
Section I: Multiple Choice (1 point each). Complete the following questions by choosing the one best answer from the choices provided and place the letter corresponding to that answer in the space provided to the left of the question number.

- _____ 1. A monopolist that practices perfect price discrimination:
- a. will never make a profit.
 - b. has a marginal revenue curve that coincides with its' demand curve.
 - c. produces more output and earns greater profits than a single price monopolist.
 - d. both "b" and "c" are true.

Answer questions two and three using the information in the following diagram.

Quantity of Output	Product Price	Total Cost
0	\$375	\$100
1	\$350	\$150
2	\$325	\$225
3	\$300	\$325
4	\$275	\$450
5	\$250	\$600
6	\$225	\$775
7	\$200	\$975

- _____ 2. If the above firm were a single price monopolist and it produced the profit maximizing quantity of output it would
- a. produce seven units of output and earn a \$950 economic profit.
 - b. produce seven of output and earn a \$425 economic profit.
 - c. produce five units of output and earn a \$650 economic profit.
 - d. produce five units of output and earn a \$900 economic profit.
- _____ 3. If the above firm were monopolist practicing perfect price discrimination and produced the profit maximizing quantity of output it would
- a. produce seven units of output and earn a \$950 economic profit.
 - b. produce seven of output and earn a \$425 economic profit.
 - c. produce five units of output and earn a \$650 economic profit.
 - d. produce five units of output and earn a \$900 economic profit.

- _____ 4. Which of the following is a barrier to entry?
- a. Government laws protecting free markets
 - b. Economies of scale
 - c. Downward sloping demand curve
 - d. All of the above are barriers to entry
- _____ 5. What is a necessary condition for a firm to practice price discrimination?
- a. It can't be able to "segment" the market
 - b. It must be a monopoly
 - c. The product can't be easily re-sellable.
 - d. It must be a perfectly competitive firm
- _____ 6. A firm is using two inputs, x and y. If it wants to employ both x and y in a manner that allows it to minimize its' costs, it would hire both in such quantities that:
- a. $MP_x = MP_y$.
 - b. $MRP_x/P_x = MRP_y/P_y = 1$.
 - c. $MP_x/P_x = MP_y/P_y$.
 - d. $P_x = P_y$.
- _____ 7. The marginal revenue product of labor
- a. is equal to the change in total revenue divided by the change in the quantity of labor.
 - b. is also equal to the supply of labor.
 - c. equals the marginal product of labor divided by the wage.
 - d. is described by all of the above.
- _____ 8. When a firm hires three workers it produces \$210 worth of output per day. When it hires four workers, it produces \$300 worth of output per day. Given this information, which of the following is true?
- a. The MRP of the fourth worker is \$90.
 - b. The MRP of the third worker is \$70.
 - c. The MRP of the fourth worker is \$75.
 - d. The firm would be willing to pay the fourth worker up to \$300 per day.
- _____ 9. A monopolist will charge _____ price than would be charged in a perfectly competitive market.
- a. a lower
 - b. a higher
 - c. the same
 - d. Any of the above, depending upon the elasticity of supply.

SECTION II Short Answer/Essay/Problems

Answer the following questions using the information provided. Use graphs when necessary. Points as indicated.

1. Describe verbally and show graphically the market faced by a pure single price monopolist. Be sure to indicate the quantity of output produced, total revenue, total cost, price, and economic profits - if they exist, assuming the average total cost curve dips below the demand curve. **On a separate graph** show the quantity of output produced, total revenue, total cost, and economic profits - if they exist for the same monopolistic firm if it were to practice perfect price discrimination. Be sure to mention in which scenario (single price or perfect price discrimination) the firm would produce more output and in which scenario the firm would earn greater profits. **(9 points)**

2. A firm is seeking to hire labor and capital in a way that will allow it to maximize profits. The price of labor is \$350 and the price of capital is \$250. Answer parts a through c using this information. **(6 points)**

a. If the marginal revenue product of labor is \$350 and the marginal revenue product of capital is \$250, how should the firm adjust its input mixture?

Labor	Use More	Use Less	No Change Necessary
Capital	Use More	Use Less	No Change Necessary

b. If the marginal revenue product of labor is \$300 and the marginal revenue product of capital is \$300, how should the firm adjust its input mixture?

Labor	Use More	Use Less	No Change Necessary
Capital	Use More	Use Less	No Change Necessary

c. If the marginal revenue product of labor is \$420 and the marginal revenue product of capital is \$150, how should the firm adjust its input mixture?

Labor	Use More	Use Less	No Change Necessary
Capital	Use More	Use Less	No Change Necessary