TECHNICAL UNIVERSITY OF MOMBASA

Faculty of Engineering & Technology

DEPARTMENT OF BUILDING & CIVIL ENGINEERING

DIPLOMA IN BUILDING & CIVIL ENGINEERING (DBCE 13J)

EBC 2308: BUILDING TECHNOLOGY IV

END OF SEMESTER EXAMINATION
SERIES: APRIL 2015
TIME ALLOWED: 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 of the **FIVE** questions
Maximum marks for each part of a question are as shown
All questions carry equal marks i.e. 20 each

Use neat, large and well labeled diagrams where required
This paper consists of **TWO** printed pages

Question One

a) List TWO types of openings in a building fabric **(1 mark)**

b) Define the following terms:
(i) Door lining
(ii) Door frame **(3 marks)**

c) With the aid of diagrams differentiate (i) and (ii) above **(5 marks)**

d) (i) Name Six types of doors **(3 marks)**
(ii) Show the elevation; vertical and horizontal sections of an end folding door **(8 marks)**

Question Two

a) (i) What is the primary function of a window? **(1 mark)**

(ii) Enumerate TWO secondary functions of a window **(1 mark)**

b) (i) List FOUR types of windows **(2 marks)**

(ii) With the help of single line diagrams show three designs in each type of window in (i) above **(16 mark)**

Question Three

a) Explain the purpose of retaining walls **(2 marks)**

b) List THREE types of materials used in the construction of mass retaining walls **(1 ½ marks)**

c) Give an outline of mass retaining walls. **(4 marks)**

d) Illustrate the following types of retaining walls:
(i) Brick retaining wall **(3 marks)**
(ii) Cantilever retaining wall **(5 marks)**
(iii) Counterfort retaining wall **(4 ½ marks)**

Question Four

a) Highlight the term, basement **(3 marks)**

b) (i) List THREE methods of waterproofing a basement **(1 ½ marks)**
(ii) Give an account of each of the waterproofing methods in (i) above **(9 marks)**

c) Draw a neat diagram of a basement **(6 ½ marks)**

Question Five

a) Name seven methods used in foundation dewatering **(3 ½ marks)**

b) Discuss FOUR of the methods in (a) above **(16 ½ marks)**