



# **MACHAKOS UNIVERSITY**

**University Examinations for 2021/2022 Academic Year**

**SCHOOL OF BUSINESS AND ECONOMICS**

**DEPARTMENT OF ECONOMICS**

**FIRST YEAR FIRST SEMESTER EXAMINATION FOR**

**BACHELOR OF SCIENCE (ACTUARIAL SCIENCE)**

**BACHELOR OF ECONOMICS AND STATISTICS**

**BACHELOR OF ECONOMICS AND FINANCE**

**BACHELOR OF ARTS (ECONOMICS)**

**BACHELOR OF ECONOMICS**

**BACHELOR OF COMMERCE**

**BACHELOR OF EDUCATION**

**EET100: MICROECONOMIC THEORY I**

**DATE: 28/1/2022**

**TIME: 2.00-4.00 PM**

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## **INSTRUCTIONS:**

1. Answer question ONE and any other TWO questions
2. Question ONE Carries a total of 30 marks, while all other questions carry 20 marks each
3. Being in possession of mobile phone and/or unauthorized electronic gadget constitutes an exam irregularity.
4. Being in possession of written materials, in exam room, in any form constitutes an exam irregularity.
5. Do not write on question paper

## **QUESTION ONE (COMPULSORY) (30 MARKS)**

- a) Economics is concerned with the allocation of scarce resources. Explain three resource allocation decisions made in an economy. (6 marks)
- b) Using a diagram explain the term expansion path as applied in production theory. (6 marks)
- c) Explain three negative effects of a monopoly market structure in an economy. (6 marks)
- d) Distinguish between own price elasticity of demand and cross elasticity of demand. (4 marks)
- e) In relation to management of business, explain the application of the theory of demand. (4 marks)

f) Given the following function;

$$Q_d = 3550 - 266P$$

$$Q_s = 1576 + 240P$$

Determine the equilibrium price and quantity

(4 marks)

### QUESTION TWO (20 MARKS)

a) Briefly explain the challenges encountered by planned economic systems in their transition to market oriented economies. (10 marks)

b) The following is the demand function of good y

$$Q_D Y = 5000 - 0.5p_Y - 2.3p_W + 0.2p_X + 0.000001p_Z + 0.0037I$$

Suppose you are given

$$p_Y = 30,000 \quad Q_Y = 15,000 \quad \text{income}(I) = 60,000$$

**Compute**

- i. Price elasticity of demand and interpret your results (4 marks)
- ii. Income elasticity of demand and interpret your results (4 marks)
- iii. From income elasticity of demand, what type of product would y be (luxury or necessity good)? (2 marks)

### QUESTION THREE (20 MARKS)

a) With the aid of a diagram explain the law of variable proportions and its application

(6 marks)

b) Using indifference curve analysis explain the consumer equilibrium position and its application in your economy (8 marks)

c) Differentiate with relevant examples the concepts of normative economics and positive economics. (6 marks)

### QUESTION FOUR (20 MARKS)

a) With the aid of a diagram describe the profit maximizing level of output of a monopolist in the short run. (8 marks)

b) Differentiate the following economic concepts.

- i. Movement along the demand curve and shift in demand curve (4 marks)
- ii. Budget line and Isocost line (4 marks)
- iii. Producer surplus and consumer surplus. (4 marks)

**QUESTION FIVE (20 MARKS)**

- a) Consider the cost function of Bamburi Cement Ltd given by Total cost (TC) =  $4Q^2 + 16$ . Find the variable cost, fixed cost, average cost, average variable cost, average fixed cost and the marginal cost for Bamburi Cement Ltd. (10 marks)
- b) Demonstrate how the quantity demanded for both substitutes and complements for a commodity will each shift, due to an increase in the price of the commodity. (6 marks)
- c) A monopoly might charge different prices to different customers of similar goods and services in different markets in order to increase his profit levels and where price differences are not justified by cost differences. Highlight four conditions for price discrimination. (4 marks)