



**TECHNICAL UNIVERSITY OF MOMBASA**

---

**FACULTY OF ENGINEERING & TECHNOLOGY**  
**BUILDING AND CIVIL ENGINEERING DEPARTMENT**  
**END OF SEMESTER EXAMINATION**  
**DIPLOMA BUILDING AND CIVIL ENGINEERING**

**EBC 2210: BUILDING TECHNOLOGY III**

**MAY 2016 SERIES**

**This paper consist of FIVE questions answer only THREE questions;**

---

- Q1 (a) Define foundation. (2marks)
- (b) Sketch the following;
- I. Pad foundation
  - II. steel grillage foundation (10marks)
- (c) Explain the procedure of casting a pile in situ. (8marks)
- Q2 (a) Define the term stair. (2marks)
- (b) With aid of a diagram explain the following types of stairs;
- I. cranked slab stair
  - II. straight flight with landing
  - III. precast concrete stair (18marks)
- Q3 (a) State seven principles of a good drainage system (7marks)
- (b) Explain three types of drainage (6 marks)
- (c) Outline FOUR points at which manholes should be positioned (4 marks)
- (d) Mention Three methods of testing drainage (3marks)

- Q 4 (a) With aid of a diagram explain the three methods of dewatering (9marks)
- (b) Outline procedure of underpinning using traditional method. (7marks)
- (c) Draw and label a diagram of a manhole (4marks)
- Q5 (a) State situations that require shoring (8marks)
- (b) With the aid of a sketch, explain the following types of shoring;
- I. raking shore
  - II. flying shore
- (12marks)