Unit 6 Perfect Competition - Practice

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

1. If a Florida strawberry wholesaler is in a perfectly competitive market, that wholesaler will have a ________ share of the market, and consumers will consider her strawberries to be ________. Therefore, ________ advertising will take place in this market.
   a. large; standardized; no
   b. small; standardized; no
   c. small; differentiated; no
   d. large; differentiated; extensive
   e. small; standardized; extensive

2. If a local California avocado stand operates in a perfectly competitive market, that stand owner will be a:
   a. price-maker.
   b. price-taker.
   c. price-discriminator.
   d. price-maximizer.
   e. cost-maximizer.

3. The demand curve for a perfectly competitive firm is:
   a. perfectly inelastic.
   b. perfectly elastic.
   c. downward-sloping.
   d. relatively, but not perfectly elastic.
   e. non-existent.

Figure 58-1: Marginal Revenue, Costs, and Profits

4. (Figure 58-1: Marginal Revenue, Costs, and Profits) In the figure, if market price increases to $20, marginal revenue ________ and profit-maximizing output ________.
   a. increases; increases
   b. increases; decreases
   c. decreases; increases
   d. decreases; decreases
   e. remains constant; remains constant
5. (Table 58-3: Total Cost for a Perfectly Competitive Firm) If the market price is $4.50, the profit-maximizing quantity of output is ________ units.

a. five  

b. seven

c. eight

d. nine

e. ten

6. At the profit-maximizing quantity of output in the figure, total revenue is $________, total cost is $________, and profit is $________.

a. 90; 14; 76

b. 90; 70; 20

c. 30; 42; –12

d. 48; 56; –8

e. 70; 70; 0

**Figure 59-5: Perfectly Competitive Firm**
7. (Figure 59-5: Perfectly Competitive Firm) The figure shows a perfectly competitive firm that faces demand curve $d$, has the cost curves shown, and maximizes profit. Given the market price, the firm's total revenue per day is:
   a. $475.
   b. $600.
   c. $900.
   d. $1,200.
   e. $300.

8. (Figure 59-5: Perfectly Competitive Firm) The figure shows a perfectly competitive firm that faces demand curve $d$, has the cost curves shown, and maximizes profit. Given the price, the firm’s profit per day is:
   a. $250
   b. -$300
   c. $300
   d. $330
   e. -$330

9. In the short run, if $AVC < P < ATC$, a perfectly competitive firm:
   a. produces output and earns an economic profit.
   b. produces output and incurs an economic loss.
   c. does not produce output and earns an economic profit.
   d. does not produce output and earns zero economic profit.
   e. does not produce output and incurs an economic loss.

**Figure 59-6: Short-Run Costs**
10. (Figure 59-6: Short-Run Costs) What level of output represents a price that is breaking even?
   a. $Q$
   b. $S$
   c. $R$
   d. $T$
   e. $O$

11. (Figure 59-6: Short-Run Costs) This firm's short-run supply curve begins at quantity:
   a. $Q$
   b. $R$
   c. $S$
   d. $T$
   e. $O$

12. The shut-down point in the short run is:
   a. the point at which economic profit is zero.
   b. the intersection of the $MC$ and $AFC$ curves.
   c. the intersection of the $MC$ and $ATC$ curves.
   d. the minimum point of $AFC$.
   e. the minimum point of $AVC$. 
13. The figure shows cost curves for a firm operating in a perfectly competitive market. If the market price is $P_4$:
   a. firms will leave the industry and the price will fall in the long run.
   b. there will be economic profits and firms will enter the industry in the long run.
   c. the market supply curve will shift to the left and price will fall in the long run.
   d. the firm will produce $q_4$.
   e. the price will rise in the long run as economic profits fall to zero.

14. If firms are making positive economic profits in the short run, then in the long run:
   a. the short-run industry supply curve will shift leftward.
   b. firms will enter the industry.
   c. industry output will rise and price will rise.
   d. firms will leave the industry.
   e. the price will decrease to where price equals average variable cost.

