1. When Ramona is in consumer equilibrium,
   A) her total utilities of all goods are equal.
   B) she is maximizing her utility, given her income and the prices of goods and services.
   C) her total utility per dollar spent is equal for all goods.
   D) any change in prices would make her worse off.
   Answer: B

2. Which of the following statements is true?
   I. A firm that is not economically efficient does not maximize profit.
   II. Technological efficiency depends only on what is possible.
   III. Economic efficiency depends on the relative costs of resources.
   IV. A technological efficient firm is also economically efficient.
   A) All of them
   B) I, II, IV only
   C) II, III, IV only
   D) I, II, III only
   Answer: D

3. Because each perfectly competitive firm sells a product identical to that of the other firms,
   A) each firm will try to cut prices to increase its market share.
   B) each firm’s output is a perfect substitute for the output of any other firm.
   C) each firm can expect to earn some economic profit.
   D) the demand for each firm’s product is perfectly inelastic.
   Answer: B

4. The marginal product of labor is equal to the
   A) total product divided by the total number of workers hired.
   B) the increase in the total product that results from hiring one more worker.
   C) slope of the marginal product of labor curve.
   D) All of the above.
   Answer: B

5. If Sam has $60.00 each week to spend on gasoline and coffee, and their respective prices are $1.50 per gallon and $3.00 per pound, which of the following equations represents his budget line?
   A) $60.00 = $1.50/Q_g + $3.00/Q_c
   B) $60.00 = Q_g /$1.50 + Q_c /$3.00
   C) $60.00 = $1.50(Q_g) + $3.00(Q_c)
   D) $60.00 = $1.50(Q_g) – $3.00(Q_c)
   Answer: C

6.
If money income increases, a consumer’s budget line
A) becomes flatter.
B) becomes steeper.
C) shifts rightward and its slope does not change.
D) shifts leftward and its slope does not change.
Answer: C

7.
Which of the following will lead to a change in the slopes of your indifference curves between gasoline and movie rentals?
A) a change in your preferences for either of the two goods.
B) only a change in the price of either of the two goods.
C) only a change in your income.
D) both a change in the price of either good and a change in income will change the slopes of your indifference curves.
Answer: A

8.
Your weekly budget for gasoline and movie rentals is $45.00. Referring to the figure above, what is the price per gallon of gasoline?
A) $1.00
B) $1.25
C) $1.50
D) $1.75
Answer: C
9. The substitution effect from a fall in the price of a gallon of gasoline is shown in the above figure by the movement from
   A) point A to point C.
   B) point A to point B.
   C) point B to point C.
   D) point A to point B and then to point C.
   Answer: B

10. In the above figure, when the price of a gallon of gasoline falls, which points in the above figure are used to derive points on the consumer’s demand curve for gasoline?
   A) Points A and B.
   B) Points A and C.
   C) Points B and C.
   D) Points A, B, and C.
   Answer: B

11.
In the above figure, which of the following would happen to Jane’s budget line if the price of a steak dinner fell?
A) It would rotate inward around the vertical intercept, 10 lobster dinners.
B) It would rotate outward around the vertical intercept, 10 lobster dinners.
C) It would rotate inward around the horizontal intercept, 20 steak dinners.
D) It would rotate outward around the horizontal intercept, 20 steak dinners.

We felt that the wording of this question was sufficiently confusing that we decided to give everyone credit for getting it correct.

12.

In the above figure, in response to a higher wage rate, Bob moves from Point B to Point C in choosing the hours he will work each day. For this movement, his substitution effect
A) is smaller than his income effect.
B) is larger than his income effect.
C) works in the same direction as his income effect.
D) Both answers A and C are correct.

Answer: A

13.

Opportunity cost differs from the costs measured by an accountant because opportunity cost includes all
A) profits.
B) implicit costs.
C) conventional depreciation.
D) economic profit.

Answer: B

14.

