MUEO

MOI UNIVERSITY

OFFICE OF THE DVC ACADEMIC AFFAIRS, RESEARCH AND EXTENSION

UNIVERSITY EXAMINATIONS

2014/2015 ACADEMIC YEAR

SECOND YEAR END OF SEMESTER EXAMINATIONS

FOR THE DEGREE OF BACHELOR OF BUSINESS MANAGEMENT

EXAM CODE: ECO 210/ECO 310
EXAM TITLE: INTERMEDIATE MICROECONOMICS

DATE: 10TH AUGUST, 2015 TIME: 2.00 P.M. –5.00 P.M.

INSTRUCTION TO CANDIDATES

- SEE INSIDE

THIS PAPER CONSISTS OF (2) PRINTED PAGE

PLEASE TURN OVER

ECO 310/ECO 210: INTERMEDIATE MICROECONOMICS

Instructions to candidates

Answer any Four Questions

All questions carry equal marks

QUESTION ONE

a) Explain and critique the assumptions of the ordinal and cardinal utility theories (15mks)

b) By giving examples, explain the economies of scale that are enjoyed by large scale producers (10mks)

QUESTION TWO

Suppose a production function of a firm is;

$Q = 4L^{1/8}K^{6/9}$

a) What type of production function is this? (2mks)

b) Determine;

i) The return to scale for this function

ii) MPL and MPK (8 marks each)

c) Given a production function of the nature;

$Q = f(L, K)$

Where;

Q = output

L = Labour

K = Capital

Demonstrate that the slope of an isoquant will be equal to the ratio of marginal products of the inputs. (7mks)

QUESTION THREE

a) A consumer's utility function is of the form: $U = 50q1q2$
The consumer's money income is **M** and the respective prices of q_1 and q_2 are p_1 and p_2
Required

i. Construct the Uncompensated and Compensated demand functions for q_1 and q_2 (14 marks)

ii. Suppose the consumer's money income is Ksh. 50,000 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. (5 marks)

b) Suppose you are given the Cobb-Douglas production function $Q = AK\alpha L\beta$. Show the condition under which the production function exhibits Increasing, Constant and Diminishing returns to scale (6 marks)

QUESTION FOUR

a) A consumer has the following utility function;

$u(x,y) = 2x^{1/2}y^{1/2}$

Suppose he allocates shs 24 for purchasing the two goods x and y at shs 2 and shs 1 respectively.

i) Setup a constrained utility maximization problem from the information given

ii) Find the optimal values of x and y that will maximize utility

iii) What is the maximum utility (5mks each)

b) Explain the concepts of consumer surplus (10mks)

QUESTION FIVE

a) Explain and show graphically how firms in Perfect Competitive and in Monopolistic Competitive markets attain long – run equilibrium. (10 marks)

b) Compare and contrast the two market structures in (a) above. (10 markets)

c) Graphically derive the demand curve of the consumer based on the indifference curve analysis (5 Marks)

QUESTION SIX

a) Given the following total cost function; $TC = 1000 + 200Q - 90Q^2 + 0.25Q^3$

i. Find the equations for TVC, FC, AVC, AC and MC (10 Marks)

ii. Find the lowest price for output that would allow the firm to break even. i.e. MC=MR (TR=TC) (3 Marks)

b) Suppose total demand of a discriminating monopoly is given by $Q = 50 - 5P$ and the $TC = 50 + 40Q$. The submarket demand function are $Q_1 = 32 - 0.4P_1$ and $Q_2 = 18 - 0.1P_2$. Determine the discriminating Price, TR and MR in the two submarkets as well as its total profits ($\prod$) (12 marks)

END