

THE OPEN UNIVERSITY OF SRI LANKA
COMMONWEALTH EXECUTIVE MASTER OF BUSINESS/PUBLIC
ADMINISTRATION
FINAL EXAMINATION - AUGUST 2013
MCP 2605 – MANAGERIAL ECONOMICS
DURATION: THREE (03) HOURS



Date: 07.08.2013

Time: 9.30 am – 12.30 pm

Instructions:

- Answer Part A and Three (03) questions from Part B.
- *Illegible hand writing may cause loss of marks.*
- *Non programmable calculators are allowed.*

PART A

QUESTION 1

a) “Profit Maximization and Shareholder Wealth Maximization are goals of a firm in countries across the world. But apart from Profit Maximization, firms have been found to have other goals as well”.

- What are the limitations of Profit Maximization Model?
- What other goals the firms may have other than Profit Maximization? Explain taking other theories that have been developed to explain the behavior of firms, into account.

(7 Marks)

b) “It is important to recognize that multinational firms encounter restrictions and complications, which they must consider in doing business abroad”.

What are the restrictions and complications, that the multinationals encounter in doing business abroad”. Explain using examples.

(7 Marks)

c) A firm carried out a study to estimate effects of advertising expenditures on sales of one of their soft drinks, “Quench” in two regions. They found the relationship as;

$$R_1 = 24 + 2A_1 - 0.5A_1^2$$

$$R_2 = 15 + 3A_2 - 1A_2^2$$

R_1 = Sales of Region 1

R_2 = Sales of Region 2

A_1 = Advertising expenditure of region 1 A_2 = Advertising expenditure of region 2

- To maximize sales, how much the firm should spend for advertizing in each region?

- ii) Prove that your answer to the above (i); is to maximize sales.
 iii) Would you recommend that the firm should attempt to maximize sales? Provide reasons for your answer.

(7 Marks)

- d) Would the nature of Cross-Price elasticity for substitute and complementary goods, is as same as the nature of Cross-Advertising Elasticity for substitutes and complementary goods? Explain using examples.

(7 Marks)

- e) Suppose the demand function for good 'x' is estimated as

$$Q_x = 4800 - 24P_x + 0.1I + 20P_y + 0.5A$$

P_x – Price of good x, I – Consumer income,

P_y – Price of good y A – Advertising expenditure

Suppose P_x – Rs. 120/= I – Rs. 20,000/=

P_y – Rs. 100/= A – Rs. 160/=

- i) What is the demand of 'x', at initial prices, income and advertising expenditure.
 ii) Determine what effect a price increase would have on the total revenue generated by selling good x .
 iii) How would the sales of good 'x' change during periods of rising and declining incomes?
 iv) Calculate Cross-Price Elasticity between goods x and y. Are they substitutes or complementary goods? Explain your answer.
 v) Assess the impact of level of advertising expenditure on the sales of good x.

(12 Marks)

(Total – 40 Marks)

PART B

QUESTION 2

“An understanding of Economics is important to Managerial decision making. An effective way of demonstrating this importance is to cite real world examples gathered from the popular press, other sources and also from the findings of various research studies, on the use of economics in managerial decision making”. Discuss.

(20 Marks)

QUESTION 3

- a) “At different prices, the quantity demanded shown by the demand curve correspond to the points of tangency between Budget Constraint and Indifference Curves” Do you agree? Explain using illustrations.

(6 Marks)

- b) Using Indifference Curve Analysis explain how the behavior of consumers change when quantity discounts are offered for a certain good.

(5 Marks)

- c) A utility function of a person given as; $U = S^{0.5} C^{0.5}$

$$S = \text{Shoes} \quad C = \text{Clothing}$$

The person has Rs.9600/= to be spent on two goods. In a nearby shop a pair of shoes is priced at the 600/= and unit of clothing at Rs.400/=

- i) Find the quantities of the two items that will maximize his satisfaction.
- ii) Suppose in a discount store, for which he will have to spend Rs.1600/= for traveling, same shoes and clothing are available for Rs.400/= a pair of shoes and for Rs.200/= a unit of clothing. Find the quantities of two items that will maximize person's satisfaction if he purchases from the discount shop.
- iii) From which shop will he purchase the two items? Explain your answer.

(09 Marks)

QUESTION 4

- a) Using illustration explain whether the following statements are 'true' or 'false'.

- i) The Marginal Revenue Product Function of labour (MRP_L) in a firm is the demand curve for labour of that firm.
- ii) A firm achieves efficient condition of product at;

$$\frac{MP_L}{w} = \frac{MP_k}{r}$$

MP_L – Marginal Product of Labour w – unit price of labour

MP_k – Marginal Product of Capital r – unit price of capital

(10 Marks)

- b)
 - i) What is Optimum Expansion Path? Explain using illustrations.
 - ii) Suppose the production function of good 'x' is given as;

$$Q_x = 120K^{0.5}L^{0.5}$$

- a) If the price of a unit of labour is Rs.100/= and a unit of capital is Rs. 225/= determine the expansion path for the firm.
- b) To produce 3600 units of 'x', one of the input combinations is to use 25 units of capital and 36 units of labour. Is this an efficient input combination? Justify your answer with necessary calculations.

(10 Marks)

QUESTION 5

- a) There are situations where Monopolist operates more than one plant.
- i) What factors make the Monopolist engage in multi-plant operations? Explain.
 - ii) Unlike a simple Monopolist what major factors should the Multi-Plant Monopolist focus on? Explain.
 - iii) Suppose a Monopolist faces the following Demand and Cost Functions.

$$P = 240 - 2Q$$

P – Price Q = Output

Firm has two plants 'a' and 'b'. The total cost of each given as;

$$TC_a = 0.5Q_a^2 \qquad TC_b = 2Q_b^2$$

Consider output of plant 'a' as Q_a and plant 'b' as Q_b

Determine the profit maximizing level of output produced by each plant and the market price.

(09 Marks)

- b) i) “Compared to Perfectly Competitive markets Monopolist pricing results in allocative inefficiency and also it causes redistribution of income from consumers to the owners of the Monopoly” Do you agree? Explain using illustrations.

(6 Marks)

- ii) The demand function of a Monopolist given as,

$$P = 60 - 2Q$$

P – Price Q = Output

The Marginal Cost of the firm is constant at Rs. 20.

(MC = 20)

- a) Find the profit maximizing price and output.
- b) Calculate the Dead Weight Loss under Monopoly.

(5 Marks)

QUESTION 6

- a) Consider a product for which demand is given by the equation.

$$P = 420 - Q_T$$

$Q_T =$ Total amount produced by all the suppliers in the market.

Assume that firm's Marginal and Average Costs are equal and given as; MC = AC=60.

- i) What would be the profit maximizing price and quantity if the market is a Monopoly.

- ii) How would the answer for above (i) change if the market becomes Perfectly Competitive.
- iii) Suppose the market becomes a duopoly. Consider the output of firm A as q_1 and firm B as q_2 .

$$(Q_T = q_1 + q_2)$$

According to Cournot model how would the two firms determine their profit maximizing output? What would be the market price?

(12 Marks)

- b) The payoff matrix for the four possible combinations of advertizing strategy available for two firms operating in an Oligopolistic market is given below.

		(Firm 02)	
		High level of Advertising	Low level of Advertising
(Firm 01)	High level Advertising	40,40	60,20
	Low level Advertising	20,60	50,50

Given figures indicates the profit level in millions under each strategy.

Analyze the above pay-off matrix and explain how it provides insight into the dilemma faced by the two firms the Oligopolistic market.

(08 Marks)

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