



**MACHAKOS UNIVERSITY**  
**University Examinations for 2019/2020 Academic Year**

**SCHOOL OF BUSINESS AND ECONOMICS**  
**DEPARTMENT OF BUSINESS ADMINISTRATION**  
**..... YEAR SECOND SEMESTER EXAMINATION FOR**  
**MASTER OF BUSINESS ADMINISTRATION**  
**BBA 821: MANAGERIAL ECONOMICS**

**DATE:**

**TIME:**

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**INSTRUCTIONS:**

**ANSWER QUESTION ONE (1) AND ANY OTHER THREE QUESTIONS**

**QUESTION ONE (COMPULSORY) (24 MARKS)**

a) Read the following case and answer the questions that follow:

**Product Pricing**

Of the decisions made by a manager, none is more critical to the success of the firm than setting the right price of output. The firm's pricing decisions determines its long term success or failure. This is because errors in pricing would lead to losses and hence firm closure. On the other hand, correct pricing would ensure profitability and hence firm sustainability and continuity. The firm management should thus ensure that correct pricing decisions are made.

From economic theory, profit maximizing price and output require that  $MR=MC$ . This condition applies to all firms whether perfect competition or monopoly. KAS and QAS are two firms dealing with the production and selling of products. KAS is a monopoly firm in the production of good x which it sells to two markets (1 & 2). The firm understands that more profit can be made by price discriminating in the two markets. The firm has constant marginal cost of Kshs. 2. The demand and marginal revenue for the two markets are as shown in the following table:

Market 1	Market 2
$P_1=14-2q_1$	$P_2=10-q_2$
$MR_1=14-4q_1$	$MR_2=10-2q_2$

QAS is a firm that produces two products x and y. This implies that the total revenue for QAS is a function of the quantities of x and y sold. The marginal cost facing the firm is Kshs.20.

- i. Carefully distinguish between perfect competition and monopoly market structures. (2 marks)
  - ii. What is the basis of profit maximization at the point where  $MR=MC$ ? (2 marks)
  - iii. Explain the process of price fixation under the cost plus pricing strategy (4 marks)
  - iv. Determine the level of output to be sold in each of the two markets (4 marks)
- b) With reference to shareholder wealth maximization model, discuss the managerial actions that would help improve the profit levels of a firm. (4 marks)
- c) “Ability to make a good decision is the key to successful managerial performance”. By giving examples, explain the validity of this statement. (4 marks)
- d) What is price discrimination and why do firms opt for it? (4 marks)

### QUESTION TWO (12 MARKS)

- a) Distinguish between
- i. a demand function and a demand curve (1 mark)
  - ii. a shift in demand and movement along the demand curve (1 mark)
  - iii. Production Elasticity and Demand Elasticity (1 mark)
  - iv. Marginal cost and Marginal factor cost (1 mark)
  - v. Marginal revenue and Marginal revenue product (1 mark)
- b) Why should a manager be keen to understand the nature of demand facing his/her product in the market? (4 marks)
- c) Briefly, explain the decision-making process by managers. (4 marks)

### QUESTION THREE (12 MARKS)

Read the following case and answer the questions that follow.

WAWA Company deals with the production of timber and given the weight of the raw materials, the Company is located in the countryside in close proximity to raw material sources. The Company management is fully aware that their business is labour intensive but is not sure of the optimal level of labour employment. Of late there has been intense debate among the Board of Directors with some accusing the CEO of over employment thereby eroding company profits while others have defended the CEO on grounds that the business is labour intensive and hence continued expansion must be accompanied with expanded labour employment.

A proposal by the financial director that a consulting firm be engaged to help establish the optimal level of labour employment was opposed by most directors on the grounds that it will be a costly venture. In the end, the directors agreed that the CEO should gather data on labour employment and the corresponding production and then engage the services of a finalist business economics student to determine the optimal level of labour employment for the company. Further, it was agreed that the student should not be paid an amount exceeding Kshs 50,000 for the services.

The CEO has gathered the following data on labour employment and production:

Labour Employment (L)	Total Output (Q)
0	0
10	600
20	1600
30	2900
40	4400
50	5500
60	6000
70	6200
80	6200
90	6100
100	5900

- a) In your view, is WAWA Company in its short run or long run? Explain your answer. (2 marks)
- b) As a Management student, use the data to advise the Board of WAWA Company on the optimal level of labour employment assuming that the selling price per unit output is Kshs 100 and that each unit of labour is paid Kshs 5000. Convince the board why the company should not employ less or more than the optimal level. (10 marks)

#### QUESTION FOUR (12 MARKS)

Assuming that the firm's cost function and demand are respectively given as  $TC = 20 + 5Q + Q^2$ , and  $Q = 25 - P$ .

- a) Determine the output level where total profit is maximized. (4 marks)
- b) Calculate total profit and selling price at the profit maximizing output. (4 marks)
- c) If fixed costs increase from Kshs 20 to Kshs 25, what will be the effect of such an increase on the profit-maximizing output level and total profits? (4 marks)

#### QUESTION FIVE (12 MARKS)

- a) Mumbuni Ltd a carpet manufacturing and exporting firm, has to supply an order for 5000 pieces of woolen carpets of two varieties K and L to Letechnish Hotel for its conference rooms. The joint cost function for the two varieties of the carpets is given as:

$$C = 100K^2 + 150L^2$$

The quantity of K and L 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 Letechnish hotel. Determine how many of each type of carpet the firm will produce to minimize costs. What will be the minimum cost of production ?

(8 marks)

- b) Discuss the limitations of cost plus pricing strategy. (4 marks)