

NATIONAL UNIVERSITY OF SCIENCE AND TECHNOLOGY

FACULTY OF THE BUILT ENVIRONMENT

DEPARTMENT OF ARCHITECTURE

BACHELOR OF ARCHITECTURAL STUDIES (HONOURS) DEGREE

2010-2011 ACADEMIC YEAR

PART II-FIRST SEMESTER EXAMINATIONS-JANUARY 2011

AAR 2102- BUILDING CONSTRUCTION I

Instructions

Duration: 4 Hours

Answer ALL questions. Use an appropriate scale for drawings.

Marks will be awarded to neatly presented work.

You can either draw in pencil or technical pen.

Number all your sheets and do not write your name.

QUESTION 1

You have been approached by Mr. Ezeji, who seeks professional advice in acquiring a site that he intends to develop a shopping complex upon.

- a. What factors would you as the professional consider in the selection of a site for the construction of the complex? [10]
- b. You have been commissioned with the design of the shopping complex. As an architect outline and explain the roles (services) you will offer to the client. In your answer also highlight to him the other professionals that can be involved in the project [15]
- c. The site is on marshy clayey soft soils. Design a foundation for the double storey administration building for the complex. [15]
- d. Draw to appropriate scale a well annotated section through the building showing the upper floor concrete slab and the solid ground floor explaining the function of the floor parts. The office block measures 18m x 18m. It is set on a 6mx6m grid. Assume floor to floor height to be 3m, the lifts measure 2mx1 and are located centrally as shown. Illustrate with appropriate sketches indicating various names of parts and components. [40]
- e. The client intends to have a face brick wall finish. Advice with the use of sketches the different types of brick bonding that he can choose from giving advantages and disadvantages of each. [20]