



JARAMOGI OGINGA ODINGA UNIVERSITY OF SCIENCE AND TECHNOLOGY
SCHOOL OF BUSINESS & ECONOMICS

**UNIVERSITY EXAMINATION FOR BACHELOR OF LOGISTICS AND SUPPLY
CHAIN MANAGEMENT (BLSCM) AND BACHELOR OF BUSINESS
ADMINISTRATION (With IT) SECOND YEAR SEMESTER ONE**

MAIN CAMPUS

COURSE CODE: AEC 201 /BEN 3221

COURSE TITLE: INTRODUCTION TO MICRO ECONOMICS

EXAM VENUE:

STREAM:

DATE:

EXAM SESSION:

TIME: 2 HOURS

INSTRUCTIONS:

- 1. Answer Question ONE (COMPULSORY) and ANY other 2 questions**
- 2. Candidates are advised not to write on the question paper.**
- 3. Candidates must hand in their answer booklets to the invigilator while in the examination room.**

QUESTION ONE (Compulsory)

- i. Explain the concept of diminishing marginal utility (3 marks)
 - ii. Compare and contrast the cardinal and ordinal utility theories (5 marks)
 - iii. Suppose a utility function is given as $U = f(Q_1, Q_2) = Q_1^{0.4}Q_2^{0.6}$, determine the marginal rate of commodity substitution if the utility curve passes through bundles 30 and 60 for Q_1 and Q_2 respectively. (5 marks)
- b) Distinguish between the following terms
- i. Isocost and isoquant (3 marks)
 - ii. Engel's curve and the price consumption curve (3 marks)
- c) Demand function for a firm is given as $P = 30 - Q$, if the firm's cost function is $C = 5 + 10Q$, determine the firm's maximum profit (5 marks)
- d) Given a cost function specified as $= 100 + 20Q + \frac{10}{Q^2}$, determine the firm's ATC and MC functions. (6 marks)

QUESTION TWO

- i. Explain the meaning of Pareto optimality situation. (2 marks)
- ii. Describe an edge worth box diagram as used in welfare analysis. (7 marks)
- iii. With the aid of an edge worth box diagram, explain the Pareto optimality condition in production and consumption. (8 marks)
- iv. What are the factors that affect the cost of production of a firm? (3 marks)

QUESTION THREE

- a) In a perfectly competitive market, a firm's average revenue and cost function are given as follows;

$$AR = \alpha Q - \beta$$

$$AC = \frac{\alpha}{Q} - \beta ; \text{ Where } \alpha \text{ and } \beta \text{ are constants and } Q \text{ is the output.}$$

On the basis of the function given above, determine;

- i. The total revenue function; (2 marks)
 - ii. The total cost function; (2 marks)
 - iii. The total break even output level (4 marks)
- b) With the help of a well labeled diagram, explain how long run equilibrium of a perfectly competitive model is achieved in an industry. (7 marks)
- c) Outline the features of an oligopoly market and how pricing for goods and services are done to maximize profits. (5 marks)

QUESTION FOUR

- i. Using a well labeled diagram, discuss Paul Samuelson's revealed preference theory (10 marks)
- ii. Geometrically derive the average and the marginal product curves. (5 marks)
- iii. With the aid of a diagram, explain why indifference curves do not intersect. (5 marks)

QUESTION FIVE

- i. Explain the Pareto efficiency conditions and illustrate with relevant example. (10 marks)
- ii. Assume two goods X and Y are normal and also the consumer's income (I). Assume further that there is a fall in the price of good X while the price of Good Y and the

consumer's Income (I) are constant. Explain the income and substitution effect of the price fall and illustrate using a diagram. (10 marks)