



TECHNICAL UNIVERSITY OF MOMBASA

FACULTY OF ENGINEERING AND TECHNOLOGY

DEPARTMENT OF BUILDING & CIVIL ENGINEERING

UNIVERSITY EXAMINATION FOR:

DEGREE

EAR 4106 : BUILDING TECHNOLOGY I

END OF SEMESTER EXAMINATION

SERIES: DECEMBER 2016

TIME: 2 HOURS

DATE: Pick Date Dec 2016

Instructions to Candidates

You should have the following for this examination

-Answer Booklet, examination pass and student ID

- Pocket calculator

This paper consists of **FIVE** questions. Attempt question ONE (Compulsory) and any other TWO questions. Question one carries 30 marks and the rest carries equal marks (20marks)

Do not write on the question paper.

Mobile phones are not allowed in the examination room.

Question ONE

- a. Give at least three types of foundations that are commonly used in building projects in Kenya.
(10 marks)

- b. Make a sketch drawing of a cross section of a concrete foundation with the floor slab raised 300mm above ground level. Assume the foundation strip sits on murrum or firm red loam soil.
(20marks)

Question TWO

- a. Give any four types of clay roofing tiles. Explain how you would prevent leakages when using with clay tiles.
(10marks)

- b. What kind of hard woods are commonly used for joinery work in building construction sites. **(10marks)**

Question THREE

- a. When constructing a bungalow, state the use of a ring beam and wall plate. **(10 marks)**
- b. Make a sketch diagram to show how the wall plate ties the roof of the building to the wall and how it prevents lateral forces like winds. **(10marks)**

Question FOUR

- a. What items are mixed to make concrete? **(4 marks)**
- b. What reason is given for not recommending coral stone to be used as load bearing material in construction? **(8marks)**
- c. Give common sizes of building stones or concrete blocks used for construction of walls. **(8 marks)**

Question FIVE

- a. Briefly explain the duties of the clerk of works on a construction site. **(10 marks)**
- b. Explain what the clerk of works would be required to record on a daily basis on a construction site. **(10marks)**