



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

DEPARTMENT OF BUILDING & CIVIL ENGINEERING
CERTIFICATE IN BUILDING & CIVIL ENGINEERING (12S)

EBC 1308: CONSTRUCTION TECHNOLOGY III

SPECIAL/SUPPLEMENTARY EXAMINATION

SERIES: OCTOBER/NOVEMBER 2013

TIME ALLOWED: 2 HOURS

Instructions to Candidates:

You should have the following for this examination

- *Answer Booklet*
- *Scientific Calculator*

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 **TWO** printed pages

Question One

- a) Sketch and label the following sections:
- (i) Timber floating screed
 - (ii) Light weight screed **(8 marks)**
- b) State FIVE reasons for using suspended ceiling **(5 marks)**
- c) Sketch and label a section of open ceiling **(7 marks)**

Question Two

- a) State the principles factors influencing the use of steel and concrete frames **(6 marks)**
- b) With the aid of sketches, briefly describe the following elements of steel stanchion.
- (i) Slab or bloom base
 - (ii) Stanchion cap
 - (iii) Stanchion splice
 - (iv) Beam to stanchion connection **(14 marks)**

Question Three

- a) With the aid of a well labeled sketch, briefly describe:
- (i) Hollow block floors
 - (ii) Typical channel section floor units **(15 marks)**
- b) State FIVE factors considered when selecting or designing panels **(5 marks)**

Question Four

- a) State EIGHT functional requirements of cladding **(8 marks)**
- b) With the aid of a well labeled sketch, describe concrete cladding panels **(12 marks)**

Question Five

- a) State the THREE principle requirements of a fire place and flue **(3 marks)**
- b) Explain the procedure adopted when inspecting a smoky chimney **(10 marks)**
- c) Explain the purpose of flue lining **(3 marks)**
- d) Define the following terms:
- (i) Fire place
 - (ii) Chimney breast **(4 marks)**