



MUEO

MOI UNIVERSITY

OFFICE OF THE DEPUTY VICE CHANCELLOR (A,R&E)

UNIVERSITY EXAMINATIONS 2017/2018 ACADEMIC YEAR SECOND YEAR FIRST SEMESTER EXAMINATION

FOR THE DEGREE OF BACHELOR OF ARTS IN ECONOMICS

COURSE CODE: ECO 210

COURSE TITLE: INTERMEDIATE MICRO ECONOMICS I

DATE: 3RD DECEMBER, 2018 **TIME:** 2.00 – 5.00 PM

INSTRUCTION TO CANDIDATES

SEE INSIDE

Instruction to candidates:**Answer Question ONE and ANY other THREE questions****QUESTION ONE**

- (a) A consumer's utility function is of the form:

$$U = 50q_1q_2$$

The consumer's money income is M and the respective prices of q_1 and q_2 are p_1 and p_2

- (i) Construct the marshallian and compensated demand functions for q_1 and q_2 (16 marks)
- (ii) Suppose the consumer's money income is Ksh 50000 and that the price of q_1 is Ksh 25 while that of q_2 is Ksh 50. Find the consumer's optimal consumption bundle. (4 marks)
- (b) Examine the key characteristics of economic models. What are the major limitations of economic models (5 marks)

QUESTION TWO

- (a) Define 'oligopoly' and with the aid of appropriate diagram, explain why on theoretical considerations oligopolistic prices should be more stable than prices of other product market structures (7 marks)
- (b) Distinguish between substitution effect and income effect of a price change. Decompose the effect of a price change into substitution and income effects using
- (i) The Slutsky method
- (ii) The Hicksian method (8 marks)

QUESTION THREE

- (a) Explain the concept of consumer surplus and show how it is used to measure consumer's welfare changes (5 marks)
- (b) Using a mathematical approach, derive the equilibrium position of a price discriminating monopolist, show that the monopolist will charge a higher price in the market whose demand is less elastic (10 marks)

QUESTION FOUR

- (a) Using graphical approach or otherwise, explain the stages of production of a firm and distinguish between the average product and marginal product of a production function (5 marks)
- (b) Discuss the purpose of the marginal rate of substitution in production theory. The production function of a firm is represented by a combination of labor, L and capital K to produce a given level of output Q . If the firm has a given cost outlay, C and the wage rate is W while the rental value of capital is r , derive the firm's output maximizing point (10 marks)

QUESTION FIVE

An output maximizing producer is faced with the following Cobb-Douglas production function

$$Z = 4L^{2/3}K^{1/6}$$

Determine

- i) Marginal productivity of Labour and Capital (6 Marks)
- ii) The factor intensity (2 Marks)
- iii) Suppose the producer increases production by three times determine the returns to scale and interpret your answer (7 Marks)

QUESTION SIX

- A) Distinguish between Income effect and Substitution effect of a price change (5 Marks)
- B) Discuss the three elasticities of demand as used in Micro-economic analysis (10 Marks)

