

AP Microeconomics Unit 5: Factor Markets Practice Test

Question 1

**A single large hospital system hires all nurses in a city. Assume that this is a for-profit hospital system.**

**Which of the following can we predict about this market?**

- A. The marginal factor cost of labor is less than the supply of labor.
- B. More nurses will be hired than in a competitive labor market.
- C. The quantity of labor hired will be allocatively efficient.
- D. Nurses are paid less than they would be paid in a competitive labor market.
- E. The hospital system will hire the quantity of labor where the supply of labor equals the marginal revenue product of labor.

Question 2

**Which of the following would cause the wage for computer programmers to increase?**

- A. A decrease in the amount of physical capital per computer programmer
- B. An improvement in the education of computer programmers
- C. An increase in the social prestige associated with being a computer programmer
- D. A decrease in the value that computer programmers place on leisure
- E. A minimum wage set below the equilibrium wage in the market for computer programmers

Question 3

**Which of the following is a firm's demand for labor?**

- A. the firm's marginal factor cost (MFC) curve
- B. the firm's long-run average total cost (LRATC) curve
- C. the firm's marginal revenue product of labor ( $MRP_L$ ) curve
- D. the firm's marginal revenue (MR) curve
- E. the firm's marginal revenue product of capital ( $MRP_K$ ) curve

Question 4

The table below shows the marginal revenue product of labor ( $MRP_L$ ) of a firm producing pillows. The firm uses various amounts of labor, and it can sell as many pillows as it wants for \$10.

What is the marginal product of the fourth worker?

- A. 10 pillows
- B. 20 pillows
- C. 50 pillows
- D. 1 pillow
- E. 15 pillows

Question 5

Which of the following best describes a firm's marginal revenue product of capital ( $MRP_K$ )?

- A. the marginal product of capital multiplied by the marginal revenue gained
- B. the horizontal sum of every firm's demand for capital
- C. the additional revenue gained from the sale of one more unit
- D. the additional cost associated with using an additional unit of capital
- E. the additional output gained from using one more unit of capital

Question 6

Oreo cookies are now extremely expensive to purchase. Instead of buying Oreo cookies, I now want to buy Chips Ahoy. What determinant of demand does this likely fall under?

- A. Change in Price of Complementary Good
- B. Change in Price of Substitute Good
- C. Change in Consumer Price Expectations
- D. Change in Number of Consumers in the Market

Question 7

Takis have been taking the market by storm! Everyone and their mom wants in on selling this delicious treats! Companies that never thought about selling Takis-like products are now selling their version of a hot chip. What supply factor is this?

- A. Change in Technology
- B. Government Action
- C. Change in Number of Sellers in the Market

Question 8

**A firm produces truffles by using labor and capital. The price of labor is \$10 per unit, and the price of capital is \$20 per unit. At current output level, the marginal product of labor is 40 truffles and the marginal product of capital is 60 truffles. To reduce the total cost of producing the current quantity, how should the firm change its spending on labor and capital?**

- A.** Labor: no change  
Capital: increase
- B.** Labor: no change  
Capital: no change
- C.** Labor: increase  
Capital: decrease
- D.** Labor: decrease  
Capital: increase

Question 9

**If a monopsony labor market suddenly were transformed into a perfectly competitive labor market, how would the wage and the number of workers employed change?**

- A.** Both would decrease
- B.** Both would increase
- C.** The wage would fall, but employment would increase
- D.** The wage would rise, but employment would decrease

Question 10

**Which of the following best describes a *monopsony* market?**

- A.** many buyers, many sellers
- B.** many buyers, a few sellers
- C.** a few buyers, many sellers
- D.** one buyer, many sellers
- E.** many buyers, one seller

Question 11

**What happens if a minimum wage is imposed in a monopsony labor market?**

- A. The marginal factor cost becomes horizontal at the minimum wage until it hits the labor supply curve.
- B. The marginal factor cost curve is less than the labor supply curve.
- C. The demand for labor becomes vertical.
- D. The labor supply curve becomes vertical at the amount of labor hired in a competitive market.
- E. The demand for labor becomes horizontal.

Question 12

**If the wage rate decreases, which of the following is the most likely outcome?**

- A. people increase the quantity of labor supplied; firms decrease the quantity of labor demanded
- B. people decrease the quantity of labor supplied; firms increase the quantity of labor demanded.
- C. people decrease their leisure and increase their supply of labor
- D. people don't change the quantity of labor supplied; firms increase the quantity of labor demanded
- E. people decide to equalize their leisure and labor usage

Question 13

The market for toothbrushes is perfectly competitive and the labor market for workers for this market is also perfectly competitive. Recently the wage rate for toothbrush workers decreased and the number of toothbrush workers employed increased.

