

NATIONAL UNIVERSITY OF SCIENCE AND TECHNOLOGY

FACULTY OF BUILT ENVIRONMENT

BACHELOR OF QUANTITY SURVEYING (HONOURS) DEGREE

PART II FIRST SEMESTER EXAMINATIONS APRIL 2009

BUILDING CONSTRUCTION II – AQS 2104

TIME: 3 Hours

TOTAL MARKS: 100

INSTRUCTIONS:

Answer all questions in Section A and any one question in Section B

SECTION A

Question One

- a) With the aid of diagrams explain the difference between a solid ground floor and a suspended timber ground floor. *(15 marks)*
- b) Illustrate the constructional arrangement of a suspended timber upper floor around a fireplace or staircase showing all the elements. *(10 marks)*

Question Two

- a) Write brief notes on the following
- i) Hipped roof *(2 marks)*
 - ii) Flat roof *(2 marks)*
 - iii) Northlight roof *(2 marks)*
 - iv) Monitor roof *(2 marks)*
 - v) Dormer *(2 marks)*
- b) Illustrate a well detailed sketch showing the junction of a reinforced concrete roof and external parapet wall with a precast concrete coping *(15 marks)*

Question Three

- a) Explain with aid of labeled plan, section and/or elevation how the following types of doors are made and situations where they can be used.
- i) Hollow core flush panel *(4 marks)*
 - ii) Solid core flush panel *(4 marks)*
 - iii) Fire rating door *(4 marks)*
 - iv) Battened door *(4 marks)*
- b) Illustrate a labeled elevation and section of a two-panelled door with the top being glass and the bottom panel being timber. *(4 marks)*

SECTION B

Question Four

- a) What does prestressing mean in concrete terms? *(5marks)*
- b) Explain and illustrate the difference between pre tensioned and post tensioned concrete *(10marks)*
- c) In framed structures illustrate with aid of labeled diagrams the following connections:-
- i) Reinforced concrete slab and beam *(5 marks)*
 - ii) Precast concrete column to foundation connection *(5 marks)*
 - iii) Structural steel column base *(5 marks)*

Question Five

- a) Outline the reasons of including a suspended ceiling in a building *(5 marks)*
- b) Explain and illustrate two types of suspended ceilings. *(15 marks)*
- c) Identify and describe three categories of floor finishes by giving at least one example of each. *(10 marks)*

END OF EXAMINATION