

EASTERN UNIVERSITY
FACULTY OF COMMERCE AND MANAGEMENT
Final Year First Semester Examination in Commerce- 2007/08
(Repeat)(July-2008)
ECN 4064 Managerial Economics



Answer all questions

- 1.
- (i) Why managerial economics is essential for a firm?
(03 Marks)
- (ii) What is law of demand, and what does it imply about the shape of a demand curve?
(04 Marks)
- (iv) How Arc and point elasticity give different interpretation for a firm
(06 Marks)
- (v) The firm that produces Video machines is considering lowering the price of its product from 80000/= to 60000/=.The company's market analysts have estimated the price elasticity of demand to be -2 over this price range. Presently, this firm sells 1000 Video recorders per month.
- (i) What will be the new quantity sold if the price is lowered to 60000/=
(04 Marks)
- (ii) What will be the new level of total revenue of the firm?
(03 Marks)
(Total Marks 20)
2. (i) Suppose a firm uses inputs of labor L and capital K to produce its output Q. According to the production function $Q = f(L, K) = 10 L^{0.5}, K^{0.5}$, Labor is paid an hourly wage (w) rate of 20/= and the rental price of capital is $r = 6 / =$, the firm is ready to allocate 600/= for input purchasing.
- (a) Find the level of labor and capital at producer equilibrium level.
(05 Marks)
- (b) Suppose the firm cut down its allocation to 500/=, what is the new capital and labor levels?
(02 Marks)
- (c) Suppose that the wage rate increases by 100% what would the firm's profit be?
(04 Marks)
- (ii) Consider the following short run production function
 $Y = X + 4X^2 - 0.2X^3$
- (a) Find MPx and APx function
(04 Marks)
- (b) Calculate the elasticity of production, where $X = 5, 10$ and 15 , and interpret your answers
(05 Marks)
(Total Marks 20)

3.

(i) How the price of a firm is determined by the industry in the perfect competition market?

(05 Marks)

(ii) How the **Lerner Index** is use full to understand the degree of monopoly power of a firm.

(05 Marks)

(iii) Consider the following demand and costs functions of a firm under monopoly market

$$Q = 21 - 0.1P$$

$$TC = 500 + 10Q$$

(a) Find the equilibrium price and quantity

(b) What is the profit for per unit of output?

(c) Calculate total profit level of the firm.

(05 Marks)

(iv) What is the significance of product differentiation in a market characterized by monopolistic competition?

(05 Marks)

(Total Marks 20)

4.

A firm making dinning tables has the following costs and revenue information for one week. This firm sells 50 tables at 1100/=.Its variable and fixed manufacturing costs are 20000/= and 5000/= respectively .Variable and fixed selling and administrative expenses are 10000/= and 5000/= respectively.

(a) Find the firm's breakeven quantity and interpret your answer

(07 Marks)

(b) Suppose that the firm targets its profit to be 10000/= ,how many tables should the firm produce?

(03 Marks)

(c) Find the firm's new breakeven output if it builds a new plant that will raise fixed manufacturing costs and fixed selling and administrative expenses by 100% and 75% respectively. But variable cost decreases to 300/= per unit, where others remain same.

(07 Marks)

(d) Even now suppose that the firm wishes to maintain the same profit 10000/=, what would the firm's output be?

(03 Marks)

(Total Marks 20)

5. A biscuit company makes two variety of biscuits B1 and B2. The profit margin on B1 is 30 ; the profit margin on B2 is 20. B1 takes 6 hours for processing , 4 hours for assembling , and 5 hours of packaging. B2 takes 3 hours for processing , 6 hours for assembling and 5 hours for packaging. If 54 hours are available for processing , 48 hours for assembling and 50 hours for packaging .Use a graphic approach in Linear Programming and answer the questions.

(a) Obtain the optimum level of out put at which the firm can maximize its profit and interpret your answer

(12 Marks)

(b) Obtain the profit curve and interpret it.

(04 Marks)

(c) Interpret the shadow prices and slack variables

(04 Marks)

(Total Marks 20)
