



# MURANG'A UNIVERSITY OF TECHNOLOGY

## SCHOOL OF ENGINEERING TECHNOLOGY

DEPARTMENT OF \_\_\_\_\_

UNIVERSITY ORDINARY EXAMINATION

2023/2024 ACADEMIC YEAR

**THIRD YEAR SECOND SEMESTER EXAMINATION FOR BACHELOR OF  
TECHNOLOGY \_\_\_\_\_**

EMT304: ENGINEERING ECONOMICS AND PRINCIPLES OF  
MANAGEMENT

DURATION: 2 HOURS

### INSTRUCTIONS TO CANDIDATES:

1. Answer Question one and any other two questions.
2. Mobile phones are not allowed in the examination room.
3. You are not allowed to write on this examination question paper.

## **SECTION A: ANSWER ALL QUESTIONS IN THIS SECTION**

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

- a) Differentiate the following terms applied in engineering economics
  - i. Demand and supply
  - ii. Quality and quantity
  - iii. Substitutes and complements (6marks)
- b) State the macroeconomic law of supply (2marks)
- c) By use of a mathematical formula, illustrate;
  - i. Point elasticity
  - ii. Arce elasticity (4marks)
- d) Sketch in a price-quantity plane and explain three (3) types of supply elasticity (6marks)
- e) Define price and output determination in competitive market (2marks)
- f) List five(5) internal forces within an organization that may affect its ability to realize its goals and objectives (5marks)
- g) Mention five (5) methods of business environment analysis. (5marks)

## **SECTION TWO: ANSWER ANY TWO QUESTIONS**

### **QUESTION TWO (20 MARKS)**

- a) List five(5) components of macro-environment considered when analysing business environment (5marks)
- b) List and explain the five (5) basis forms of business entities. (10marks)

### **QUESTION THREE (20 MARKS)**

- a) Define the following terms
  - i. Production
  - ii. Utility (2marks)
- b) List six(6) methods of demand forecasting (6marks)
- c) In the case of tea farming in Kenya explain the four(4) factors of production that are applied to its success (7marks)

**QUESTION FOUR (20 MARKS)**

- a) Explain the following types of elasticity of supply:
- i. P\_\_\_\_\_
  - ii. Unit elasticity
  - iii. Perfect elastic (3marks)
- b) State five (5) expectations to the law of supply giving relevant examples in Kenya.
- c) Sketch a graph of cost per unit against quantity of output, illustrating three (3) different types of costs. (7marks)