



TECHNICAL UNIVERSITY OF MOMBASA

SCHOOL OF ENGINEERING AND TECHNOLOGY

Department of BUILDING & Civil engineering

UNIVERSITY EXAMINATION FOR:

BACHELOR OF TECHNOLOGY IN CIVIL ENGINEERING

TCV 4226 : CONSTRUCTION TECHNOLOGY II

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) Explain the construction of cavity wall attached to solid ground floor
(10 marks)
- b) Sketch the following types of doors
 - i) Framed, ledged and braced doors
 - ii) Flush doors (6 marks)
- c) Sketch the front view of a loaded stretcher bonded block wall (4 marks)

ANSWER ANY TWO QUESTIONS FROM THIS SECTION

QUESTION TWO (20 Marks)

- a) State eight qualities of good formwork to framed structures (8 marks)
- b) Explain the construction of pre stressed concrete beam (8 marks)
- c) Name four sanitary appliances in domestic dwelling (4 marks)

QUESTION THREE (20 Marks)

- a) Explain the construction of fireplaces and operation (10 marks) (
- b) Describe the following types of ceilings
 - i) Coffered ceiling
 - ii) Cathedral ceiling
 - iii) Tray ceiling (6 marks)
- c) State four roles of a building inspector on site (4 marks)

QUESTION FOUR (20 Marks)

- a) Explain the procedure of wall tiling, using ceramic tile (10 marks)
- b) Outline the following parts of a stair
 - i) Flight
 - ii) Landing
 - iii) Tread
 - iv) Riser
 - v) Nosing
 - vi) Winder
 - vii) Stringer
 - viii) Baluster
 - ix) Newel
 - x) Hand rail (10 marks)

QUESTION FIVE (20 Marks)

- a) Explain the construction of a pre-cast concrete floor (6 marks)
- b) Outline the following ;
 - i) Load bearing wall
 - ii) Framed structure
 - iii) In situ concrete
 - iv) All in aggregate (4 marks)
- c) Explain the importance of workers compensation Act in building works (6 marks)
- d) Outline the roles of the following professionals in building
 - i) Architect
 - ii) Structural Engineer
 - iii) Clerk of works
 - iv) Resident Engineer
 - v) Service engineer (4 marks)

