



THE TECHNICAL UNIVERSITY OF MOMBASA

Faculty of Engineering & Technology

DEPARTMENT OF BUILDING & CIVIL ENGINEERING

DIPLOMA IN ARCHITECTURE (DA 12J)

DIPLOMA IN BUILDING & CIVIL ENGINEERING (DBC 12J)

EBC 2105: 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 **TWO** printed pages

Question One

- a) Outline the roles of the following in the building team.
- (i) Architect
 - (ii) Structural engineer
 - (iii) Quantity surveyor
 - (iv) Clerk of work
- (10 marks)**
- b) Sketch and label the following types of foundations:
- (i) Wide strip
 - (ii) Raft
 - (iii) Pad
- (10 marks)**

Question Two

- a) Explain the importance of soil investigation on site. **(10 marks)**
- b) Sketch the following types of walls:
- (i) Cavity wall
 - (ii) Random rubble
 - (iii) Flint
 - (iv) Monolithic
- (10 marks)**

Question Three

- a) Sketch and label the parts of a timber stair. **(5 marks)**
- b) Sketch the following:
- (i) Straight flight
 - (ii) Launching
 - (iii) Winder
 - (iv) Dog leg stair
 - (v) Staircase
- (10 marks)**
- c) Outline the roles of a supervisor of construction works on site. **(5 marks)**

Question Four

- a) Sketch and label the following types of doors:
- (i) Panel
 - (ii) Ledged, battened and braced
- (10 marks)**
- b) With the aid of sketches, differentiate; Dependent Scaffolding from Independent Scaffolding. **(10 marks)**

Question Five

- a) With the aid of a sketch, describe the construction of solid ground floor. **(10 marks)**

b) Sketch and label the indirect domestic cold water system.

(10 marks)