MACHAKOS UNIVERSITY

University Examinations for 2021/2022 Academic Year

SCHOOL OF BUSINESS AND ECONOMICS

DEPARTMENT OF ECONOMICS

SECOND YEAR ………… SEMESTER EXAMINATION FOR

BACHELOR OF ECONOMICS & STATISTICS

BACHELOR OF ECONOMICS AND FINANCE

BACHELOR OF COMMERCE

BACHELOR OF EDUCATION

BACHELOR OF ECONOMICS

EET 200: MICROECONOMICS THEORY II

DATE: **TIME:**

INSTRUCTIONS

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

QUESTION ONE (COMPULSORY) (30 MARKS)

a) State whether the following statements are True or False.   (5 marks)

    i) If a monopolistic firm was making subnormal profits in the short run, it would make normal profits in the long run.

    ii) Short run cost curve is derived from expansion path.

    iii) An increase in income would pivot the budget line to left.

    iv) Perfectly competitive market attains equilibrium when MRS is equal to marginal cost.

    v) Feasible set is a set of all combinations of inputs and outputs that comprise a technically feasible way to produce.

b) Using relevant diagram explain how price is determined in a perfectly competition.

                                                                               (6 marks)

c) Distinguish between strong axioms of revealed preferences and weak axioms of revealed preferences.   (6 marks)

d) Using a diagram explain why a rational producer would produce at stage two of production.

                                                                          (5 marks)

e) Consider the consumer's utility function and budget constraint $U(X_1 X_2) = X_1^{0.5} X_2^{0.5}$ and $P_1 X_1 + P_2 X_2 = M$ respectively. Derive the consumer's Marshallian demand functions. (8 marks)

QUESTION TWO (20 MARKS)

a) Consumer preferences are characterized axiomatically. Explain any four axioms of consumer preferences. (8 marks)

b) One method of constrained profit maximization is minimization of cost given the output level. Suppose XYZ firm's production and cost functions are given as, $Q(X_1 X_2) = X_1^3 X_2^3$ and $C = W_1 X_1 + W_2 X_2$ respectively. Derive the conditional factor demands for X_1 and X_2.

(8 marks)

c) Explain any four assumptions of diminishing marginal returns. (4 marks)

QUESTION THREE (20 MARKS)

a) A monopolist has the following demand functions for two segmented markets and cost function.

$$Q_1 = 64 - 0.8P_1 \qquad Q_2 = 36 - 0.2P_2 \qquad C = 100 + 80Q$$

Required;

i) Calculate the maximum output and price of each market and the optimal profit of the monopolist. (9 marks)

ii) Verify whether the output maximizes profit. (3 marks)

b) Explain any four features of isoquants and their implications. (8 marks)

QUESTION FOUR (20 MARKS)

a) The profit maximization problem of the firm is given as: $\max Pf(X_1 X_2) - W_1 X_1 - W_2 X_2$ Suppose that Q= $(fX_1 X_2)$ is given as $X_1^\alpha X_2^\beta$. Derive the output supply function of the firm.
(8 marks)

b) Explain the four building blocks in any model of consumer choice. (8 marks)

c) Distinguish between indifference curve approach and neoclassical theory of utility.

(4 marks)

QUESTION FIVE (20 MARKS)

a) Using a well labeled diagram, discuss income effect & substitution effect of a price decrease of a normal good. (8 marks)

b) What is economics of scale? Using any Cobb Douglas function discuss the rules of returns to scale. (6 marks)

c) Explain any three types of monopolistic price discrimination. (6 marks)