



TECHNICAL UNIVERSITY OF MOMBASA
**Faculty of Engineering &
Technology**

DEPARTMENT OF BUILDING & CIVIL ENGINEERING
**DIPLOMA IN BUILDING & CIVIL ENGINEERING
(DBCE 13M)**

EBC 2108: BUILDING TECHNOLOGY I

END OF SEMESTER EXAMINATION

SERIES: DECEMBER 2013

TIME ALLOWED: 2 HOURS

Instructions to Candidates:

You should have the following for this examination

- *Answer Booklet*

This paper consists of **FIVE** questions. Answer any **THREE** questions

Maximum marks for each part of a question are as shown
This paper consists of **THREE** printed pages

Question One

- a) Outline FOUR roles of a building inspector as per the building code. **(8 marks)**
- b) With the aid of sketches, explain the following:
(i) Timbering
(ii) Battering **(8 marks)**
- c) Sketch and label the parts of an independent scaffold **(4 marks)**

Question Two

- a) With the aid of a sketch, explain the setting out of a rectangular building using builder's square. **(8 marks)**
- b) With the aid of sketches, describe the following:
(i) Raft foundation
(ii) Pad foundation **(8 marks)**
- c) Explain the roles of the following on site:
(i) Clerk of works
(ii) Resident engineers **(4 marks)**

Question Three

- a) Sketch and label the parts of a dog leg stair **(6 marks)**
- b) With the aid of a sketch, explain the construction of a solid group floor **(8 marks)**
- c) Sketch and label the parts of a casement window **(6 marks)**

Question Four

- a) Define the following:
(i) Curing of concrete
(ii) Setting out
(iii) Damp proof course
(iv) Spacer block
(v) Reinforced concrete **(10 marks)**
- b) Sketch the following:
(i) Flush door
(ii) Ledged and battened door **(6 marks)**
- c) With the aid of a sketch, explain the construction of a random rubble wall **(4 marks)**

Question Five

- a) Outline the procedure of fixing ceramic tiles as a floor finish **(6 marks)**
- b) Sketch and label the parts of the following:
- (i) Couple roof
 - (ii) Lean to roof
 - (iii) Trussed roof **(6 marks)**
- c) Sketch and label the parts of a corner profile board **(6 marks)**
- d) Name FOUR types of sanitary appliances **(2 marks)**