



THE TECHNICAL UNIVERSITY OF MOMBASA

# Faculty of Engineering & Technology

DEPARTMENT OF BUILDING & CIVIL ENGINEERING

**DIPLOMA IN ARCHITECTURE (DA 12M)**

**DIPLOMA IN BUILDING & CIVIL ENGINEERING (DBC 12M)**

EBC 2515: BUILDING TECHNOLOGY II

**SPECIAL/SUPPLEMENTARY EXAMINATION**

**SERIES: FEBRUARY 2013**

**TIME: 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) With the aid of a sketch, outline the working of a fire place. **(10 marks)**
- b) State **FIVE** causes of failure of a chimney. **(5 marks)**
- c) State the use of the following in a fire place:
- (i) Throat
  - (ii) Hearth
  - (iii) Flue
  - (iv) Fire back
  - (v) Gathering
- (5 marks)**

### **Question Two**

- a) With the aid of a sketch, outline the fixing of a wooden skirt in a room. **(10 marks)**
- b) With the aid of a sketch, explain the process of plastering a block wall. **(10 marks)**

### **Question Three**

- a) Differentiate the following:
- (i) Cornice from Skirting
  - (ii) Door frame from Door Lining
  - (iii) False ceiling from dado rails
  - (iv) Plastering from rendering
  - (v) Carpenter's 2<sup>nd</sup> fixing from Interior design.
- (10 marks)**
- b) With the aid of a sketch, explain the construction of a self centering upper floor. **(10 marks)**

### **Question Four**

- a) (i) State **FIVE** advantages of framed structures.  
(ii) Explain the preparation of a pad foundation for a framed structure. **(10 marks)**
- b) Sketch the following in relation to framed structures,
- (i) Gusset base
  - (ii) Bloom base
  - (iii) Typical PCC
  - (iv) Splice of a portal frame
- (10 marks)**

### **Question Five**

- a) With the aid of a sketch describe the construction of a non-self centering upper floor. **(10 marks)**
- b) Define the following:
- (i) Cladding
  - (ii) Curtain walling

- (iii) Facings
- (iv) Precast units
- (v) Metal lath

**(10 marks)**