



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

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

EBC 2230: BUILDING TECHNOLOGY II

END OF SEMESTER EXAMINATION

SERIES: APRIL 2014

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 of the **FIVE** questions

All questions carry equal marks

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

Question One

- a) With the aid of sketches, explain the construction of framed structure using reinforced concrete in pad foundation. **(8 marks)**
- b) State FOUR advantages of upper floor construction. **(4 marks)**
- c) Sketch and label the following:
(i) Stanchion to base plate steel connection
(ii) Stanchion to stanchion steel connection **(4 marks)**
- d) Outline the importance of soil investigation before the construction of a storey building. **(4 marks)**

Question Two

- a) Define the following:
(i) Dado rails
(ii) Cornice
(iii) Wooden parquets
(iv) Dry lining fixing **(4 marks)**
- b) With the aid of sketches, explain the fixing of wooden skirting. **(8 marks)**
- c) With the aid of sketches, describe TWO types of ceilings. **(8 marks)**

Question Three

- a) With the aid of sketches, describe the construction of a non-centering upper floor. **(8 marks)**
- b) Differentiate the following:
(i) Carpenter's 2nd fixing from carpenter's 1st fixing
(ii) Metal lath from claddings **(4 marks)**
- c) With the aid of sketches explain the operation of a fire place. **(8 marks)**

Question Four

- a) With the aid of sketches, describe the following:
(i) Cladding
(ii) Curtain walling
(iii) Panel wall **(12 marks)**
- b) With the aid of sketches, describe the construction of a matatu stage by using pre-cast concrete units. **(8 marks)**

Question Five

- a) With the aid of sketches, explain the use of castellated beam in framed structures using steel. **(8 marks)**
- b) Using sketch explain the use of formwork to a beam in insitu concrete work. **(8 marks)**
- c) State FOUR qualities of a good formwork. **(4 marks)**