



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 the following terms;

- (i) temporally works
- (ii) shoring (4marks)

(b) State situations where shoring can be done (5marks)

(c) Draw a sketch of a dead shoring. (11marks)

Q2 (a) Explain and sketch three types of dewatering (12marks)

(b) Explain THREE causes of uneven loading on soils (3marks)

(c) With the aid of a diagram, explain the underpinning schedule (5marks)

Q3 (a) Define the following terms in drainage;

- (i) separate system
- (ii) combined system
- (iii) partially separate system
- (iv) drainage
- (v) underpinning (10marks)

- (b) The total surface area of a foot path and roadways of a building development scheme is found to be 4000m cubed.

Calculate the diameter of the main surface water drain using the following data;

- Rainfall intensity-----50mm/hr
- impermeable factor of surface---0.9
- Velocity of flow required---0.8ms

(10marks)

Q4 (a) Define the following terms;

(i) Manhole.

(ii) Stairs

(4marks)

(b) Draw a well labeled diagram of an inspection chamber

(5marks)

(c) Sketch and label a timber stair

(11marks)

Q5 (a) Draw a section of cranked stair

(5marks)

(b) With the aid of a diagram, explain a grillage foundation

(7marks)

(c) Sketch a continuous column foundation

(8marks)