Sample Exam Questions/Chapter 12

1. In the short run, a perfectly competitive firm produces output and earns an economic profit if:
   A) \( P > ATC \).
   B) \( P = ATC \).
   C) \( P < AVC \).
   D) \( AVC > P > ATC \).

2. Perfectly competitive industries are characterized by:
   A) few sellers and many buyers.
   B) consumers who can differentiate between the products of different producers.
   C) goods that are standardized.
   D) a few producers who make up most of the market share of the industry.

3. Suppose that the market for haircuts in a community is perfectly competitive and that the market is initially in long-run equilibrium. Subsequently, an increase in population increases the demand for haircuts. In the short run, we expect that the typical firm is likely to begin:
   A) earning an economic profit.
   B) incurring an economic loss.
   C) experiencing no change in its economic profit.
   D) experiencing neither an economic profit nor an economic loss.

Use the following to answer question 4:

**Figure: Costs and Profits for Tomato Producers**
4. (Figure: Costs and Profits for Tomato Producers) Look at the figure Costs and Profits for Tomato Producers. The market for tomatoes is perfectly competitive, and an individual tomato farmer faces the cost curves shown in the figure. The market price of a bushel of tomatoes is $18. If the market price increases to $20, the farmer's marginal revenue ________ and the profit-maximizing output ________.
A) increases; increases
B) increases; decreases
C) decreases; increases
D) decreases; decreases

5. If the price is greater than the average variable cost and less than the average total cost at the profit-maximizing quantity of output in the short run, a perfectly competitive firm will:
A) produce at an economic loss.
B) produce at an economic profit.
C) shut down production.
D) produce more than the profit-maximizing quantity.

6. A perfectly competitive industry is in a state of long-run equilibrium. Which of the following must be true?
A) $P = MR = MC > ATC.$
B) $P = MR = MC = AVC.$
C) $P = MR = MC = ATC.$
D) $P > MR = MC = AVC.$

Use the following to answer question 7:

<table>
<thead>
<tr>
<th>Table: Total Cost for a Perfectly Competitive Firm</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quantity per Period</td>
</tr>
<tr>
<td>--------------------</td>
</tr>
<tr>
<td>0</td>
</tr>
<tr>
<td>1</td>
</tr>
<tr>
<td>2</td>
</tr>
<tr>
<td>3</td>
</tr>
<tr>
<td>4</td>
</tr>
<tr>
<td>5</td>
</tr>
<tr>
<td>6</td>
</tr>
<tr>
<td>7</td>
</tr>
<tr>
<td>8</td>
</tr>
<tr>
<td>9</td>
</tr>
<tr>
<td>10</td>
</tr>
</tbody>
</table>
7. (Table: Total Cost for a Perfectly Competitive Firm) Look at the table Total Cost for a Perfectly Competitive Firm. The firm will produce at a profit in the short run if the price is at least:
A) $2.00.
B) $2.50.
C) $3.50.
D) $4.26.

Use the following to answer question 8:

<table>
<thead>
<tr>
<th>Quantity of Lawns</th>
<th>Variable Costs</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>$ 0</td>
</tr>
<tr>
<td>10</td>
<td>100</td>
</tr>
<tr>
<td>20</td>
<td>300</td>
</tr>
<tr>
<td>30</td>
<td>500</td>
</tr>
<tr>
<td>40</td>
<td>1,100</td>
</tr>
<tr>
<td>50</td>
<td>1,800</td>
</tr>
</tbody>
</table>

8. (Table: Variable Costs for Lawns) Look at the table Variable Costs for Lawns. During the summer Alex runs a lawn-mowing service, and lawn-mowing is a perfectly competitive industry made up of 100 identical firms. The table shows his variable costs for lawn-mowing and the number of lawns mowed. Alex's fixed cost is $1,000 for the mower. His variable costs include fuel, his time, and mower parts. If the price for mowing a lawn is $60, how much is Alex's total revenue at the profit-maximizing output?
A) $60
B) $1,100
C) $2,400
D) $2,100

