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FEDERAL UNIVERSITY OF TECHNOLOGY, DWERRI
SCHOOL OF ENVIRONMENTAL TECHNOLOGY
ARCHITECTURE DEPARTMENT
2014/2015 HARMATTAN SEMESTER EXAMINATIONS.

Course title: - BUILDING COMPONENTS, MATERIALS AND METHODS I

Course code: - ARC 205

Time Allowed: - 2 HOURS

Date: - Monday April 13, 2015

Instruction: Answer QUESTION 1 and any other two (2) questions.

1. Design a staircase for a residential building in which the vertical distance between each floor is 3.45m (3450mm). The size of the stair hall starting from the first riser is limited to 4.5m X 3m. Use standard measurements for the **step**. SHOW SKETCH(S).
 - a) With sketches, discuss briefly any five (5) classifications of stairs.
 - b) State the methods of setting out and discuss briefly any one method.(30 marks)

2. What is a deep foundation?
 - b. State the functional requirements of a foundation.
 - c. What type of foundation should you adopt on firm leveled subsoil for a simple building and why? Discuss the foundation type.
 - d. What are load bearing walls? State the function and the area they are applied. (20 marks)

3. Write short notes on the following. Use sketches where applicable:- (20 marks)

a. Load bearing capacity.	f. Hardcore
b. Displacement pile.	g. Non load bearing wall
c. Blinding.	h. pitch
d. Subsoil.	i. Going
e. Damp proof membrane.	j. Flight

4.
 - i. State the factors responsible for the choice of foundation.
 - ii. Enumerate the functional requirements of a stair.
 - iii. Discuss briefly timbering. Show sketches (20 marks)

GOOD LUCK!!!