



TECHNICAL UNIVERSITY OF MOMBASA

FACULTY OF ENGINEERING AND TECHNOLOGY

DEPARTMENT OF BUILDING & CIVIL ENGINEERING

UNIVERSITY EXAMINATION FOR:

DIPLOMA IN BUILDING AND CIVIL ENGINEERING

EBC 2107 BUILDING TECHNOLOGY 1

END OF SEMESTER EXAMINATION

SERIES: DECEMBER 2016

TIME: 2 HOURS

DATE: 22 Dec 2016

Instructions to Candidates

You should have the following for this examination

-Answer Booklet, examination pass and student ID

-Drawing instruments.

-Scientific calculator

This paper consists of five questions.

Attempt any THREE questions.

Do not write on the question paper.

Question One

- (a) Briefly describe the stages involved in building process (**6 marks**)
- (b) Briefly explain the FOUR items involved in site investigation (**10 marks**)
- (c) Using well labeled sketch explain strip of foundation (**4 marks**)

Question Two

- (a) Sketch and label corner profile board indicating center line of wall, wall thickness, foundation and column width (**8 marks**)
- (b) Briefly explain THREE functional requirements of walls. (**6 marks**)
- (c) Briefly explain THREE ways in which dampness finds its way into building. (**6 marks**)

Question Three

- a) State FIVE functional requirements of ground floors (**5 marks**)
- b)With the aid of a well labeled sketch describe the components of solid ground floor (**9 marks**)
- c) Briefly explain FOUR principles of designing flat roofs (**6 marks**)

Question Four

- (a)Briefly explain the following functional requirements of stairs
 - (i) Strength and stability
 - (ii) Fire resistance
 - (iii) Sound insulation (**9 marks**)
- b) Sketch and label a stair flight (**6 marks**)
- c) Briefly describe the procedure of fixing a door (**5 marks**)

Question Five

a) Sketch and label the following the following door furniture

(i) Cylinder night latch

(ii) Mortise lock (**6 marks**)

b)With the aid of a sketch, describe putlog scaffolding (**8 marks**)

c) State the safety precaution for scaffolding (**6 marks**)