



MAASAI MARA UNIVERSITY

**REGULAR UNIVERSITY EXAMINATIONS
2022/2023 ACADEMIC YEAR
SECOND YEAR FIRST SEMESTER**

**SCHOOL OF BUSINESS & ECONOMICS
MASTER OF BUSINESS ADMINISTRATION**

COURSE CODE: MBA 8211

COURSE TITLE: MANAGERIAL ECONOMICS

DATE: 24/4/2023

TIME: 0830-1130 HRS

INSTRUCTIONS TO CANDIDATES

1. Answer ANY FOUR Question.

QUESTION ONE

- (a) What is meant by demand forecasting? Why is it important for the managers of business firm? **3 marks**
- (b) The demand for petrol rises from 500 to 600 Barrels when the price of a particular scooter is reduced from 25000 to 22000. Find out the cross elasticity of demand for the two. What is the nature of their relationship? **3 marks**
- (c) In the table below, estimate the sales for 2012, 2015 and fit a linear regression equation and draw a trend line. **9 marks**

Year	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
Sales	22734	24731	31489	44685	55319	91021	146234	107887	127483	97275

QUESTION TWO

- (a) Discuss the areas of decision making where managerial economics prescribes specific solutions to business problems. **9 marks**

A company manufactures a single product which has the following cost structure based on a production budget of 10,000 units.

Materials – 4 kg at Shs.3/kg Shs.12

Direct labor – 5 hours at Shs.7/hour Shs.35

Variable production overheads are recovered at the rate of Rs.8 per direct labor hour.

Other costs incurred by the company are:

Factory fixed overheads Shs120, 000

Selling and distribution overheads Shs160, 000

Fixed administration overheads Shs80, 000

The selling and distribution overheads include a variable element due to a distribution cost of Shs2 per unit.

The fixed selling price of the unit is Shs129.

Required:

- (b) Calculate how many units have to be sold for the company to break-even. **3 marks**

- (c) Calculate the sales revenue which would give a net profit of Shs40,000. **3 marks**

QUESTION THREE

- (a) A firm has the following revenue and cost functions: $TR = 45Q - 0.5Q^2$ and $TC = Q^3 - 8Q^2 + 57Q + 2$. Determine Q that maximizes profit (π). **4 marks**
- (b) Suppose the profit function and the cost outlay is given as follows: $\pi = 80X - 2X^2 - XY - 3Y^2 + 100Y$ and $X + Y = 12$ respectively. Using Lagrangian method, determine optimal X and Y , and interpret the Lagrangian multiplier. **5 marks**
- (c) Discuss the managerial uses of production function. **6 marks**

QUESTION FOUR

Product 1 requires 20 units of raw material and 5 hours of machine-processing time, whereas Product 2 requires 40 units of raw material and 2 hours of machine-processing time. During the period, 400 units of raw material and 40 hours of machine-processing time are available. The capacities of the two assembly divisions during the period are 6 and 9 units, respectively. The operating profit contribution per unit or, more accurately, the per-unit contribution to profit and overhead (fixed costs) is Shs100 for each unit of Product 1 and Shs60 for each unit of Product 2. The contribution per unit represents the difference between the selling price per unit and the variable cost per unit. Required:

- (a) Formulate the problem and solve using graphical method. **8 marks**
- (b) Economic assumptions of the LP model. **3 marks**
- (c) What is a slack variable? Determine and state the managerial implications. **4 marks**

QUESTION FIVE

- (a) Discuss the managerial importance of understanding total costs, average costs, and marginal costs. **9 marks**
- (b) Monopolists do not aim at profit maximization but rather setting maximum price. Discuss. **6 marks**

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