

**NATIONAL UNIVERSITY OF SCIENCE AND TECHNOLOGY**

**FACULTY OF BUILT ENVIRONMENT**

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

**PART II SUPPLEMENTARY EXAMINATIONS OCTOBER 2009**

**BUILDING CONSTRUCTION II AQS 2104**

**TIME:** 3 Hours

**TOTAL MARKS:** 100

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**Instructions to Candidates**

Answer any four questions.

**Question 1**

- a) What are the functional requirements of a good ground floor? (5 marks)
- b) Illustrate with aid of diagrams a typical section of a suspended timber ground. (10 marks)
- c) List the advantages and disadvantages of timber floors. (10 marks)

**Question 2**

- a) Differentiate the following types of roofs:
  - i) Flat roof and hipped roof (3 marks)
  - ii) Northlight roof and monitor roof (3 marks)
- b) Illustrate a well detailed sketch showing the junction of a pitched roof and external wall at eaves. (15 marks)
- c) List the properties of a roof. (4 marks)

**Question 3**

- a) Why is it necessary to include doors in buildings? (5 marks)
- b) The following are types of doors that exist. Draw neat labelled sketches for these doors showing the plan and sections and /or elevations.
  - i) Two panel with glass on top and timber on bottom. (8 marks)
  - ii) Half solid core door (6 marks)
- c) List the situations where the doors in (b) above can be used. (6 marks)

**Question 4**

- a) Why is it important to include ceilings in buildings? (4 marks)
- b) With the aid of diagrams and examples differentiate jointless ceiling and jointed ceiling. (15 marks)
- c) List the properties of good ceiling. (6 marks)

**Question 5**

- a) What is prestressing in concrete works? (5 marks)
- b) Illustrate with the aid of labelled diagrams the following connections in framed structures:
  - i) Precast concrete column to foundation connection. (10 marks)
  - ii) Structural steel column base. (10 marks)