Chapter 13 Costs of Production  Practice Test

Multiple Choice
Identify the letter of the choice that best completes the statement or answers the question.

1. Total revenue equals
   a. total output multiplied by sales price of output.
   b. total output multiplied by profit.
   c. (total output multiplied by sales price) - inventory surplus.
   d. (total output multiplied by sales price) - inventory shortage.

2. If a firm produces nothing, which of the following costs will be zero?
   a. variable cost
   b. total cost
   c. average cost
   d. opportunity cost

3. Average total cost is equal to
   a. average fixed cost + average variable cost.
   b. total cost - total quantity of output.
   c. average variable cost + total fixed cost.
   d. average variable cost x total quantity of output.

4. The amount that total cost rises when the firm produces one additional unit is called
   a. marginal cost.
   b. average cost.
   c. fixed cost.
   d. variable cost.

5. Average total cost tells us
   a. the cost of a typical unit of output, if total cost is divided evenly over all the units produced.
   b. the cost of the last unit of output, if total cost does not include a fixed cost component.
   c. the variable cost of a firm that is producing at least one unit of output.
   d. the total cost of the first unit of output, if total cost is divided evenly over all the units produced.

6. Marginal cost tells us
   a. the marginal increment to profitability when price is constant.
   b. the value of all resources used in a production process.
   c. the amount total cost rises when output rises by one unit.
   d. the amount fixed cost rises when output rises by one unit.

7. Diminishing marginal product suggests that
   a. marginal cost is downward sloping.
   b. additional units of output are more expensive.
   c. the firm is at full capacity.
   d. all of the above.
8. When marginal cost is less than average total cost,
   a. marginal cost must be falling.
   b. average total cost is falling.
   c. average total cost is rising.
   d. average variable cost must be falling.

9. If marginal cost is below average total cost, average total cost
   a. is falling.
   b. is rising.
   c. is constant.
   d. may rise or fall depending on the size of fixed costs.

10. Diminishing marginal product occurs
    a. immediately after the first worker is hired.
    b. after the marginal cost curve crosses the average total cost curve.
    c. at different times for different firms.
    d. when average variable cost begins to fall.

Graph 13-6

The figure shown depicts average total cost functions for a firm that produces automobiles. Use the figure to answer the following questions.

11. Refer to Graph 13-6. Which of the curves is most likely to characterize the short-run average total cost curve of the biggest factory?
    a. ATC_A
    b. ATC_B
    c. ATC_C
    d. ATC_D
12. Refer to Graph 13-6. At levels of output above point N the firm experiences
   a. economies of scale.
   b. diseconomies of scale.
   c. economic profit.
   d. accounting profit.

13. Specialization among workers occurs when
   a. each worker is allowed to perfect one particular task.
   b. each worker is responsible for a number of different tasks.
   c. quality management allows workers to switch from one task to another.
   d. all of the above.

### Table 13-3
Use the information below to answer the following questions
Measures of Cost for ABC Inc. Widget Factory.

<table>
<thead>
<tr>
<th>Quantity of Widgets</th>
<th>Fixed Costs</th>
<th>Variable Costs</th>
<th>Total Costs</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>$10</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>$1</td>
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<tr>
<td>2</td>
<td>$3</td>
<td>$13</td>
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<tr>
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<td>$6</td>
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<tr>
<td>4</td>
<td>$10</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td></td>
<td>$25</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>$10</td>
<td>$21</td>
<td></td>
</tr>
</tbody>
</table>

14. Refer to Table 13-3. What is the marginal cost of producing the first widget?
   a. It can't be determined from the information given.
   b. $1.00
   c. $10.00
   d. $11.00
Teacher's Helper is a small company that has a subcontract to produce instructional materials for disabled children in public school districts. The owner rents several small rooms in an office building in the suburbs for $600 a month and has leased computer equipment that costs $480 a month.

Table 13-5

<table>
<thead>
<tr>
<th>Output (Instructional Modules per month)</th>
<th>Fixed Cost</th>
<th>Variable Cost</th>
<th>Total Cost</th>
<th>Average Fixed Cost</th>
<th>Average Variable Cost</th>
<th>Average Total Cost</th>
<th>Marginal Cost</th>
</tr>
</thead>
<tbody>
<tr>
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<td>0</td>
<td>1,080</td>
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<td>0</td>
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<td></td>
<td>965</td>
<td>0</td>
<td>480</td>
<td>1,445</td>
<td>480</td>
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<td>2,160</td>
<td>730</td>
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<tr>
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<td>10,000</td>
<td>0</td>
<td>300</td>
<td>9,700</td>
<td>300</td>
</tr>
</tbody>
</table>

15. Refer to Table 13-5. What is the average variable cost for the month if 6 instructional modules are produced?
   a. $180.00
   b. $533.33
   c. $700.00
   d. $713.33

16. An example of an implicit cost of production would be
   a. the cost of raw materials for producing bread in a bakery.
   b. the cost of a delivery truck in a business that rarely makes deliveries.
   c. the income an entrepreneur could have earned working for someone else.
   d. all of the above.

17. Economic profit is equal to
   a. total revenue minus the opportunity cost of producing goods and services.
   b. total revenue minus the accounting cost of producing goods and services.
   c. total revenue minus the explicit cost of producing goods and services.
   d. average revenue minus the average cost of producing the last unit of a good or service.
The figure shown depicts a production function for a firm that produces cookies. Use the figure to answer the following questions.

18. Refer to Graph 13-1. As the number of workers increases,
   a. marginal product increases, but at a decreasing rate.
   b. total output increases, but at a decreasing rate.
   c. marginal product increases.
   d. total output decreases.
Refer to Graph 13-5. Which of the lines is most likely to represent average variable cost?

19. a. A  
b. B  
c. C  
d. D

Refer to Graph 13-5. Which of the lines is most likely to represent marginal cost?

20. a. A  
b. B  
c. C  
d. D