



THE TECHNICAL UNIVERSITY OF MOMBASA
**Faculty of Applied & Health
Sciences**

DEPARTMENT OF ENVIRONMENTAL HEALTH

DIPOMA IN ENVIRONMENTAL HEALTH (DEH 12J)

EBC 2102: INTRODUCTION TO BUILDING TECHNOLOGY

SPECIAL/SUPPLEMENTARY EXAMINATION

SERIES: FEBRUARY 2013

TIME: 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

Maximum marks for each part of a question are as shown

This paper consists of **TWO** printed pages

Question One

- a) State **FOUR** reasons for carrying out site investigations in the design and construction of buildings: **(8 marks)**
- b) Briefly describe the following preliminary site works:
- (i) Preliminary surveying
 - (ii) Fencing
 - (iii) Site security
 - (iv) Storage facilities
 - (v) Site offices
 - (vi) Site access **(12 marks)**

Question Two

- a) Briefly describe the **FIVE** common sub soil conditions encountered in the excavation of foundations. **(10 marks)**
- b) State **FIVE** functional requirements of foundations in buildings. **(10 marks)**

Question Three

- a) With the aid of a sketch, describe the construction elements of a solid ground floor. **(12 marks)**
- b) Briefly describe the **FOUR** forms of wall construction. **(8 marks)**

Question Four

- a) Define the following terms used in the design of a staircase:
- (i) Stairwell
 - (ii) Travel
 - (iii) Nosing
 - (iv) Riser
 - (v) Flight
 - (vi) String
 - (vii) Balusters
 - (viii) Pitch **(8 marks)**
- b) With the aid of line diagrams, describe the following types of small span pitched roof construction:
- (i) Lean-to-roof
 - (ii) Couple roof
 - (iii) Closed couple roof
 - (iv) Colloor roof **(12 marks)**

Question Five

- a) With the aid of sketches, describe **FOUR** types of windows. **(8 marks)**
- b) Briefly describe the general procedure of point application to a plastered background. **(12 marks)**

