NATIONAL UNIVERSITY OF SCIENCE AND TECHNOLOGY

FACULTY OF BUILT ENVIRONMENT

BACHELOR OF QUANTITY SURVEYING (HONOURS) DEGREE

PART I FIRST SEMESTER EXAMINATIONS JANUARY 2008

BUILDING CONSTRUCTION I – AQS 1110

TIME: 3 Hours **TOTAL MARKS:** 100

INSTRUCTIONS:

Answer All questions
Answer Each Question On A Fresh Page.
Use Clearly Labeled Diagrams.
Each Question Carries Equal Marks

QUESTION 1

a) State the regulatory factors which are to be considered when one is selecting a site for construction. (5)

b) A site plan is used in both design and construction stages of a building. Use a sketch of a hypothetical site plan to illustrate the features which are included in a site plan. (15)

c) What precautions are to be taken when digging foundations trenches which are more than a metre deep? (5)

QUESTION 2

a) What is meant by the bearing capacity of soil. Explain how it influences foundation design. (5)

b) A very steep slope affects a building's form, type of foundation etc. Using sketch drawings illustrate how a steep slope can affect a buildings form and foundation type. (15)

c) State the advantages & disadvantages of strip Foundations. (5)

QUESTION 3

a) Illustrate with the aid of drawings the difference between a solid floor slab and a suspended floor slab. (10)

b) What are the main functions of a floor in a building? (5)

c) Under-ground water can penetrate a building through the floor. Explain with the aid of drawings how rising damp can be prevented from getting in to the building. (10)

QUESTION 4

Provide a section through the external wall of a residential building with a suspended timber floor section from foundation level up to the roof level and label all types of used materials as well as providing their dimensions. (25)