
CHUKA



UNIVERSITY

SUPPLEMENTARY / SPECIAL EXAMINATIONS

SECOND YEAR EXAMINATION FOR THE AWARD OF BACHELOR OF

ECON 212: INTERMEDIATE MICROECONOMICS

STREAMS:

TIME: 2

HOURS

DAY/DATE: MONDAY 16/11/2020

2.30 P.M - 4.30 P.M.

INSTRUCTIONS:

Answer Question One And Any Other Two Questions

a). Explain the assumptions and weaknesses of Ordinal utility theory (10 Marks)

b). Suppose a firm in a perfectly competitive market has a cost function given as $C = 50Q + .$
Determine the supply function of this firm (4 Marks)

c). The following production function is given;

$$Y = 2$$

Where $Y =$ output

$X =$ input

Letting P be price of the output and W the price of input, derive the corresponding profit function (6 Marks)

d). Distinguish between marginal rate of technical substitution and marginal rate of substitution (4 Marks)

e). Given the following production function;

$$Q =$$

Required;

(i). Explain what is a homogeneous production function (2 Marks)

(ii). Calculate the degree of homogeneity of the above function and comment on the return to scale (4 Marks)

Question Two

a).Using a well labelled diagram, explain the difference between substitution effect and income effect of an increase in a price of a giffen good (8 Marks)

b).A consumer's direct utility function is given by $U = x^{\alpha}y^{\beta}$, where x and y are two goods. Let p_x and p_y be the price of the two goods and M be the consumers income,

(i). Find the corresponding uncompensated demand functions for the consumer (5 Marks)

(ii). Derive the indirect utility function of this consumer (2 Marks)

(iii). Suppose $p_x =$ Ksh. 20 and consumer has an initial income of Ksh. 1000 if p_x falls to Ksh. 15, how much compensation will be required to maintain the consumer's utility? Calculate the substitution and income effect of the price change. (5 Marks)

Question Three

a).Discuss the properties of technologies (10 Marks)

b).Given the firms production function $y = A L^{\alpha} K^{1-\alpha}$. Let w be the price of labour and r the price of capital. Suppose the firm aim at minimizing cost of producing the level of output y . Set the cost minimization problem and calculate the minimum cost of this firm (10 Marks)

Question Four

a).With the help of a well labeled diagram, explain the inefficiency of monopoly (10 Marks)

b). Using an Edgeworth box, analyze the exchange of two goods between two people and thereafter show the Pareto efficiency allocation (10 Marks)

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