Suppose Pippi buys an oven for her pizza parlor for $100,000. Pippi’s pizza tasted so pitiful she went out of business 12 months later. She was able to sell the pizza oven for $75,000. This decrease in the value of the oven is
A) the total rental rate on the oven.
B) an explicit cost.
C) economic depreciation.
D) interest forgone.

Answer: C

15.
When the demand for electricity peaks during the hottest days of summer, Florida Power and Light Company can generate more electricity by using more fuel and increasing the working hours of many of its employees. The company cannot, however, increase electric power production by building additional generating capacity. This means that the company is operating in a time horizon that is best described as
A) the market run.
B) the short run.
C) the intermediate run.
D) the long run.
Answer: B

16. Average product of labor is
A) the increase in output that results from a one-unit increase in the quantity of labor employed with all other inputs remaining the same.
B) total amount of output produced.
C) total amount of output produced divided by the quantity of labor employed.
D) total amount of output produced divided by price of the output.
Answer: C

17. When the average product of labor is greater than the marginal product of labor,
A) the marginal product of labor must be increasing as labor increases.
B) there must be increasing marginal returns.
C) the average product of labor is decreasing as labor increases.
D) All of the above.
Answer: C

18. Total fixed cost
A) increases as output increases.
B) does not change as output changes.
C) decreases as output increases.
D) initially decreases and then increases as output increases.
Answer: B

![Graph of Cost (dollars per bagel) vs. Quantity (hundreds of bagels per day)]
The above figure shows the costs at Barney’s Bagel Bakery. At which of the following levels of daily output will the AFC be the lowest?
A) At 2000 bagels.
B) At 3000 bagels.
C) At 3500 bagels.
D) None of the above.
Answer: C and D

20.
The above figure shows the costs at Barney’s Bagel Bakery. Up to which level of daily output will increasing marginal returns in production be experienced at Barney’s Bagel Bakery?
A) Up to 500 bagels daily.
B) Up to 2000 bagels daily.
C) Up to 3000 bagels daily.
D) Up to 3500 bagels daily.
Answer: A

21.
Economies of scale occur when the percentage increase in output
A) exceeds the percentage increase in all inputs.
B) is less than the percentage increase in all inputs.
C) exceeds the percentage decrease in all inputs.
D) is less than the percentage decrease in all inputs.
Answer: A

22.
If General Motors doubles the quantity of all the inputs needed in each month to produce automobiles and the quantity produced increases from 100,000 to 200,000 each month, that would be an example of
A) increasing marginal returns.
B) constant returns to scale.
C) constant marginal returns to all returns.
D) zero returns to scale.
Answer: B

23.
Which of the following is NOT an assumption of perfect competition?
A) many firms
B) many buyers
C) restricted entry into the industry
D) each firm sells an identical product
Answer: C

24.
The difference between a firm’s total revenue and its total opportunity cost is the firm’s
A) normal profit.
B) economic profit.
C) marginal profit.
D) marginal revenue.
Answer: B

25.
In a perfectly competitive industry, the demand for a single firm’s product is
A) perfectly inelastic.
B) perfectly elastic.
C) as elastic as the market demand.
D) inelastic, but not perfectly inelastic.
Answer: B

26. For a perfectly competitive firm, no matter how much the firm produces, price ALWAYS equals
A) marginal product.
B) average total cost.
C) minimum average total cost.
D) marginal revenue.
Answer: D

27. If money income increases, a consumer’s budget line
A) becomes flatter.
B) becomes steeper.
C) shifts rightward and its slope does not change.
D) shifts leftward and its slope does not change.
Answer: C

28. A perfectly competitive firm maximizes its profit by
A) setting its price so that it exceeds the marginal revenue.
B) choosing the right level of output.
C) cutting wages.
D) manipulating demand.
Answer: B

