RAMAKRISHNA MISSION VIDYAMANDIRA

(Residential Autonomous College affiliated to University of Calcutta)

B.A./B.Sc. SECOND SEMESTER EXAMINATION, AUGUST 2021

FIRST YEAR [BATCH 2020-23]

Date : 10/08/2021 **ECONOMICS (HONOURS)**

Time : 11.00 am – 1.00 pm **Paper : III [CC3]** Full Marks : 50

Answer **any four** of the following questions: [4×3]

1. Why would a firm that incurs losses choose to produce rather than shut down?

2. True or false: A firm should always produce at an output at which long-run average cost is minimized. Explain.

3. Suppose the government regulates the price of a good to be no lower than some minimum level. Can such a minimum price make producers as a whole worse off? Explain.

4. A monopolist firm faces a demand with constant elasticity of –2.0. It has a constant marginal cost of $20 per unit and sets a price to maximize profit. If marginal cost should increase by 25 percent, would the price charged also rise by 25 percent?

5. Suppose a firm can practice perfect, first-degree price discrimination. What is the lowest price it will charge, and what will its total output be?

6. Some experts have argued that too many brands of breakfast cereal are on the market. Give an argument to support this view. Give an argument against it.

Answer **any one** of the following questions: [1×8]

7. Suppose the airline industry consisted of only two firms: American and Texas Air Corp. Let the two firms have identical cost functions, $C(q) = 40q$. Assume the demand curve for the industry is given by $P = 100 – Q$ and that each firm expects the other to behave as a Cournot competitor.

   Calculate the Cournot-Nash equilibrium for each firm, assuming that each chooses the output level that maximizes its profits when taking its rival's output as given. What are the profits of each firm?

8. Discuss graphically the case of excess capacity in case of monopolistic competition.

Answer **any two** of the following questions: [2×15]

9. Suppose that two competing firms, A and B, produce a homogeneous good. Both firms have a marginal cost of MC = $50. Describe what would happen to output and price in each of the following situations if the firms are at (i) Cournot equilibrium, (ii) collusive equilibrium, and (iii) Bertrand equilibrium.

   a) Because Firm A must increase wages, its MC increases to $80.

   b) The marginal cost of both firms increases.

   c) The demand curve shifts to the right. (6+5+4)

10. A monopolist faces the demand curve P = 11 – Q, where P is measured in dollars per unit and Q in thousands of units. The monopolist has a constant average cost of $6 per unit.

    a) Draw the average and marginal revenue curves and the average and marginal cost curves. What are the monopolist's profit-maximizing price and quantity? What is the resulting profit? Calculate the firm's degree of monopoly power using the Lerner index.

    b) A government regulatory agency sets a price ceiling of $7 per unit. What quantity will be produced, and what will the firm's profit be? What happens to the degree of monopoly power?

    c) What price ceiling yields the largest level of output? What is that level of output? What is the firm's degree of monopoly power at this price? (6+5+4)

11. Suppose the market for widgets can be described by the following equations: *Demand*: $P = 10 - Q$ *Supply*: $P = Q - 4$ where P is the price in dollars per unit and Q is the quantity in thousands of units. Then:

    a) What is the equilibrium price and quantity?

    b) Suppose the government imposes a tax of $1 per unit to reduce widget consumption and raise government revenues. What will the new equilibrium quantity be? What price will the buyer pay? What amount per unit will the seller receive?

    c) Suppose the government has a change of heart about the importance of widgets to the happiness of the American public. The tax is removed and a subsidy of $1 per unit granted to widget producers. What will the equilibrium quantity be? What price will the buyer pay? What amount per unit (including the subsidy) will the seller receive? What will be the total cost to the government? (3+7+5)

12. Discuss in detail the notion of constant cost industry, increasing cost industry and decreasing cost industry. (5+5+5)

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