



MAASAI MARA UNIVERSITY

**REGULAR UNIVERSITY EXAMINATIONS
2023/2024 ACADEMIC YEAR
FIRST YEAR FIRST SEMESTER**

**SCHOOL OF BUSINESS AND ECONOMICS
BACHELOR OF SCIENCE-ECONOMICS,**

COURSE CODE: ECO 1103-1

**COURSE TITLE: INTRODUCTION TO
MICROECONOMICS**

DATE: 31/1/2024

TIME: 0830-1030 HRS

INSTRUCTIONS TO CANDIDATES

Answer Question **ONE** and any other **TWO** questions

*This paper consists of **four** printed pages. Please turn over.*

QUESTION ONE

- a) Clearly distinguish the following pairs of economic concepts
- Positive analysis and normative analysis **(2 marks)**
 - Income and substitution effect of price change **(2 marks)**
 - Movement along supply curve and shift of demand curve **(2 marks)**
- b) Suppose the price of commodity X is sh. 20 and the price of Y is sh. 10 and suppose the consumer income is sh. 10,000. Plot a budget line for the consumer **(4 marks)**
- c) Using the indifference curve approach, explain the consumer equilibrium and show how the demand curve for a normal good is derived. **(5 marks)**
- d) You are given the following economic functions

$$Q_1 = 36 - \frac{1}{3}p$$

$$Q_2 = -9 + \frac{1}{2}p$$

- Identify with reasons the demand and supply functions **(4 marks)**
- Explain the negative intercept of the second function Q_2 **(1mark)**

QUESTION TWO

- a) Determine the equilibrium quantities of commodities x and z for a consumer whose total utility (U) and other relevant variables are given below;

$$U = 20x - 4z^2 + 40z - x^2$$

$$\text{Income level } Y = \text{Ksh.48}$$

$$\text{Price of } x(p_x) = \text{ksh.2}$$

$$\text{Price of } z(p_z) = \text{ksh.4}$$

Show all your workings **(8 marks)**

- a) b) Using a well labeled diagram describe the relationship between average total cost (ATC), average variable cost (AVC) and marginal cost (MC)

(7 marks)

QUESTION THREE

- a) Discuss the usefulness of the concept of elasticity **(6 marks)**

- b) Given

Demand function: $P + Q^2 + 3Q = 0$

Supply function: $P - 3Q^2 + 10Q = 2$

Determine the equilibrium market price and quantity **(5 marks)**

- c) With the aid of a diagram, explain the concept of the firms least cost factor combination **(4 marks)**

QUESTION FOUR

Consider the production data below where labour is the variable factor of production.

Labour	Total Physical Product
1	15
2	35
3	60
4	90
5	120
6	144
7	158

8	160
9	160
10	158

- a) Find the average physical product and marginal product at each level of labour. **(5 marks)**
- b) Demarcate and explain the three stages of production **(5 marks)**
- c) Draw a graphical presentation of short run equilibrium under the monopoly market structure and show how the firm makes supernormal profits **(5 marks)**

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