29. Which of the following is always true for a profit maximizing perfectly competitive firm in short-run equilibrium?
A) \( P = ATC \)
B) \( ATC = MC \)
C) \( P = AVC \)
D) \( MC = MR \)
Answer: D

<table>
<thead>
<tr>
<th>Quantity (pounds of cookies)</th>
<th>Total revenue (dollars)</th>
<th>Total cost, (dollars)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>15</td>
<td>13</td>
</tr>
<tr>
<td>2</td>
<td>30</td>
<td>24</td>
</tr>
<tr>
<td>3</td>
<td>45</td>
<td>39</td>
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<tr>
<td>4</td>
<td>60</td>
<td>58</td>
</tr>
<tr>
<td>5</td>
<td>75</td>
<td>81</td>
</tr>
</tbody>
</table>

30.
The table above gives the total revenue and total cost for a perfectly competitive firm producing chocolate chip cookies. If the firm increases its output from 2 pounds of cookies to 3 pounds, the marginal revenue is ____ per pound of cookies.

A) $11  
B) $15  
C) $30  
D) $45

Answer: B

### Quantity | Total fixed cost, $TFC$ (dollars) | Total variable cost, $TVC$ (dollars)
--- | --- | ---
0 | 500 | 0
1 | 500 | 100
2 | 500 | 180
3 | 500 | 220
4 | 500 | 300
5 | 500 | 390
6 | 500 | 500
7 | 500 | 640
8 | 500 | 800
9 | 500 | 1000
10 | 500 | 1250

The figure above depicts the marginal revenue and costs of a perfectly competitive firm. The firm’s profit is maximized when the firm produces

A) 90 units of output.  
B) 130 units of output.  
C) 170 units of output.  
D) 210 units of output.

Answer: C
The table above shows some of the costs for a perfectly competitive firm. The firm will produce 9 units of output if the price per unit is
A) $1750.
B) $200.
C) $300.
D) $500.
Answer: B

In the short run, a perfectly competitive firm will earn an economic profit as long as
A) it maximizes its profit.
B) \( P > AVC \).
C) \( P > AFC \).
D) \( P > ATC \).
Answer: D

The figure above shows a perfectly competitive firm. To maximize its profit, the firm will
A) produce 30 units of output and the price will be $40 each.
B) produce 30 units of output and the price will be $30 each.
C) produce 20 units of output and the price will be $40 each.
D) produce 20 units of output and the price will be $30 each.
Answer: A

The figure above shows a perfectly competitive firm. The firm’s total revenue is
A) $1200.
B) $900.
C) $600.
D) unable to be determined without more information.
Answer: A and D
The figure above shows a perfectly competitive firm. In the short run, the firm will shut down if the price is
A) below $40.
B) below $30.
C) above $40.
D) more information is needed to answer the question.

**Answer: D**

37.
A perfectly competitive firm’s marginal revenue exceeds its marginal cost at its current output. To increase its profit, the firm will
A) lower its price.
B) raise its price.
C) decrease its output.
D) increase its output.

**Answer: D**

38.
New reports indicate that eating turnips helps people remain healthy. The news shifts the demand curve for turnips rightward. In response, new farms enter the turnip industry. During the period in which the new farms are entering, the price of a turnip ____ and the profit of each existing firm ____.
A) rises; rises
B) rises; falls
C) falls; rises
D) falls; falls

**Answer: D**

39.
Suppose the cost curves in the above figure apply to all firms in the industry. If the initial price is $P_1$, firms are
A) making an economic profit and some firms will leave the industry.
B) making an economic profit and some firms will enter the industry.
C) incurring an economic loss and some firms will leave the industry.
D) incurring an economic loss and some firms will enter the industry.

**Answer: C**
The curve $LS_0$ in the above figure is the long-run supply curve of a perfectly competitive industry. As the demand curve shifts rightward, the industry exhibits
A) external economies.
B) external diseconomies.
C) neither external economies nor external diseconomies.
D) technological advancement.

**Answer: B**