NATIONAL UNIVERSITY OF SCIENCE AND TECHNOLOGY

FACULTY OF THE BUILT ENVIRONMENT

DEPARTMENT OF ARCHITECTURE

BUILDING CONSTRUCTION 1

AAR 2102

Examination Paper

December 2015

This examination paper consists of 2 pages

Time Allowed: 4 hours

Total Marks: 100

Special Requirements: A1 Sheets, T-squares, Drawing Boards, Masking Tape

Examiner's Name: Miss M. V. Mudombo

INSTRUCTIONS

1. Answer all three (3) questions
2. Use an appropriate scale for drawings.
3. Illustrate answers with sketches
4. Marks will be awarded to neatly presented work.
5. You can either draw in pencil or technical pen.
6. Number all your sheets and do not write your name.

MARK ALLOCATION

QUESTION	MARKS
1.	**40**
2.	**30**
3.	**30**
TOTAL	**100**

QUESTION 1

a. What are the roles of an architect in the building process? [10]

b. Draw a typical section of a single story brick masonry house built under clay tiles and on good soil. The section cuts through a lounge 5m wide and a kitchen 3m wide cutting through an exterior lounge door and a kitchen window. Use a scale of 1:25 and a floor to floor height of 2800mm. [15]

c. Provide details of 3 appropriate points at a scale of 1:5 or 1:1 to show treatment of the building from moisture penetration. [15]

[40]

QUESTION 2

a. Describe with the aid of sketches any 5 different types of foundations you have learnt and in what conditions they are applied. [20]

b. Compare solid and suspended flooring systems using well annotated diagrams stating the advantages and disadvantages of each. [10]

[30]

QUESTION 3

a. What are the functions of a walling system? [5]

b. Differentiate a cavity wall from a solid wall in terms of function, structure and application. [10]

c. Draw a section of each the following roof types showing how they are drained:

i. Butterfly roof [5]
ii. Flat concrete roof [5]
iii. Lean-to roof [5]

[15]

[30]