MACHAKOS UNIVERSITY

University Examinations for 2020/2021 Academic Year

SCHOOL OF BUSINESS AND ECONOMICS

DEPARTMENT OF ECONOMICS

SECOND YEAR SPECIAL/SUPPLEMENTARY EXAMINATION FOR

BACHELOR OF ECONOMICS AND STATISTICS

BACHELOR OF ECONOMICS AND FINANCE

BACHELOR OF ECONOMICS

BACHELOR OF EDUCATION

EET 200: MICROECONOMICS THEORY II

DATE: 23/3/2021   **TIME: 2.00-4.00 PM**

INSTRUCTIONS

Answer Question **ONE** and any other **TWO** questions

QUESTION ONE COMPULSORY (30 MARKS)

a)   Discuss the assumptions of consumer preference.   (6 marks)

b)   Suppose a utility function is specified as

$U(X_1 X_2) = X_1^2 X_2^2$ and the budget constraint is given as $P_1 X_1 + P_2 X_2 = M$

State the consumer problem and derive the consumer demand function for X_1 and X_2.

                                                           (10 marks)

c)   State and explain whether the following statements are True or False.

     i)   Product equilibrium occurs at point where marginal rate of substitution equals the ratio of factor prices.   (2 marks)

     ii)   Hicks' substitution effect keeps the utility level constant rather than keeping the purchasing power constant.   (2 marks)

     iii)   Indifference curve's slope measures marginal rate of technical substitution.

                                                     (2 marks)

d)   Discuss the features of perfectly competitive markets.   (8 marks)

QUESTION TWO (20 MARKS)

a)   Suppose the cost minimization problem is stated as: Min C= $W_1X_1 + W_2X_2$ s.t Q=X_1X_2.

Using the lagrangian approach, find the conditional factor demands for X_1 andX_2.   (10 marks)

b)   i.   Define total effect.

ii.   Using a well labeled diagram, discuss income effect & substitution effect of a price change of a normal good.   (10 marks)

QUESTION THREE (20 MARKS)

a)   i.   Using a diagram define an isoquant.   (2 marks)

ii.   Discuss the characteristics of isoquants and their implications.   (8 marks)

b)   Define price discrimination. Discuss three conditions necessary for monopolistic price discrimination.   (10 marks)

QUESTION FOUR (20 MARKS)

a)   Discuss the assumptions of ordinal utility theory.   (10 marks)

b)   The profit maximization problem of the firm is given as: Max $Pf(X_1X_2) - W_1X_1 - W_2X_2$.

Suppose that $f(X_1X_2)$ is given as $X_1^aX_2^b$. Find the supply function of the firm.   (10 marks)

QUESTION FIVE (20 MARKS)

a)   A monopolist has the following demand and total cost function $P = 100 - 2Q$ and $C = 50 + 40Q$.

i.   Calculate the profit maximizing output, price and maximum profit.   (10 marks)

ii.   Verify the first and second order conditions for maximum profit.   (4 marks)

b)   Briefly explain the principles guiding consumer behavior theory.   (6 marks)