THE OPEN UNIVERSITY OF SRI LANKA
BACHELOR OF MANAGEMENT STUDIES – LEVEL 5
FINAL EXAMINATION 2013
MANAGERIAL ECONOMICS – MCU3207
DURATION THREE (03) HOURS

DATE: 16.06.2013	**TIME: 1.30pm – 4.30pm**

Answer Part A and any three (03) questions from Part B.

PART A

Question No. (01)

(a) "Although managerial economics is based primarily on micro-economics, it is important for managers to understand macro-economics" Do you agree? Explain. (8 Marks)

(b) "Traditionally, economists have assumed that the objective of the firm is profit maximization. However the concept of profit maximization has been attacked as incomplete by many writers. They point out that the firms may have other objectives".

(i) What are these objectives? Explain.

(ii) In addition to Profit Maximization theory, what other theories have been developed to explain the behavior of firms? Explain.

(8 Marks)

(c) A friend of yours has been running a fast food out let utilizing his own premises and he himself manages the place. He once stated to you that, according to his accountant's calculations his business is generating a reasonable profit and he is extremely happy about the present situation.

As a student of managerial economics do your agree with his statement? If not, explain the reasons for not agreeing with his statement. (6 Marks)

(d) Suppose at price '0', 240 ice-creams are demanded, and when price increases by the 4/= quantity demanded comes down by 20 units. At price "0", 80 ice-creams are supplied and when price increase by Rs. 5/=. quantity supplied increases by 15 units.

(i) Derive the demand and supply equations for ice-creams.

(ii) Find the Equilibrium Price and Quantity of Ice Creams.

(iii) Using illustrations explain how the demand/supply condition for ice cream changes under following situations.

- Country is experiencing cold and rainy weather conditions.
- Price of ingredients needed to make ice-creams increases.
- A medical report stated that eating too many ice-creams is harmful to health.
- There has been a technological improvement in the production of ice creams.

(12 Marks)

(e) The demand equation of a good, given as;

$$Q_{d=}136 - 4p$$

(i) Find the Total and Marginal revenue functions.

(ii) Find the revenue maximizing output.

(iii) If the cost function is given as;

$TC = 40 + 4Q + 0.5Q^2$

Find the profit maximizing price and output. (6 Marks)

(Total 40 Marks)

PART B

Question No. (02)

(a) "Information about price elasticity can be very useful to managers as they contemplate on pricing decisions "Do you agree? Explain, using illustrations (6 Marks)

(b) A firm manufactures product "A" and the management believes price elasticity of demand of A is -1.6. Currently the price of A is Rs.48/= and the quantity demanded at that price is 2400 units.

i) If the price is increased to Rs.60/=, how many units of product "A" will the firm be able to sell?

ii) How much will the total revenue earn from product "A" change as a result of the price increase? (5 Marks)

(c) Explain weather the following statements are, "true" or "false".

i) Cross Price Elasticity between natural gas and electricity is positive.

ii) Cross Price Elasticity between personal computers and software is negative.

iii) When the supply curve is more elastic, the effect of change in demand will be greater on quantity than on the price of the product. (9 Marks)

Question No. (03)

(a) Is the law of Diminishing Marginal Returns, a short run or long run phenomenon? Explain. (4 Marks)

(b) The production details of a particular item is given below. Suppose unit price of the product is Rs.100/=.

i) Fill in the table.

Q_L	TP_L	MP_L	AP_L	MR	MRP_L
1	6				
2	18				
3	36				
4	52				
5	60				
6	60				
7	56				

Q_L = quantity of labour
TP_L = total product of labour
MP_L = marginal product of labour
AP_L = average product of labour
MR = marginal revenue
MRP_L = marginal revenue product of labour

ii) Identify the stages of production. Explain using illustrations.
iii) If the wage rate is 1600/=, how many workers should the firm hire? Explain your answer. (10 Marks)

(c) Prove that, a firm achieves the optimum level of production in the long run at;

$$\frac{MP_L}{P_L} = \frac{MP_K}{P_K}$$

MP_L = Marginal Product of Labour P_L = Price of a unit of labour
MP_K = Marginal Priduct of Capital P_K = Price of a unit of capital

(06 Marks)

Question No. (04)

(a) Using illustrations, explain the relationship between Average Cost and Marginal Cost. (03 Marks)

(b) The total Cost Function of a firm is given as;

$$TC = 480 + 4Q - 0.06Q^2 + 0.002Q^3$$

i) Determine the level of Fixed Cost and the Average Fixed Cost at out put 12.
ii) Determine the Total Variable Cost and the Average Variable Cost.
iii) Find the level of output at which the Average Variable Cost is the lowest.
iv) Find the Marginal Cost and the Output level at which the Marginal Cost is the lowest.
v) Find the level of output at which Marginal Cost equals Average Cost.

(12 Marks)

(c) "Highly leveraged firm experiences more variation in profits for a given percentage change in output than a less leveraged firm". Do you agree? Explain.

(05 Marks)

Question No. (05)

(a) The course of action adopted by managers of an unprofitable firm should be based on, a consideration of the alternatives. One option would be to continue producing at the least unprofitable rate of output. Another would be to shut down operation.

i) How would a firm operating in a Perfectly Competitive industry make the closing down decisions? Explain using illustrations. (07 Marks)

ii) The Total Variable Cost of a firm facing a horizontal demand curve, given as;

$$TVC = 72Q - 12Q^2 + Q^3$$

Below what price should the firm shut down operations? (05 Marks)

(b) The demand and supply equations of a Perfectly Competitive industry, given below.

$Q_d = 28000 - 40p$ $Q_s = 8000 + 10p$

i) Determine the equilibrium price and quantity.
Suppose a firm in the market has the following cost equation.

$$TC = 100 + 4Q + Q^2$$

ii) Find the profit maximizing output.
iii) Calculate the firm's profit or loss.
iv) If the firm attempts to sell its product at a higher price than the market equilibrium price what will be the outcome? (08 Marks)

Question No. 06

Explain whether the following statements are, 'true' or 'false'. Use illustrations where possible.

i) Compare to Perfect Competition, Monopoly Pricing results in allocative inefficiency because under Monopoly not enough output is produced. (07 Marks)
ii) Firms operating in a Monopolistically Competitive Environment can make Economic Profit in the Long Run. (06 Marks)
iii) The revenue maximizing output of a Monopolist is same as its profit maximizing output.

(07 Marks)