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Homework III  
Economics 365  
Fall 2008

Name \_\_\_\_\_

SS# \_\_\_\_\_

You may use your class notes, your textbook, and any other written material that you find useful. However, you may not work with anyone else or consult anyone else when answering the questions, including other faculty members or other students.

(10 points) Answer both of the following essay questions (write only on the paper provided):

1. Carefully define what is meant by both isocost and isoquant curves. Suppose that the government requires hospitals to use a fixed ratio of Doctors to Nurses in their production of hospital services. Using isocost and isoquant graphs, show and discuss the likely impact of this regulation upon long-run costs for hospitals. Carefully discuss any assumptions you must make in order to answer the question. Briefly explain your answer.

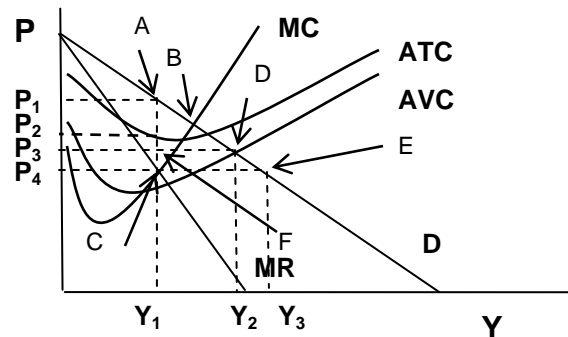
2. Briefly define what is meant by a competitive market. Using graphs show the competitive market equilibrium for both a representative firm and the market in both the short-run and the long-run. On your graphs for the firm be sure to show profits, average costs, total revenue, price, marginal costs, and marginal revenue. Briefly explain your answers.

(15 points) Answer all of the following 15 multiple-choice questions. Make sure that your answers are coded in the answer sheet provided.

- A perfectly competitive market's long-run supply curve is upward sloping when the industry is typified by:
  - Increasing input prices with entry of new firms.
  - Decreasing input prices with entry of new firms.
  - Constant input prices with exit of existing firms.
  - Increasing input prices with exit of existing firms.
- The characteristics of a perfectly competitive firm include all of the following except:
  - Full information to all participants in the market.
  - Many buyers and sellers in the market.
  - Entry barriers.
  - Homogeneous product.
- Any point on the long-run average cost curve shows, for the given level of output, the level of average costs that:
  - Minimize the average costs of producing that output.
  - Maximize the average costs of producing that output.
  - Minimize the marginal costs of producing that output.
  - Maximize the marginal costs of producing that output.
- A perfectly competitive, profit maximizing firm should shut down in the long-run if:
  - Profit is positive.
  - Profit is zero.
  - Profit is negative.
  - Price is less than average fixed costs.
- Suppose that a firm is in the long run and is currently minimizing its costs of production. If the wage rate then increases, what should this firm do in order to minimize its costs of production?
  - Increase its use of labor and decrease its use of capital.
  - Increase its use of capital and decrease its use of labor.
  - Increase its use of both capital and labor.
  - Decrease its use of both capital and labor.

- Which of the following statements are true?
  - all profit maximizing firms that are producing do so where MR equals MC.
  - a firm producing where MR equals MC must be maximizing profit.
  - Both statements are true.
  - Both statements are false.
  - I is true while II is false.
  - I is false while II is true.
- Which of the following statements are true?
  - Market demand is larger than firm demand for monopoly firms.
  - Monopoly power ensures that the firm will make a positive profit.
  - Both statements are true.
  - Both statements are false.
  - I is true while II is false.
  - I is false while II is true.

Use the following graph to answer questions 8 and 9



- The deadweight loss of a profit maximizing monopolist is illustrated in the graph above by the area encompassed by:
  - $P_1$  to point A to point F to  $P_3$ .
  - A to D to F.
  - A to B to C.
  - A to C to E.
- The profit maximizing monopolist will produce at what output level, charge what price and make what profit?
  - $Y_1$ ,  $P_1$ , and  $(P_1 - P_2)$  times  $Y_1$ .
  - $Y_1$ ,  $P_2$ , and  $(P_2 - P_1)$  times  $Y_1$ .
  - $Y_3$ ,  $P_4$ , and  $(P_1 - P_4)$  times  $Y_3$ .
  - $Y_2$ ,  $P_3$ , and  $(P_3 - P_4)$  times  $Y_2$ .

10. Second degree price discrimination occurs when the firm charges:
- A. Each customer a different price based on the customer's willingness to pay.
  - B. Charges a price based upon the customer's level of consumption.
  - C. Customers are divided into groups and each group is charged a different price.
  - D. Customers are charged different prices based upon their geographic area.
11. Which of the following statements are true?
- I. Monopolies always have more incentive to innovate than perfectly competitive firms.
  - II. The incentive to innovate is the firm's interest in the long-run health of the nation's economy.
- A. Both statements are true.
  - B. Both statements are false.
  - C. I is true while II is false.
  - D. I is false while II is true.
12. A conditional factor demand curve shows a firm's demand for an input given:
- A. profit maximizing output and input prices.
  - B. profit maximizing output and output prices.
  - C. input prices.
  - D. output prices.
13. Which of the following statements are true?
- I. Average variable cost curves are always u-shaped.
  - II. Average total cost curves are always u-shaped.
- A. Both statements are true.
  - B. Both statements are false.
  - C. I is true while II is false.
  - D. I is false while II is true.
14. Producer surplus:
- A. equals profit.
  - B. equals profit in the short-run.
  - C. equals profit in the long-run.
  - D. is always less than profit.
15. In which of the following situations will consumers pay the largest percentage of a tax imposed on a good?
- A. The market is a monopoly and demand is relatively elastic.
  - B. The market is perfectly competitive with increasing costs in the long-run while market demand is relatively inelastic.
  - C. The market is a monopoly and demand is relatively inelastic.
  - D. The market is perfectly competitive with constant costs in the long-run while market demand is relatively elastic.