



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

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

EBC 2204: 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 **THREE** printed pages

Question One

- a) Define the following:
 (i) Hearth
 (ii) Architect rave
 (iii) Stanchion
 (iv) Curtain walling **(4 marks)**
- b) Outline the functions of cladding **(4 marks)**
- c) Explain reinforcement schedule and detail of reinforced concrete beam. **(8 marks)**
- d) Sketch a typical splice detail of a precast concrete (PCC) of portal frame. **(4 marks)**

Question Two

- a) Sketch and label the following:
 (i) Gusset plate
 (ii) Bloom base
 (iii) Stanchion to stanchion fixing **(9 marks)**
- b) With the aid of sketches, explain the use of metal lathing in countering upper floor. **(6 marks)**
- c) State FIVE advantages of using concrete framed structures. **(5 marks)**

Question Three

- a) Explain the importance of soil investigation on a site before the building construction begins: **(6 marks)**
- b) Define the following:
 (i) Cornice
 (ii) Dado rail
 (iii) Skirting
 (iv) Screed **(4 marks)**
- c) With the aid of sketches, explain the procedure of fixing a wooden skirting. **(6 marks)**
- d) Name the constituents of concrete. **(4 marks)**

Question Four

- a) With the aid of sketches, explain the construction of self centering upper floor using hollow beams. **(6 marks)**
- b) Using sketches, explain the fixing of architecture to a door lining. **(8 marks)**
- c) Explain the construction of a concrete wall. **(6 marks)**

Question Five

- a) State FOUR qualities of a good formwork. **(4 marks)**
- b) With the aid of sketches, explain the process of concreting a beam. **(8 marks)**
- c) With the aid of sketches, explain the use of castellated beam when fixing services in a building. **(8 marks)**