



TECHNICAL UNIVERSITY OF MOMBASA

SCHOOL OF ENGINEERING AND TECHNOLOGY

Department of BUILDING & Civil engineering

UNIVERSITY EXAMINATION FOR:

BACHELOR OF TECHNOLOGY IN CIVIL ENGINEERING

TCV 4326 : CONSTRUCTION TECHNOLOGY IV

END OF SEMESTER EXAMINATION

SERIES: APRIL 2025

TIME: 2 HOURS

PAPER A

Instructions to Candidates

You should have the following for this examination

-Answer Booklet, examination pass and student ID

This paper consists of **five** questions.

Attempt question ONE (Compulsory) and any other TWO questions.

Do not write on the question paper.

QUESTION ONE (COMPULSORY) 20 Marks

- a) With the aid of a sketch explain the construction of a septic tank (10 marks)
- b) Explain the following;
 - i) Above ground drainage system
 - ii) Below ground drainage system (10 marks)

ANSWER ANY TWO QUESTIONS FROM THIS SECTION

QUESTION TWO (20 Marks)

- a) Explain the construction and operation of a fireplace (10 marks)
- b) Explain the following;
 - i) Separate drainage system
 - ii) Combined system
 - iii) Soak away/soak pit
 - iv) Cess pool
 - v) Storm water
 - vi) Sewage (10 marks)

QUESTION THREE (20 Marks)

- a) State the principles of good drainage system (6 marks)
- b) State the roles of a sewerage inspector (4 marks)
- c) Use a sketch to outline the single stack system (6 marks)
- d) Sketch the following
 - i) P trap
 - ii) Bottle trap
 - iii) Socket
 - iv) Socket and spigot (4 marks)

QUESTION FOUR (20 Marks)

- a) With the aid of a sketch explain the installation of indirect cold water system for storey building (10 marks)
- b) Sketch the following sewer appurtenance (5 marks)
- c) Name the pipes used in drainage systems (5 marks)

QUESTION FIVE (20 Marks)

- a) Explain the following ;
 - i) Three phase power supply
 - ii) Single phase power supply (4 marks)
- b) Explain the construction of a manhole (6 marks)
- c) With the aid of a sketch explain the importance of a dependent scaffolding (10 marks)

