



MACHAKOS UNIVERSITY

UNIVERSITY EXAMINATIONS 2019/2020

SUPPLEMENTARY EXAMINATIONS

EET 200: MICROECONOMIC THEORY II

QUESTION ONE

a) Explain the following economic concepts

- i. Marginal rate of substitution
- ii. Diminishing marginal utility
- iii. budget constraint
- iv. consumer equilibrium

(10marks)

b) Suppose that the demand equation for Delmonte, a monopolist, is given by $P = 400 - 20Q$ cost equation is given by $TC = 500 + 20Q^2$. Find the profit-maximizing price and output for the monopolist.

(6 marks)

c) What are indifference curves? Illustrate any three peculiar shapes that can be taken by indifference curves

(6marks)

d) With the aid of a diagram explain the inefficiency of a monopoly when a tax is imposed on it?

(8marks)

QUESTION TWO

A firm produces candles. The market for candles is highly competitive, with candles currently selling for \$10. The firm's short-run total cost function is $C = 200 + 0.2q$, so its marginal cost is $MC = 0.4q$.

A. What is the firm's profit-maximizing quantity?

(4marks)

B. Is the firm earning a profit?

(5marks)

C. What is the short-run shutdown price?

(3 marks)

- b) Discuss any four sources of monopoly power. (8 marks)

QUESTION THREE

- a) Consider a consumer who consumes two normal goods X1 and X2. Suppose the price of X1 reduces, Use an appropriate diagram to illustrate the effect of this price changes, while separating the income and substitution effects (10 marks)
- b) Suppose now good X1 is an inferior good, explain with a diagram the effect of the price change in each of the cases (10 marks)

QUESTION FOUR

- a) Illustrate the concept of Edge worth Box Diagram and its application (10marks)
- b) With the aid of diagrams discuss the concept of revealed preference, strong and weak axioms of revealed preference. (10marks)

QUESTION FIVE

Suppose that the consumer has a demand function for good x of the form.

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

Let his original income be Kshs.120 per day and let the price of good X be Ksh.3 per unit.

Required,

- i. Determine the demand for good X per day (6marks)
- ii. Suppose the price of good X falls to Ksh.2 per unit determine his new demand at his new price (7marks)
- iii. If the total change in demand is increased by 2 units of good X per day calculate the Substitution effect and income effect. (7marks)