EMBU UNIVERSITY COLLEGE

(A Constituent College of the University of Nairobi)

2015/2016 ACADEMIC YEAR

FIRST SEMESTER EXAMINATIONS

FIRST YEAR EXAMINATION FOR BACHELOR OF ECONOMICS AND BACHELOR OF COMMERCE

XET 101 / DFI 103: INTRODUCTION TO MICROECONOMICS

DATE: 7th DECEMBER, 2015 **TIME: 11:00-13:00**

INSTRUCTIONS:

Answer Question ONE and ANY Other TWO Questions.

QUESTION ONE

a) Kenya Garment manufacturers Ltd. has derived the following functions from its books:

$Q = 6P - 10$ and $Q = 150 - 4P$ where Q is output and P is price of garments.

Required:

i) Indicate which function could represent demand and which could represent supply, giving reasons. (3 marks)

ii) Compute the equilibrium price and quantity and indicate the desirability of equilibrium values to both potential producers and consumers. (3 marks)

iii) Compute the price elasticity of supply when the market is in equilibrium and interpret your result. (3 marks)

iv) Explain any three factors that might lead to the type of elasticity calculated in (iii) above. (3 marks)

v) Suppose the supply function changes to Q = 6P with no change in demand. Explain the type of change that has occurred and calculate the new equilibrium values of price and quantity. (3 marks)

vi) Explain any three factors that could cause the type of change indicated in (v) above. (3 marks)

b) Distinguish clearly between the following terms:

i) Change in quantity demanded and change in demand. (3 marks)

ii) Consumer good and producer good. (3 marks)

iii) Consumer surplus and producer surplus. (3 marks)

iv) Market economy and command economy. (3 marks)

QUESTION TWO

a) What are indifference curves and what are their main characteristics? (8 marks)

b) Using indifference curve analysis explain the consumer equilibrium point. (6 marks)

c) With the aid of diagrams explain indifference curves if:

i) Good A and good B are perfect substitutes; (3 marks)

ii) Good A and good B are perfect complements. (3 marks)

QUESTION THREE

a) A farmer producing maize on a two-acre farm faces the following production function:

Labour	0	1	2	3	4	5	6	7
Quantity (bags)	0	6	14	24	28	30	30	28

Required:

i) Compute the marginal product (MP) function and explain its behavior, giving reasons. (5 marks)

ii) Compute the average product function (AP) and interpret the values obtained. (3 marks)

iii) Explain the relationship between AP and MP functions. (2 marks)

b) With the aid of diagrams distinguish between fixed and variable costs of production. (5 marks)

c) Define product differentiation and explain its benefits and costs to consumers. (5 marks)

QUESTION FOUR

a) Explain the conditions necessary for a perfectly competitive market to exist and, with aid of diagrams, explain how the producer determines his optimum output and price. (8 marks)

b) A short run total cost function for a firm operating in conditions of perfect competition is given by $TC = Q^3 - 20Q^2 + 150Q + 360$ where TC is total cost and Q is output. Suppose the profit maximizing output (Q) is 12 units.

Required:

i) Calculate the average fixed cost (AFC), average variable cost (AVC), average cost (AC) and marginal cost (MC) when Q = 12 units. (4 marks)

ii) Find the profit maximizing price. (2 marks)

iii) Determine the maximum profit or loss earned by the firm and comment on your result. (3 marks)

c) When the price of tyres rose from \$100 to \$150 per unit, the demand for tubes fell from 300 to 200 units per day. Calculate the relevant elasticity and comment on your results. (3 marks)

QUESTION FIVE

a) Define monopoly and explain what gives rise to and sustains monopoly. (6 marks)

b) A monopolist has an average revenue (demand) curve given by $P = 100 - 4Q$ where P is price and Q is output. His total cost function is $TC = 80 + 44Q$ where TC is total cost and Q is output.

Required:

i) Find the profit maximizing price and quantity. (3 marks)

ii) Compute the maximum profit or loss earned and comment on your result. (5 marks)

c) Explain why governments tend to control monopolies and, with the aid of a diagram, explain how such control may be exercised and its effects. (6 marks)

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