15. When economic profits in an industry are zero:
   a. firms are really doing badly.
   b. it means that firms are doing as well as they could do in other markets.
   c. firms should exit, so they can make an economic profit in some other market.
   d. the industry is not in long-run equilibrium.
   e. the price will tend to decrease as more firms enter the market.

16. In the long run, each firm in a perfectly competitive industry will:
   a. produce at the point where average variable cost is minimized.
   b. produce where $MR$ is greater than $MC$.
   c. differentiate its goods.
   d. increase its price.
   e. earn a normal profit.

Figure 60-1: Perfectly Competitive Firm
17. (Figure 60-1: Perfectly Competitive Firm) The figure shows a perfectly competitive firm that faces demand curve \( d \), has the cost curves shown, and maximizes profit. In long-run equilibrium, this firm will produce ______ units of output and sell its output at a price of ______.
   a. 100; $1.00
   b. 250; $1.90
   c. 300; $2.00
   d. 400; $3.00
   e. 300; $3.00

18. Bessie wants to calculate the accounting and economic profits on her cattle farm in Nebraska. She pays $30,000 per year for the cost of raising cattle, $80,000 in wages, $20,000 in insurance, and she forgoes $30,000 per year that she could make as a teacher. If her total revenue equals $140,000, that means her accounting profit is ______ and her economic profit is ______.
   a. $10,000; -$20,000
   b. $30,000; -$30,000
   c. -$10,000; -$10,000
   d. $60,000; $30,000
   e. $10,000; -$30,000

19. In the short run:
   a. all inputs are fixed.
   b. all inputs are variable.
   c. some inputs are fixed and some inputs are variable.
   d. all costs are variable.
   e. all costs are fixed.

20. The ______ is the increase in output obtained by hiring an additional worker.
   a. average product
   b. total product
   c. marginal product
   d. marginal cost
   e. average variable cost

21. Diminishing returns to an input set in:
   a. when all inputs are fixed.
   b. when some inputs are fixed and some are variable.
   c. when all inputs are variable.
The table describes Bonnie's production function for Good Z. Assume labor is the only variable input that Bonnie uses to produce Good Z.

<table>
<thead>
<tr>
<th>Quantity of Labors Hired (workers)</th>
<th>Quantity of Good Z Produced (per time period)</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>1</td>
<td>75</td>
</tr>
<tr>
<td>2</td>
<td>150</td>
</tr>
<tr>
<td>3</td>
<td>250</td>
</tr>
<tr>
<td>4</td>
<td>325</td>
</tr>
<tr>
<td>5</td>
<td>375</td>
</tr>
</tbody>
</table>

Table 54-6: Bonnie's Production Function for Good Z

22. (Table 54-6: Bonnie's Production Function for Good Z) The marginal product of labor from hiring the second worker is ________ units of Good Z.
   a. 150
   b. 225
   c. 75
   d. 250
   e. 100

23. (Table 54-6: Bonnie's Production Function for Good Z) Diminishing returns to labor occurs when Bonnie hires the ________ worker.
   a. second
   b. third
   c. fourth
   d. fifth
   e. first

Q = output, FC = fixed cost, VC = variable cost, TC = total cost, MC = marginal cost

<table>
<thead>
<tr>
<th>Q</th>
<th>FC</th>
<th>VC</th>
<th>TC</th>
<th>MC</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>20</td>
<td>10</td>
<td>30</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>20</td>
<td>18</td>
<td>38</td>
<td>13</td>
</tr>
<tr>
<td>3</td>
<td>20</td>
<td>31</td>
<td></td>
<td>17</td>
</tr>
<tr>
<td>4</td>
<td>20</td>
<td></td>
<td>68</td>
<td></td>
</tr>
</tbody>
</table>

Table 55-2: Output and Costs

24. (Table 55-2: Output and Costs) Using the information in the table, when quantity increases from one to two, marginal cost equals:
25. (Table 55-2: Output and Costs) Using the information in the table, when quantity equals four, total variable cost equals:
   a. 48.
   b. 38.
   c. 58.
   d. 28.
   e. 68

26. (Table 55-2: Output and Costs) Using the information in the table, when quantity equals three, average total cost equals:
   a. 13.
   b. 10.
   c. 8.
   d. 17.
   e. 20

27. The long-run average cost curve will be upward sloping when the firm is experiencing:
   a. economies of scale.
   b. diseconomies of scale.
   c. constant returns to scale.
   d. diminishing returns.
   e. efficiencies in production.

