



MACHAKOS UNIVERSITY

University Examinations for 2016/2017 Academic Year

SCHOOL OF BUSINESS AND ECONOMICS

DEPARTMENT OF BUSINESS ENTREPRENEURSHIP AND MANAGEMENT

SCIENCES

EXAMINATION FOR DOCTOR OF PHILOSOPHY IN BUSINESS

SUPPLEMENTARY EXAMINATION

BBA 920: ECONOMICS ANALYSIS FOR BUSINESS DECISIONS

DATE: 6TH DECEMBER 2016

TIME: 10:00AM– 1:00 PM

INSTRUCTIONS

ANSWER ALL QUESTIONS.

QUESTION ONE (40 MARKS)

- (a) Distinguish between the following concepts;
- | | | |
|-------|---|-----------|
| (i) | a demand function and a demand curve | (2 marks) |
| (ii) | a shift in demand and movement along the demand curve | (2 marks) |
| (iii) | Production Elasticity and Demand Elasticity | (2 marks) |
| (iv) | Marginal cost and Marginal factor cost | (2 marks) |
| (v) | Marginal revenue and Marginal revenue product | (2 marks) |
- (b) Why should a manager be keen to understand the nature of demand facing his/her product in the market? (5 marks)
- (c) Explain the role of elasticity in influencing Management decision to adjust or not adjust the price of a good or service. (5 marks)
- (d) An Ice Cream manufacturing firm in Machakos town is in the process of expanding to meet market demand for Ice Cream. Its Branch Manager has insisted on optimal labour input usage. The following table illustrates a series of labour input used and the resulting output from the firm's operations.

Labour units (L)	Total Output (Q)
0	0
1	10000
2	28000
3	40000
4	50000
5	58000
6	68000
7	76000
8	79500
9	84500
10	81800

- (i) Distinguish between short run and long run concepts. In your view, is the Ice Cream manufacturing firm in its short run or long run? Explain your answer. (5 marks)
- (ii) Assuming the price per unit of Ice Cream is Kshs. 4 and the marginal cost of labour is Kshs. 20,000, determine the optimal amount of labour that should be employed by the firm. Convince the firm management why it should not employ less or more than the optimal level. (15 marks)

QUESTION TWO (20 MARKS)

- (a) The total cost of a firm that produces its product on two assembly lines is give as $TC = 3x^2 + 6y^2 - xy$. The firm seeks to determine the least cost combination of output on assembly lines x and y subject to the side condition that output equals to 20.
- (i) Algebraically, state the problem facing the firm (2 marks)
- (ii) Solve for optimal values of x , y and the multiplier (λ) using crammer's rule (8 marks)
- (b) (i) Describe the distinguishing characteristics of perfect competition and monopoly Market structures (5 marks)
- (iii) With clear diagrams, explain the short run and long run equilibrium for a firm in perfect competition (5 marks)

QUESTION THREE (20 MARKS)

- (a) A project costs Kshs 250,000 now and is expected to generate at the year-end cash inflows of Kshs 90,000, 80,000, 70,000, 60,000 and 50,000 in years one (1) to five (5). The opportunity cost of capital is 10%. Evaluate the feasibility of the project using NPV approach. (5 marks)
- (b) Briefly explain how the following influence the structure of the firm:
- (i) Product differentiation (5 marks)
- (ii) Entry conditions (5 marks)

- (c) “Globalization is a policy prescription aimed at remedying problems facing developing economies”. Fully discuss this statement. (5 marks)

QUESTION FOUR (20 MARKS)

- (a) Makuti Carpets, a carpet manufacturing and exporting firm, has to supply an order for 2000 pieces of woolen carpets of two varieties X and Y to Seku guest house for its conference rooms. The joint cost function for the two varieties of the carpets is given as:

$$TC = 4X^2 + 9Y^2 - XY$$

The quantity of X and Y are not specified and so the firm is forced to supply any combination. The firm wishes to minimize the cost of producing the carpets but meet the demand by Seku guest house.

- (i) Determine how many of each type of carpet the firm will produce to minimize costs. (4 marks)
- (ii) What will be the minimum cost of production? (2 marks)
- (b) A firm's demand and cost function is given as:
- $Q_d = 70 - 0.5P$ (Demand)
- $TC = 10 + 5Q^2$ (Total cost)
- Where Q is output produced and sold and P is the market price. Determine level of output that;
- (i) Maximizes Total Revenue (3 marks)
- (ii) Minimizes Total cost (3 marks)
- (iii) Maximizes Profits (3 marks)
- (c) Discuss the importance of Total revenue in decision making (5 marks)