



TECHNICAL UNIVERSITY OF MOMBASA

SCHOOL OF ENGINEERING AND TECHNOLOGY
Department of BUILDING & Civil engineering
UNIVERSITY EXAMINATION FOR:

BACHELOR OF SCIENCE IN CIVIL ENGINEERING
ECV 4225 BUILDING TECHNOLOGY 11

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) 30 Marks

- a) Explain the components of a framed concrete column (10 marks)
- b) With the aid of a sketch explain the construction of solid ground floor (10 marks)
- c) With the aid of a sketch explain the plastering of a concrete surface (10 marks)

ANSWER ANY TWO QUESTIONS FROM THIS SECTION

QUESTION TWO (20 Marks)

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

QUESTION THREE (20 Marks)

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

QUESTION FOUR (20 Marks)

- a) Explain the process of fixing ceramic tiles on walls (10 marks)
- b) Outline the following components of stairs
 - 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 pre cast concrete floor (6 marks)
- b) Explain the following;
 - i) Load bearing wall
 - ii) Framed structure
 - iii) In situ concrete
 - iv) All In concrete (4 marks)
- c) Explain the importance of workers compensation Act (6 marks)
- d) State the roles of the following professional
 - i) Architect
 - ii) Structural Engineer
 - iii) Clerk of works
 - iv) Resident Engineer
 - v) Service engineer (4marks)

