



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

DEPARTMENT OF BUILDING & CIVIL ENGINEERING
CERTIFICATE IN BUILDING & CIVIL ENGINEERING (CBCE)

EBC 1207: BUILDING TECHNOLOGY II

END OF SEMESTER EXAMINATION

SERIES: AUGUST 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
Use neat, large and well labeled diagrams where required.
This paper consists of **THREE** printed pages

Question One

- a) State any FIVE functions of a suspended ceiling. **(5 marks)**
- b) Differentiate between the following types of a suspended ceilings:
(i) Jointless ceiling
(ii) Jointed ceiling
(iii) Luminous ceiling **(5 marks)**
- c) (i) State the requirements of a fireplace. **(2 marks)**
(ii) Make a detailed section through a fireplace and state the functions of its parts. **(8 marks)**

Question Two

- a) List down the functions that must be fulfilled by a all forms of claddings. **(6 marks)**
- b) Using sketches, differentiate between the following cladding units.
(i) Facings
(ii) Infill panels
(iii) Claddings **(14 marks)**

Question Three

- a) Describe the formation of the following types of painter.
(i) Emulsion paints
(ii) Acrylic paints
(iii) Distemper paints
(iv) Bituminous paints **(8 marks)**
- b) Outline the processes involved in painting new and old plaster surfaces. **(6 marks)**
- c) Describe the following paint defects:
(i) Chalking
(ii) Bleeding
(iii) Blistering
(iv) Blooming **(8 marks)**

Question Four

- a) State SIX requirements of formwork for suspended slabs. **(6 marks)**
- b) Using sketches describe the construction of the following upper floors.
(i) Beam and slab floors
(ii) Ribbed floors
(iii) Drop slab floors
(iv) Flush floor **(14 marks)**

Question Five

- a) Describe and detail the construction of plywood faced portal frame including methods of fixing to concrete bases. **(8 marks)**
- b) State THREE advantages and THREE disadvantages of using precast concrete portal frames. **(3 marks)**
- c) Detail the following connections of concrete portal frames to bases: **(9 marks)**
- (i) Pocket connection
 - (ii) Hinge connection
 - (iii) Base plate connection