



# UNIVERSITY

# UNIVERSITY EXAMINATIONS

2<sup>ND</sup> SEMESTER 2023/2024 ACADEMIC YEAR

# SECOND YEAR EXAMINATION FOR THE DEGREE OF BACHELOR OF EDUCATION

# **BUST 223: ECONOMIC THEORY I**

STREAM: BED ARTS

TIME: 2 HRS

DAY: THURSDAY [11.30-1.30 P.M] DATE: 11/04/2024

THIS QUESTION PAPER CONSISTS OF THREE (3) PAGES
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#### **INSTRUCTION:**

- (i) Answer Question One and other TWO Questions
- (ii) Write succinctly and legible

### **QUESTION ONE**

- a) Differentiate between the following terms
  - i. Opportunity cost and production possibility frontier

(4 marks)

ii. Veblen goods and giffen goods

(4 marks)

- iii. Marginal rate of substitution and marginal rate of technical substitution (4 marks)
- b) The following table represent a production cost data for a hypothetical firm in a **perfectly competitive** industry

Output (units)	0	10	20	30	40	50	60	70	80
Total cost (Ksh.)	150	210	260	310	380	460	580	750	950

### Required;

- i. Explain whether the firm is operating in the short run or long run (3 marks)
- ii. Calculate the firm's average total cost and marginal cost at each given level of output (4 marks)
- iii. Given that the price per unit of output is Ksh. 12, what level of output should the firm produce optimally? (2 marks)
- iv. Give a reason for your answer in (iii)

(3 marks)

c) With aid of a well labeled diagram, show the long run equilibrium position in a perfectly competitive market (6 marks)

#### **QUESTION TWO**

a) The following economic functions has been derived by the manager of Annex limited company

$$Q_a = 3p^2 - 4p$$

$$Q_b = 24 - p^2$$

Where P represents price and Q is the quantity

#### Required:

- i. Identify with reason the demand curve and supply curve. (4)
  - (4 marks)
- ii. At what values of price and quantity is the market in equilibrium? (6 marks)
- b) Using diagrams, explain the effects of the following factors on demand or supply
  - i. Increase in consumers' income

(4 marks)

ii. Increase in commodity's price

(4 marks)

iii. Increase in cost of production

(2marks)

#### **OUESTION THREE**

a) Explain three determinants of elasticity of demand.

(6 marks)

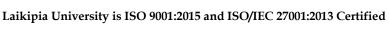
b) Discuss five qualities of a well-behaved indifference curve.

(5 marks)

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c) Using the ordinalist approach, show how the demand curve for a normal good can be derived. (9 marks)

#### **OUESTION FOUR**

- a) The total cost function of producing commodity P is  $200 30Q + 15Q^2 + 12Q^3$ . Compute the:
  - i. Equation for average total fixed cost. (2 marks)
  - ii. Equation for average variable cost (2 marks)
  - iii. Equation for marginal cost function (2 marks)
  - iv. Value of total cost for producing 10 units (2 marks)
- b) Define the law of diminishing returns as applied in economics (4 marks)
- c) Using a well-labeled diagram demonstrate the three stages of production in the short run period implied by the law of diminishing returns (8 marks)

## **QUESTION FIVE**

- a) Their exist a market where there is only one seller who determine the price at which to sell their commodities, entry is restricted and goods do not have close substitutes. Explain the sources of firm's power in this market structure. (10 marks)
- b) In an attempt to protect poor consumers the government can decide to set the prices of basic commodities below market equilibrium. Using a well labeled diagram explain the consequences of such a policy to the economy. (10 marks)