9. The short-run industry supply curve:
A) shows the total quantity supplied by all firms in an industry for each possible price when the number of producers is given.
B) is drawn on the assumption that the number of firms in the industry doesn't increase, but it allows for a decrease in the number of firms due to bankrupt firms leaving the industry.
C) is a meaningful concept only if all firms in the industry are identical.
D) is of limited usefulness, since it is not relevant when markets are perfectly competitive.
10. Suppose Sarah's pottery studio is charging the market price, which is just higher than her minimum average total cost. This means that Sarah:
   A) is breaking even.
   B) should shut down immediately.
   C) is earning a small economic profit.
   D) is incurring a small economic loss.

Use the following to answer question 11:

**Figure: The Marginal Decision Rule**

![Graph showing the Marginal Decision Rule]

11. (Figure: Marginal Decision Rule) Look at the figure The Marginal Decision Rule. As long as the price is above the minimum variable cost, this firm should produce quantity _______ where _______ = _______ to maximize economic profit.
   A) $q_1; MR; MC$
   B) $q_2; price; MC$
   C) $q_2; MR; TR$
   D) $q_1; TR; TC$
12. (Table: Variable Costs for Lots) Look at the table Variable Costs for Lots. During the winter, Alexa runs a snow-clearing service, and snow clearing is a perfectly competitive industry. The table provided shows her variable costs for snow clearing and number of lots cleared. Her only fixed cost is $1,000 for a snowplow. Her variable costs include fuel, her time, and hot coffee. If the price per cleared lot is $14, how many lots should Alexa clear?
A) 0
B) 40
C) 50
D) 20

13. (Table: Soybean Cost) The table below shows the total cost (TC) of producing soybeans. Use the table to answer the following question:

<table>
<thead>
<tr>
<th>Quantity of Soybeans (bushels)</th>
<th>Total Cost (TC)</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>12</td>
</tr>
<tr>
<td>1</td>
<td>26</td>
</tr>
<tr>
<td>2</td>
<td>33</td>
</tr>
<tr>
<td>3</td>
<td>42</td>
</tr>
<tr>
<td>4</td>
<td>54</td>
</tr>
<tr>
<td>5</td>
<td>69</td>
</tr>
<tr>
<td>6</td>
<td>84</td>
</tr>
<tr>
<td>7</td>
<td>104</td>
</tr>
</tbody>
</table>
13. (Table: Soybean Cost) Look at the table Soybean Cost. The costs of production of a perfectly competitive soybean farmer are given in the table. If the market price of a bushel of soybeans is $15, what will be the farmer's short-run maximum profit?

A) $75  
B) $69  
C) $6     
D) $5

Use the following to answer question 14:

**Figure: The Perfectly Competitive Firm II**

14. (Figure: The Perfectly Competitive Firm II) Look at the figure The Perfectly Competitive Firm II. If this firm's *MR* curve is *MR*₁, the firm will maximize profit by producing ________ units of output and its economic profit will be ________.

A) *Q*₁; positive  
B) *Q*₂; negative  
C) *Q*₃; positive  
D) *Q*₄; negative

15. For a perfectly competitive firm, marginal revenue:

A) is less than price.  
B) is greater than price.  
C) decreases as the firm increases output.  
D) is equal to price.
16. One characteristic of a perfectly competitive market is that there are ________ sellers of the good or service.
   A) one or two
   B) a few
   C) usually fewer than 10
   D) many

Use the following to answer question 17:

Figure: The Profit Maximizing Firm

17. (Figure: The Profit Maximizing Firm) Look at the figure The Profit Maximizing Firm. The figure shows cost curves for a firm operating in a perfectly competitive market. If the market price is less than $P_2$, the firm will ________ in the short run.
   A) produce $q_1$ and break even
   B) produce $q_1$ and incur a loss
   C) shut down
   D) produce $q_3$ and make a profit
Answer Key

1. A
2. C
3. A
4. A
5. A
6. C
7. D
8. C
9. A
10. C
11. B
12. A
13. C
14. C
15. D
16. D
17. C