



MASENO UNIVERSITY
UNIVERSITY EXAMINATIONS 2016/2017

**SECOND YEAR FIRST SEMESTER EXAMINATIONS FOR THE
DEGREE OF BACHELOR OF BUSINESS ADMINISTRATION WITH
INFORMATION TECHNOLOGY**

HOMA-BAY CAMPUS - WEEKEND

AEC 201: INTERMEDIATE MICRO-ECONOMICS

Date: 18th June, 2017

Time: 2.00 - 5.00 pm

INSTRUCTIONS:

- Answer question ONE and any other THREE questions.
- Question ONE carries 25 marks and the rest 15 marks each.

QUESTION ONE

- a. (i). Explain the concept of diminishing marginal utility (DMU). (3marks)
(ii). Compare and contrast the cardinal and ordinal utility theories. (4marks)
(iii). Suppose a utility function is given as $U = f(Q_1, Q_2) = 10Q_1^{0.8}Q_2^{0.2}$, determine the marginal rate of commodity substitution if the utility curve passes through bundles (30, 60). (5marks)
- b). Distinguish between the following terms;
(i). Isocost and Isoquant. (2marks)
(ii). Engel curve and income consumption curve. (2marks)
- (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. (5marks)
- d). Given a cost function specified as $C = 100 + 20Q + \frac{10}{Q^2}$, determine the firm's ATC and MC functions. (4marks)

QUESTION TWO

- a) Write short notes on Market Equilibrium. (3marks)
- b) Using the following demand and supply functions of a commodity x, compute the equilibrium price and quantity.
 $Q_d = 100 - 2P$
 $Q_s = 40 + 4P$ (4 marks)
- c) Ceteris paribus, use diagrams to illustrate and explain the effects on the values in (b) from:
- i) a fall in price of x's substitute. (4 marks)
- ii) a simultaneous increase in input prices and a rise in the consumer's income. (4 marks)

QUESTION THREE

- a). Explain the meaning of a pareto optimal situation. (2marks)
- b). Describe an edge worth box diagram as used in welfare analysis. (3marks)
- b). With the help of an edge worth box diagram, explain the Pareto optimal conditions in production and consumption. (10marks)

QUESTION FOUR

- (a) Describe an indifference curve and briefly explain the nature of indifference curves for perfect substitutes and complementary goods. (8 marks)
- (b) Using a diagram illustrate and explain the income and substitution effects of a price fall for a normal good. (7 marks)

QUESTION FIVE

- (a) In a perfectly competitive market, a firm's average revenue and cost functions are given as follows: $AR = \alpha Q - \beta$; $AC = \frac{\alpha}{Q} - \beta$, where α, β are constants and Q is the output, AR is the average revenue and AC is the average cost. On the basis of the functions given above, determine:
- (i) Total revenue function. (2 marks)
 - (ii) Total cost function. (2 marks)
 - (iii) Total break-even output level. (4 marks)
- (b) With the help of a well-illustrated diagram, explain how the long-run equilibrium of a perfectly competitive model is achieved in an industry. (7 marks)

QUESTION SIX

- (a) (i) What is meant by the term "production function"? (2 marks)
- (ii). Giving appropriate examples, explain the term "fixed factors of production" (3marks)
- (b) Explain and illustrate the resultant hypothetical total and marginal product curves in an economy with only two factors of production, one of which is fixed. (10 marks)