



THE TECHNICAL UNIVERSITY OF MOMBASA

# Faculty of Engineering & Technology

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

EBC 1107: BUILDING TECHNOLOGY I

**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 **THREE** printed pages

**Question One**

- a) Define the following terms:
- (i) Plastering
  - (ii) Curing
  - (iii) Mortar
  - (iv) Concrete
  - (v) Form work
- (10 marks)**
- b) Sketch and label the parts of a solid ground floor. **(10 marks)**

**Question Two**

- a) Explain the roles of the following in a construction industry.
- (i) Architect
  - (ii) Structural engineer
  - (iii) Quantity surveyor
- (10 marks)**
- b) Sketch and label the parts of the following:
- (i) Flint wall
  - (ii) Reinforced monolithic wall
  - (iii) Cavity wall
  - (iv) Rubble wall
- (10 marks)**

**Question Three**

- a) With the aid of sketches, describe the following types of foundations.
- (i) Raft foundation
  - (ii) Pad
  - (iii) Strip
  - (iv) Wide strip
- (10 marks)**
- b) With the aid of sketches, outline the importance of bonding in wall construction. **(10 marks)**

**Question Four**

- a) Outline the history of building in relation to human creation. **(10 marks)**
- b) Differentiate the following:
- (i) Plastering from Rendering
  - (ii) Jointing from Pointing
  - (iii) Mortar from Concrete
  - (iv) Inception from Conception
  - (v) Blocks from Bricks
- (10 marks)**

### **Question Five**

- a) Explain **FIVE** factors to consider when selection floor finishers. **(10 marks)**
- b) (i) Sketch a plan of a rectangular building and indicate the positions of profile boards.
- (ii) Sketch and label the parts of a corner profile board. **(10 marks)**