

NATIONAL UNIVERSITY OF SCIENCE AND TECHNOLOGY
FACULTY OF THE BUILT ENVIRONMENT
BACHELOR OF QUANTITY SURVEYING (HONOURS) DEGREE
PART 1 FIRST SEMESTER EXAMINATIONS – JANUARY 2013
BUILDING CONSTRUCTION I - AQS 1110

Instructions

Time: 3 hours

Answer any four questions

Question One

- a) Discuss challenges associated with building on each of the following types of soils:
- i. Gravel [3 marks]
 - ii. Clay [3 marks]
 - iii. Peat [3 marks]
 - iv. Sand [3 marks]
- b) A two storey building is to be built on made-up ground. Detail the type of foundation that will be appropriate for this building, justifying your choice. [13 marks]

Question Two

- a) Discuss five functional requirements of a ground floor. [10 marks]
- b) Ground floors can be classified into two categories basing on method of construction and materials used. Differentiate these two categories with the aid of sketches and specify where each can be best recommended. [15 marks]

Question Three

- a) What are the adverse effects caused by water penetration into buildings? [5 marks]
- b) Detail construction techniques that can be adopted to prevent lateral and vertical penetration of water into buildings. [20 marks]

Question Four

- a) Identify five types of stairways and describe the major features of each. [20 marks]
- b) Critique the use of in-situ for precast concrete in stairs construction. [5 marks]

Question Five

The most appropriate form of roof structure for a particular building depends on a number of factors. Explain these factors. [25 marks]

END OF EXAMINATION