



MAASAI MARA UNIVERSITY

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

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

COURSE CODE: ECO 1103

**COURSE TITLE: INTRODUCTION TO
MICROECONOMICS**

DATE: 7TH DECEMBER, 2022

TIME: 0830-1030

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

i. Movement along and shift of demand curve **(2 marks)**

ii. Income and substitution effect of price change **(2 marks)**

b) Given cost functions of the form;

$$TC = 50 + Q + Q^3;$$

$$VC = Q + Q^3 \text{ Determine;}$$

i. Fixed cost

ii. Marginal cost, when $Q = 2$

(3 Marks)

c) 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

(3 marks)

d) Using the indifference curve approach, explain the consumer equilibrium and show how the demand curve for a normal good is derived. **(5 marks)**

e) Draw a graphical presentation of short run equilibrium under the monopoly market structure and show how the firm makes supernormal profits **(4 marks)**

QUESTION TWO

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

b) If a 20% fall in price brings about 10% increment in quantity demanded,;

i. Calculate price elasticity of demand

ii. Interpret the nature of price elasticity in (i) above

(3 marks)

c) State the concept of equi-marginal utility.

(2 marks)

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

QUESTION THREE

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.

(6 marks)

b) Demarcate and explain the three stages of production **(6 marks)**

c) 'Economics is a social science,' Discuss. **(3 marks)**

QUESTION FOUR

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)**

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