



MURANG'A UNIVERSITY OF TECHNOLOGY

SCHOOL OF ENGINEERING AND TECHNOLOGY

DEPARTMENT OF ENGINEERING TECHNOLOGY

UNIVERSITY ORDINARY EXAMINATION

2020/2021 ACADEMIC YEAR

**SECOND YEAR FIRST SEMESTER EXAMINATION FOR, DIPLOMA IN
CIVIL ENGINEERING.**

SEB 1230– CONSTRUCTION TECHNOLOGY III

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) Outline the three functional requirements of a roof. (3 marks)
- b) State Four reasons for underpinning foundation. (4 marks)
- c) Outline the procedure for constructing a pavement using cabro blocks. (4 marks)
- d) State Four design principles considered when designing a retaining wall. (4 marks)
- e) Explain Three Functional requirements of an external wall. (6 marks)
- f) With the aid of an illustration, explain how continuity is ensured while underpinning a foundation. (5 marks)
- g) Highlight Four reasons for dewatering a site. (4 marks)

SECTION B – ANSWER ANY TWO QUESTIONS IN THIS SECTION

QUESTION TWO (20 MARKS)

- a) State Six Factors to consider when selecting roof covering materials (6 marks)
- b) Distinguish between open eave and closed eave. (4 marks)
- c) Using a well labelled sketch illustrate the details at the eaves and ridge of a pitched roof when the eave is closed. (10 marks)

QUESTION THREE (20 MARKS)

- a) State the factors to consider for a good formwork. (6 marks)
- b) Outline four basic requirements for reinforcement. (4 marks)
- c) Using a well labelled diagram show different parts of a slab and beam formwork. (10 marks)

QUESTION FOUR (20 MARKS)

- a) With the aid of an illustration describe a flying shore stating the reasons for its use. (7 marks)
- b) Explain Four common defects of wall plasters. (8 marks)
- c) Give Five functional requirements of a good fireplace. (5 marks)