



MACHAKOS UNIVERSITY

University Examinations for 2019/2020 Academic Year

SCHOOL OF BUSINESS AND ECONOMICS

DEPARTMENT OF ECONOMICS

SECOND YEAR SPECIAL/SUPPLEMENTARY EXAMINATION FOR

BACHELOR OF ECONOMICS AND STATISTICS

BACHELOR OF ECONOMICS

EET 200: MICROECONOMIC THEORY II

DATE: 22/01/2021

TIME: 2.00-4.00 PM

INSTRUCTIONS:

Answer question one and any other two questions

QUESTION ONE

- a) Explain the following economic concepts
- Marginal rate of substitution
 - Diminishing marginal utility
 - budget constraint
 - consumer equilibrium (10 marks)
- 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 (6 marks)
- d) With the aid of a diagram explain the inefficiency of a monopoly when a tax is imposed on it? (8 marks)

QUESTION TWO

- a) 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 $MC = 0.4q$.
- What is the firm's profit-maximizing quantity? (4 marks)
 - Is the firm earning a profit? (5 marks)
 - 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 X_1 and X_2 . Suppose the price of X_1 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 X_1 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 (10 marks)
- b) With the aid of diagrams discuss the concept of revealed preference, strong and weak axioms of revealed preference. (10 marks)

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,

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