28. A university that benefits from lower costs per unit as it grows is an example of:
   a. economies of scale.
   b. diseconomies of scale.
   c. increasing opportunity costs.
   d. scale reduction.
   e. sunk costs.

29. Jacquelyn is a student at a major state university. Which of the following is an example of an implicit cost of her attending college?
   a. tuition
   b. textbooks
   c. the salary that she could have earned working full-time
   d. computer lab fees
   e. a calculator for her calculus class.

30. Profit computed using explicit costs as the only measure of costs is:
   a. explicit profit.
   b. normal profit.
   c. implicit profit.
   d. economic profit
   e. accounting profit.
31. (Table 54-1: Labor and Output) Referring to the table, the marginal product of the fifth worker is:
   a. 8.
   b. 4.
   c. 3.
   d. 40.
   e. 36.

Scenario 54-1: Marginal Product of Labor
32. (Scenario 54-1: Marginal Product of Labor) Using the marginal product of labor curve in the figure, the total product of labor for three workers is:
   a. 51 bushels.
   b. 45 bushels.
   c. 39 bushels.
   d. 15 bushels.
   e. 17 bushels.

<table>
<thead>
<tr>
<th>Quantity of Output</th>
<th>Variable Cost VC</th>
<th>Total Cost TC</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>0</td>
<td>50</td>
</tr>
<tr>
<td>1</td>
<td>50</td>
<td>100</td>
</tr>
<tr>
<td>2</td>
<td>70</td>
<td>120</td>
</tr>
<tr>
<td>3</td>
<td>100</td>
<td>150</td>
</tr>
<tr>
<td>4</td>
<td>140</td>
<td>190</td>
</tr>
<tr>
<td>5</td>
<td></td>
<td>240</td>
</tr>
<tr>
<td>6</td>
<td>250</td>
<td>300</td>
</tr>
<tr>
<td>7</td>
<td>320</td>
<td>370</td>
</tr>
</tbody>
</table>

   Table 55-1: Cost Data

33. (Table 55-1: Cost Data) The table shows some cost data for a firm currently operating in the short run. What is the value of the total fixed cost for this firm?
   a. $40
   b. $50
   c. $100
   d. $70
   e. It is impossible to determine without more information.

34. (Table 55-1: Cost Data) The table shows some cost data for a firm currently operating in the short run. What is the value of the total variable cost for this firm when the firm is producing five units of output?
   a. $50
   b. $240
   c. $60
   d. $190
   e. It is impossible to determine without more information.

35. For Heidi, the marginal cost of producing one additional photograph equals the change in ________ divided by the change in the ________.
   a. total cost; number of photographs
   b. marginal cost; number of photographs
   c. total cost; marginal product of photographs
   d. average cost; number of photographs
   e. average cost; price of photographs

36. If Marie’s Marionettes is operating under conditions of diminishing marginal product, the marginal costs will be:
   a. equal to ATC.
b. decreasing.
c. increasing.
d. constant.
e. equal to zero.

<table>
<thead>
<tr>
<th>Quantity of Bagels (per period)</th>
<th>Total Variable Costs</th>
<th>Total Fixed Costs</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>$0.00</td>
<td>$0.10</td>
</tr>
<tr>
<td>1</td>
<td>0.20</td>
<td>0.10</td>
</tr>
<tr>
<td>2</td>
<td>0.30</td>
<td>0.10</td>
</tr>
<tr>
<td>3</td>
<td>0.35</td>
<td>0.10</td>
</tr>
<tr>
<td>4</td>
<td>0.45</td>
<td>0.10</td>
</tr>
<tr>
<td>5</td>
<td>0.60</td>
<td>0.10</td>
</tr>
<tr>
<td>6</td>
<td>0.80</td>
<td>0.10</td>
</tr>
<tr>
<td>7</td>
<td>1.05</td>
<td>0.10</td>
</tr>
<tr>
<td>8</td>
<td>1.35</td>
<td>0.10</td>
</tr>
</tbody>
</table>

Table 55-3: Costs of Producing Bagels

37. (Table 55-3: Costs of Producing Bagels) The total cost of producing six bagels is:
a. $0.10.
b. $0.20.
c. $0.80.
d. $0.90.
e. $0.15.

