



MACHAKOS UNIVERSITY

University Examinations for 2017/2018

SCHOOL OF BUSINESS AND ECONOMICS

DEPARTMENT OF ECONOMICS

SECOND YEAR FIRST SEMESTER EXAMINATION FOR

BACHELOR OF ECONOMICS AND STATISTICS

BACHELOR OF ECONOMICS AND FINANCE

BACHELOR OF ECONOMICS

BACHELOR OF EDUCATION

BACHELOR OF ARTS

EET 200: MICRO ECONOMIC THEORY II

DATE:14/12/2017

TIME: 2.00-4.00 PM

INSTRUCTIONS:

- a) Answer Question ONE and any other TWO questions.
- b) Begin answering a new question on a separate page on the booklet provided
- c) Credit will be given to the clarity of argument and use of local examples.

QUESTION ONE (COMPULSORY 30 MARKS)

- a) Name & explain three (3) assumptions of consumer preferences (6 marks)
- b) State both the weak and strong axiom of revealed preferences (4 marks)
- c) Suppose a utility function is specified as

$$\mu(X_1X_2) = X_1^\alpha X_2^\beta. \text{ The Consumer problem is stated as } \text{Max } \mu = X_1^\alpha X_2^\beta$$

s.t

$$P_1X_1 + P_2X_2 = M$$

Find the demand function for X_1 and X_2 . (6 marks)

- d) Distinguish clearly between the following terms as used in economics. (6 marks)
- i) Isoquant and Isocost line
 - ii) Cardinal and ordinal approaches
 - iii) Utility and Opportunity cost
- e) Highlight at least Four characteristics of economic models (4 marks)
- f) Using the stages of production in the short run, illustrate and explain why it does not make any economic sense to produce in stage I or III (4 marks)

QUESTION TWO (20 MARKS)

- a) Given the cost minimization problem as:

$$\text{Min } C = w_1x_1 + w_2x_2$$

s.t

$$y = X_1^a X_2^b$$

Using the langragian approach, find the conditional factor demands for X_1 and X_2 . (10 marks)

- b) Name and explain three (3) conditions necessary for price discrimination (6 marks)
- c) Define the technical rate of substitution (2 marks)
- d) Define capital goods & give an example of such kind of a good. (2 marks)

QUESTION THREE (20 MARKS)

- a) The profit maximization problem of the firm is given as:

Max pf $(X_1X_2) - w_1x_1 - w_2x_2$. Suppose that p f (X_1X_2) is given as $X_1^aX_2^b$. Find the supply function of the firm. (8 marks)

- b) Distinguish between isoquants and indifference curves. (4 marks)
- c) Explain two main properties of technology (4 marks)
- d) Distinguish between short run and long run periods in production. (4 marks)

QUESTION FOUR (20 MARKS)

- a) Using a well labelled diagram, show both the income effect & substitution effect of a price change. (8 marks)
- b) Suppose that the consumer has a demand function for good X of the form:

$$X = 10 + \frac{M}{10P}$$

If the original income is Ksh. 120 per day and the price of good X is Ksh. 3 per unit. Find the demand for good X per day. (4 marks)

- c) Suppose the price of good X falls to Ksh.2 per unit. Find his demand at his new price. (4 marks)
- d) Distinguish between Slutsky's substitution effect and Hicks substitution effect (4 marks)

QUESTION FIVE (20 MARKS)

- a) Name and Explain at least Four assumptions of the law of diminishing marginal returns (8 marks)
- b) A particular firm has Total Revenue given as $TR = 45Q - 0.5Q^2$ and Total Cost Function given as $TC = Q^3 - 8Q^2 + 57Q + 2$. Find Q that maximizes profit (Π). (6 marks)
- c) Give at least Six (6) features of a free enterprise market system. (6 marks)