The purchase of raw materials used in production.

5. The opportunity cost of money that a firm's owner has invested in the firm is an example of
A) direct production costs.
B) accounting costs.
C) sunk costs.
D) implicit costs.
E) explicit costs.

6. Economic profits are less than accounting profits because the calculation of economic profit
A) includes an amount for depreciation.
B) includes an explicit charge for risk taking.
C) includes the implicit charges for the use of capital owned by the firm and for risk taking.
D) includes the implicit charges for the use of capital owned by the firm and for income taxes.
E) is stipulated in regulations set forth by the Internal Revenue Service.

7. We can predict that resources will move into an industry whenever
A) accounting profits for firms in that industry are greater than zero.
B) accounting profits for firms in that industry are zero.
C) economic profits for firms in that industry are zero.
D) economic profits for firms in that industry are greater than zero.
E) economic losses for firms in that industry are minimized.

The table below provides the annual revenues and costs for a family-owned firm producing catered meals.

TABLE 1

Total Revenues (Baht)	500,000
Total Costs (Baht)	
- wages and salaries	200,000
- rent	105,000
- forgone interests from investing the owner's money 200,000 baht into this business	20,000
- depreciation of capital equipment	25,000
- intermediate inputs	150,000
- forgone wages of owners in alternative employment	80,000
- interest on bank loan	10,000

8. Refer to Table 1. The explicit costs for this family-owned firm are
   A) 115,000
   B) 465,000
   C) 490,000
   D) 500,000
   E) 570,000

9. Refer to Table 1. The implicit costs for this family-owned firm are
   A) 35,000
   B) 80,000
   C) 100,000
   D) 125,000
   E) 325,000

10. Refer to Table 1. The accounting profits for this family-owned firm are
    A) -15,000
    B) 0
    C) 10,000
    D) 30,000
    E) 500,000

11. Refer to Table 1. The economic profits for this family-owned firm are
    A) -90,000
    B) -10,000
    C) 0
    D) 10,000
    E) 105,000

12. Refer to Table 1. To an accountant, this family-owned company is earning ________.To an economist, the same firm is earning ________.
    A) zero profit; economic losses
    B) zero profit; normal profits
    C) positive profits; economic losses
    D) economic profits; economic profits
    E) economic profits; economic losses

13. Which of the following is most likely a long-run decision for a firm?
    A) The hours a store should stay open.
    B) How many warehouses to build.
    C) The number of workers to hire.
    D) The amount of inventory to stock.
    E) The price at which to sell the product.

14. The period of time over which at least one factor of production is fixed is called the
    A) very-short run.
    B) short run.
    C) long run.
    D) very-long run.
    E) none of the above

15. Average, marginal, and total product curves
    A) demonstrate that each of these measures of output increase as more inputs are applied.
    B) demonstrate that, in the short run, all inputs are variable.
    C) relate the prices of inputs (factors of production) to the prices of products.
    D) relate the price of output to the quantity supplied.
    E) express relationships between physical inputs and physical outputs.

16. Consider a firm in the short run. If AP = MP and both are positive, then total product
    A) is at a maximum.
    B) is decreasing as extra units of the variable input are employed.
    C) is increasing as extra units of the variable input are employed.
    D) may be either increasing or decreasing as extra units of the variable input are employed.
    E) is at its minimum.

17. In economics, the term "fixed costs" means
    A) implicit costs.
    B) opportunity costs.
    C) costs that are never accounted for.
    D) costs incurred in the past that involve no implicit costs.
    E) costs that do not vary with the level of output produced.

The following data show the total output for a firm when specified amounts of labor are combined with a fixed amount of capital. When answering the questions, you are to assume that the wage per unit of labor is 25 Euro and the cost of the capital is 100 Euro.

Table 2

Labor per unit of time	Total Output
0	0
1	25

2	75
3	175
4	250
5	300

18. Refer to Table 2. Average fixed costs for 300 units of output is approximately
    A) 33 cents.
    B) 41 cents.
    C) 45 cents.
    D) 74 cents.
    E) 82 cents.
19. Refer to Table 2. Average variable costs for 175 units of output is approximately
    A) 25 cents.
    B) 32 cents.
    C) 43 cents.
    D) 57 cents.
    E) 1.00 Euro

20. Refer to Table 2. The average total cost for 250 units of output is approximately
    A) 33 cents.
    B) 40 cents.
    C) 63 cents.
    D) 80 cents.
    E) 1.00 Euro

21. In the short run, total fixed costs
    A) decrease and then increase as output increases.
    B) decrease as output increases.
    C) do not vary with output.
    D) increase and then decrease as output increases.
    E) are equal to total variable costs.

22. Ton recently went into business producing widgets. Which of the following would be a fixed cost for his firm?
    1. labor costs are 10,000 Baht per month
    2. raw material costs are 50,000 Baht per month
    3. a one-year lease on a building is 120,000 baht

    A) 1 only
    B) 2 only
    C) 3 only
    D) 1 and 2 only
    E) 2 and 3 only

23. Marginal cost is defined as the
    A) change in total cost resulting from an additional unit of output.
    B) change in fixed cost resulting from an additional unit of output.
    C) difference between average total cost and average variable cost.

D) cost per unit when the firm is operating at capacity.
E) cost of an additional unit of a variable factor of production.

24. Which one of the following types of cost declines over the whole range of output?
A) average fixed cost
B) marginal cost
C) total fixed cost
D) average variable cost
E) total variable cost

25. The vertical distance between the average cost curve and the average variable cost curve is
A) marginal cost.
B) average fixed cost.
C) average total cost.
D) total fixed cost.
E) average variable cost.

Row, row, row your boat,
Gently down the stream.
Merrily, merrily, merrily, merrily,
Life is but a dream.

Learning is like rowing upstream: not to advance is to drop back.
~Chinese Proverb~

Answer Key for Self Test

1. B
2. A
3. D
4. A
5. D

6. C
7. D
8. C
9. C
10. C

11. A
12. C
13. B
14. B
15. A

16. C
17. E
18. C
19. C
20. D

21. C
22. C
23. A
24. A
25. B

EE211: Self Test on Production and Costs in the Short Run
ANSWER SHEET
(25 MULTIPLE-CHOICE QUESTIONS)

STUDENT ID______________________

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