**Which of the following is the most likely cause of the change in the wage rate and number of workers employed described?**

- A. working conditions for toothbrush workers have worsened.
- B. worker productivity in the toothbrush market improves
- C. a large amount of labor exits the toothbrush labor market
- D. the price of toothbrushes increases
- E. the wage rate in another industry decreased

Question 14

The value of a firm's marginal product of labor (VMPL) equals the marginal revenue product of labor ( $MRP_L$ )

**What kind of market does this firm sell its product in?**

- A. an oligopoly market
- B. a monopolistically competitive market
- C. a monopoly market
- D. a perfectly competitive market
- E. a monopsony market

Question 15

Usain's Cobalt produces cobalt packs in a perfectly competitive labor market, and the market wage is \$20 per unit of labor.

The firm's marginal product of the 200<sup>th</sup> unit of labor is 30 cobalt packs in an hour, and the price of a cobalt pack is \$5.

**What is the firm's marginal revenue product of labor ( $MRP_L$ ), and what should its hiring strategy be?**

- A. The marginal revenue product of labor is \$20 and the firm should hire more labor.
- B. The marginal revenue product of labor is \$4000, and the firm should hire more labor.
- C.  $MRP_L$  is \$150; hire more labor.
- D. The marginal revenue product of labor is \$20 and the firm should hire less labor.
- E. The marginal revenue product of labor is \$5 and the firm should hire less labor.

Question 16

A single firm in Aluminum Valley hires computer coders. The market supply of computer coder labor is given here.

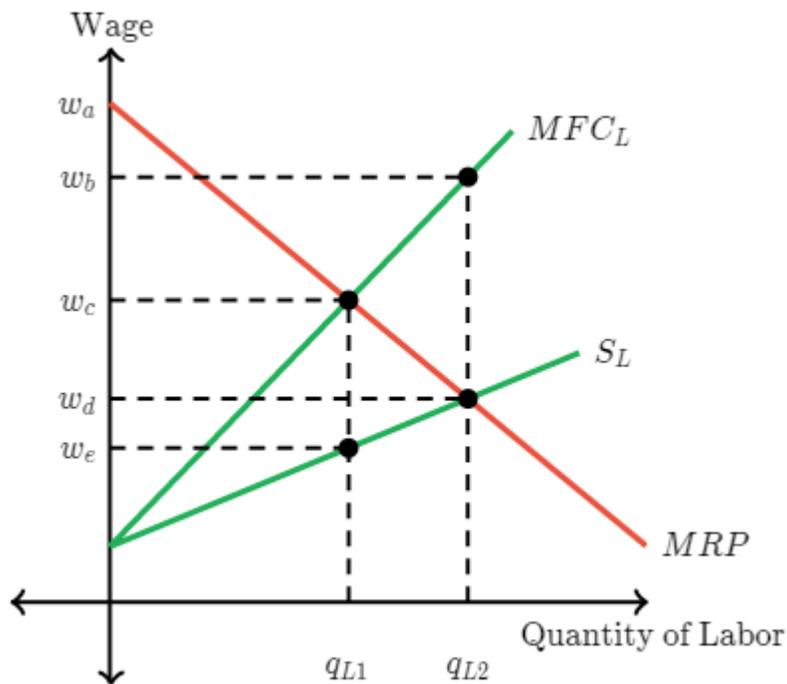
Wage (per hour)	Quantity of labor supplied	Total cost of labor
\$10	1	\$10
\$20	2	\$40
\$30	3	\$90
\$40	4	\$160
\$50	5	\$250

What is the marginal factor cost of the fifth worker?

- A. \$250
- B. \$10
- C. \$70
- D. \$90
- E. \$50

Question 17

The graph shown here illustrates the labor market in a small town.



What is the competitive market wage and what is the monopsony wage?

- A. Competitive market wage:  $w_c$ , Monopsony wage:  $w_e$
- B. Competitive market wage:  $w_d$ , Monopsony wage:  $w_c$
- C. Competitive market wage:  $w_d$ , Monopsony wage:  $w_b$
- D. Competitive market wage:  $w_d$ , Monopsony wage:  $w_e$
- E. Competitive market wage:  $w_c$ , Monopsony wage:  $w_b$

Question 18

Hogwarts is the only firm hiring teachers. The labor supply of wizardry teachers is given in the market shown here.

Wage (per day)	Quantity of labor supplied
\$300	0
\$400	1
\$500	2
\$600	3
\$700	4

**What is the marginal factor cost of the second unit of labor?**

- A. \$500
- B. \$1000
- C. \$600
- D. \$400
- E. \$800

Question 19

**What happens to employment and wages in Maxistan if the preference for leisure increases at the same time worker productivity decreases?**

- A. wages decrease; employment increases
- B. wages decrease; employment decreases
- C. wages decrease; the effect on unemployment is indeterminate
- D. wages increase; employment increases
- E. the effect on wages is indeterminate; employment decreases

Answer Key

1. D

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