



TECHNICAL UNIVERSITY OF MOMBASA

SCHOOL OF ENGINEERING AND TECHNOLOGY

ELECTRICAL AND ELECTRONICS ENGINEERING DEPARTMENT

UNIVERSITY EXAMINATION FOR:

BACHELOR OF TECHNOLOGY IN ELECTRICAL AND ELECTRONIC ENGINEERING

TEE 4417 INDUSTRIAL ENGINEERING MANAGEMENT

END OF SEMESTER EXAMINATION

SERIES: APRIL 2025

TIME: 2 HOURS

DATE: April 2025

Instructions to Candidates

You should have the following for this examination

-Answer Booklet, examination pass and student ID

This paper consists of **five** Questions; Question ONE is compulsory. In addition attempt any Other TWO Questions.

Do not write on the question paper

Question ONE

- (a) (i) Define the term management. **(2 marks)**
- (ii) Explain in detail the various functions of management. **(18 marks)**
- b)(i) Discuss the **THREE** levels of production management.
- (ii) State the benefits derived from higher productivity in an organisation **(10 marks)**

Question TWO

- (a) Enumerate the **SIX** activities of management according to Henry Fayol. **(6 marks)**
- (b) Describe the **FOURTEEN** principles of management according to Henry Fayol **(14 marks)**

Question THREE

- (a) State the assumptions of:
 - (i) Theory X
 - (ii) Theory Y

and explain the effect of each in an organization.

(16 marks)

(b) Outline Maslows hierarchy of needs

(4 marks)

Question FOUR

(a) State the need of plant selection analysis.

(5 marks)

(b) Describe the concept of dimensional analysis and derive an expression of the relative merit.
(7 marks)

(c) (i) Distinguish between controllable factors and uncontrollable factors that determine plant location.

(ii) Outline the dominant factor for a manufacturing organization. **(8 marks)**

Question FIVE

(a) (i) Explain the meaning of inventory.

(ii) State the component that fall in:

(I) direct inventory

(II) indirect inventory

(10 marks)

(b) (i) Explain the inventory control function in an organization.

(ii) Describe the costs that determine overall cost of inventory.

(10 marks)