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THE OPEN UNIVERSITY OF SRI LANKA
COMMONWEALTH EXECUTIVE MASTER OF BUSINESS/PUBLIC ADMINISTRATION PROGRAMME
FINAL EXAMINATION – 2020 AUGUST
MSP9305/MCP2605 – MANAGERIAL ECONOMICS
DURATION: THREE (03) HOURS

DATE: 26.08.2020 TIME: 1.30 PM – 4.30 PM

Answer any four (04) questions. All questions carry equal marks.
Use of a non programmable calculator is allowed.

Question No. 01

A) "In modern day dynamic environment profitability and even survival of a firm could depend on, it entering the global markets and competing worldwide. What could be the restrictions and complications these firms encounter in doing business abroad? Explain with examples.
(07 Marks)

B) a, How relevant are the Profit Maximization, Sales Maximization and Principal/Agent theory in explaining the behavior of modern day firms? Explain with examples.

b, The following equations provide the relationship between advertizing expenditure and sales of a firm that operates in two different regions. (Figures in Rs. Million)

$S_1 = 24 + A_1 - 0.25A_1^2$ $S_2 = 36 + 3A_2 - A_2^2$

S_1- Sales of region one. S_2- Sales of region two.

A_1- Advertising expenditure of region one. A_2- Advertising expenditure of region two.

i. To maximize sales how much should the firm spend on advertizing in each region?

ii. Prove that your answer to part (i) is to maximize sales rather than minimize.

iii. Would you recommend the firm to maximize sales? Why, or why not? Explain.
(13 Marks)

C) Using illustrations answer the following question.
Why should the government pay attention to Elasticity of Demand when it selects goods and services on which to levy excise taxes? **(05 Marks)**

Question No. 02.

A) a. On what basis a profit maximizing firm hires variable factor;

i. if labour is the variable factor and capital is fixed?

ii. if capital is the variable factor and labour is fixed? Explain. **(06 Marks)**

b. The production function of a manufacturing firm given as;

$Q = 2K^{0.5} L^{0.5}$ (K-Capital, L-Labour, Q- Output in units)

i. If the unit price of the product is Rs. 1500/= and the wage rate is Rs. 2500/=, how many labourers should the profit maximizing firm hire when the capital stock of the firm is fixed at 25 units?

ii. Would the answer to (i) differ, if the unit price of the product is Rs.1800/= and the wage rate is Rs.3600/= and the capital stock of the firm is fixed at 36 units? **(05 Marks)**

B) a. What does "Optimum Expansion Path" mean? What is the condition that has to be met when the firm moves from one efficient production point to another? Explain using illustrations. **(04 Marks)**

b. The long run production function of a firm given as;

$Q = 100K^{0.5} L^{0.5}$ (K-Capital, L-Labour, Q- Output in units)

i. If the unit price of Labor and Capital is Rs. 9/= and Rs.16 /= respectively, determine the equation for expansion path.

ii. Find the efficient combination of inputs required to produce 3600 units.

iii. If the unit price of labour increases to Rs.16/=, same as capital , find the efficient combination of inputs required to produce 3600 units.

Using illustrations explain how the labour and capital input combination change compared to the combination in part (ii)

iv. What is the nature of returns to scale the above production function reflect? Explain using illustrations. **(10 Marks)**

Question No. 03.

A) Using illustrations explain whether you "agree" or "disagree" with the following statements.

a. The Monopolist operates in the elastic region of demand as in the inelastic region the firm can increase total revenue and reduce total cost by reducing output.

b. Compared to pricing under Perfect Competition, Monopoly pricing results in allocative inefficiency. **(15 Marks)**

B) **a.** What factors could make Monopolist operate multi plants? Explain.

b. A Monopolist operates two separate plants; A & B.

Demand curve faced by the firm given as; $P = 144 - 1.5Q$ (P - Price, Rs./Q- Output, units)

$Q = Q_A + Q_B$

Total Cost of the two plants given as; $TC_A = 3Q_A^2$ $TC_B = Q_B^2$

Determine; i. The level of output produced by each plant.

ii. The price charged. **(10 Marks)**

Question No. 04.

A) **a.** "In Monopolistically Competitive markets both productive and allocative efficiency occur in the long run" Do you agree? Explain using illustrations.

b. A Monopolistically Competitive firm is facing the following demand and cost schedules for a particular product in the short run.

$Q_d = 320 - 10P$ (Q- Output, Units/ P – Price, Rs.) $TC = 1120 + 12Q$ (Total Cost)

i. Calculate the firm's economic profit/Loss.

ii. Based on the answer to part (i), how would the firm behave in the long run? Explain.

(12 Marks)

B) **a.** "According to Kinked-Demand curve theory, price of the product is relatively inflexible in Oligopolistic markets." Do you agree? Explain using illustrations.

b. Consider the details of an item produced by an oligopoly firm, given below.

Above the kink D_1; $Q1 = 80 - P_1$ Below the kink D_2; $Q_2 = 48 - 0.5\ P_2$

(Q- Output, Units/ Price, Rs.)

Total Cost function of the firm given as; $TC = 24 + 34Q + 0.25Q^2$

i. Find the firm's output and the price at the kink.

ii. Calculate the firm's profit.

iii. Are the output, price and profit optimal? Explain.

iv. Using an illustration explain the findings. **(13 Marks)**

Question No. 05.

A) **a.** "Price discrimination allows a Monopolist to capture part of the consumer surplus that could have resulted from uniform pricing"

Using illustrations explain how the firm capture consumer surplus under each type of price discrimination.

b. Suppose a monopolist has two different groups of clients and the demand equations of each group, given as;

$Q_A = 320 - 20P$ $Q_B = 280 - 5P$ (Q- Output, Units/ Price, Rs.)

Firms total cost function is given as;

$TC(Q) = 8Q_T$ $Q_T = Q_A + Q_B$

i. If the firm is to practice third degree price discrimination, find the profit maximizing price and output of each market.

ii. If the firm is unable to engage in price discrimination, find the profit maximizing price and output.

iii. Prove that firm is able to make higher profit under price discrimination than when charging a single price. **(14 Marks)**

B) **a.** Providing examples, explain the following;

i. . Cost – Plus Pricing. **ii.** Transfer Pricing **iii.** Two Part Tariffs.

b. Could a firm possibly ignore the Price Elasticity of Demand of the product when it sets the price on the basis of Cost – Plus pricing? Explain. **(11 Marks)**