

**NATIONAL UNIVERSITY OF SCIENCE AND TECHNOLOGY**

**FACULTY OF BUILT ENVIRONMENT**

**BACHELOR OF QUANTITY SURVEYING (HONOURS) DEGREE**

**PART I SUPPLEMENTARY EXAMINATIONS OCTOBER 2009**

**BUILDING CONSTRUCTION I – AQS 1110**

**TIME:** 3 Hours

**TOTAL MARKS:** 100

**INSTRUCTIONS:**

**Answer Questions 1 and 2 and any other 2 Questions.**

**Question 1**

- a) Identify and explain the factors that are considered when selecting a site for constructing a building. (15 marks)
- b) Outline the roles played by the following professionals at precontract stage.
  - i) Architect (4 marks)
  - ii) Quantity Surveyor (4 marks)
  - iii) Structural Engineer (4 marks)
- c) What is the importance of a site plan? (3 marks)

**Question 2**

- a) With the aid of diagrams illustrate the following:-
  - i) Pad foundation (5 marks)
  - ii) Strip foundation (5 marks)
  - iii) Raft foundation (5 marks)
- b) Briefly explain how bearing capacity of soil can be improved. (5 marks)

### **Question 3**

- a) A ground floor is an important component on buildings. Identify and explain the purpose of the various elements constituting a solid ground floor. (12 marks)
- b) List the advantages and disadvantages of solid ground floors. (8 marks)
- c) Outline the functional requirements of a ground floor. (5 marks)

### **Question 4**

- a) List the properties of a wall. (5 marks)
- b) Outline the general principles to be observed when constructing cavity walls. (10 marks)
- c) Differentiate the following:-
  - i) Block work and Brickwork. (5 marks)
  - ii) English Bond and Flemish Bond. (5 marks)

### **Question 5**

- a) Explain and illustrate the following:-
  - i) Flat roof (4 marks)
  - ii) Hipped roof (4 marks)
  - iii) Lean-to roof (4 marks)
- b) State the functions of roofs. (5 marks)
- c) Differentiate between a dormer and a roof ventilator (4 marks)
- d) List four types of roof covering materials. (4 marks)

**END OF EXAMINATION**