38. (Table 55-3: Costs of Producing Bagels) The marginal cost of producing the sixth bagel is:
a. $0.10.
b. $0.15.
c. $0.20.
d. $0.80.
e. $0.60.

Figure 56-1: Long-Run Average Cost

39. (Figure 56-1: Long-Run Average Cost) Output per period in the region from 0 to A indicates that a firm is experiencing:
a. diseconomies of scale.
b. constant returns to scale.
c. decreasing returns to scale.
d. negative costs of production.
e. economies of scale.

40. (Figure 56-1: Long-Run Average Cost) Output per period in the region B to C indicates that a firm is experiencing:
   a. constant returns to scale.
   b. diseconomies of scale.
   c. economies of scale.
   d. falling marginal cost.
   e. increasing returns to scale.

41. In perfect competition:
   a. a firm's total revenue is found by multiplying market price by the firm's quantity of output.
   b. the firm's total revenue curve is a linear, downward-sloping line.
   c. at any price, the greater the quantity sold, the greater is a firm's marginal revenue.
   d. the firm's total revenue curve is nonlinear.
   e. at any price, the greater the quantity sold, the smaller is a firm's marginal revenue.

42. Marginal revenue:
   a. is the slope of the average revenue curve.
   b. equals the market price in perfect competition.
   c. is the change in quantity divided by the change in total revenue.
   d. is the price divided by the change in quantity.
   e. is the total revenue divided by the market price.

43. If price is currently between average variable cost and average total cost, then in the short run a perfectly competitive firm should:
   a. shut down.
   b. continue to produce to minimize losses.
   c. raise price.
   d. increase production to increase profit.
   e. reduce production to increase profit.

Figure 59-4: A Perfectly Competitive Firm in the Short Run

44. (Figure 59-4: A Perfectly Competitive Firm in the Short Run) The firm's total cost of producing its most profitable level of output is:
45. (Figure 59-4: A Perfectly Competitive Firm in the Short Run) The firm's total revenue from the sale of its most profitable level of output is:
   a. \text{GGLD}.
   b. \text{GHB}.
   c. \text{BH}.
   d. \text{DL}.
   e. \text{NFKU}.

46. (Figure 59-4: A Perfectly Competitive Firm in the Short Run) The firm's total economic profit at its most profitable level of output is:
   a. \text{GGLD}.
   b. \text{EFJS}.
   c. \text{EGHS}.
   d. \text{FGLK}.
   e. \text{NFKU}.

47. (Figure 59-4: A Perfectly Competitive Firm in the Short Run) The firm will shut down in the short run if the price falls below:
   a. \text{G}.
   b. \text{F}.
   c. \text{E}.
   d. \text{P}.
   e. \text{N}.

48. (Figure 59-4: A Perfectly Competitive Firm in the Short Run) The firm's short-run supply curve is the:
   a. entire \text{MC} curve.
   b. rising part of the \text{MC} curve beginning at point \text{W}.
   c. rising part of the \text{MC} curve beginning at the point at which the firm starts earning economic profit.
   d. \text{MC} curve below point \text{P}.
   e. rising part of the \text{MC} curve beginning at point \text{W} and ending at point \text{S}.
Unit 6 Perfect Competition - Practice
Answer Section

MULTIPLE CHOICE
1. B
2. B
3. B
4. A
5. C
6. B
7. C
8. C
9. B
10. C
11. A
12. E
13. B
14. B
15. B
16. E
17. B
18. A
19. C
20. C
21. B
22. C
23. C
24. E
25. A
26. D
27. B
28. A
29. C
30. E
31. B
32. A
33. B
34. D
35. A
36. C
37. D
38. C
39. E
40. B
41. A
42. B
43. B
44. C
45. A
46. D
47. D
48. B