

**NATIONAL UNIVERSITY OF SCIENCE AND TECHNOLOGY**

**FACULTY OF BUILT ENVIRONMENT**

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

**PART II SUPPLEMENTARY EXAMINATIONS – AUGUST 2013**

**BUILDING CONSTRUCTION II – AQS 2104**

**TIME:** 3 Hours

**TOTAL MARKS:** 100

**INSTRUCTIONS:**

**Answer any Four Questions**

**All Questions carry equal marks**

**Question 1**

- a) Outline the functional requirements of suspended ceilings. (5 marks)
- b) List any four types of materials used for stairway construction (4 marks)
- c) State four distinct disadvantages of precast concrete stairs against insitu concrete stairs (4 marks)
- d) With aid of clearly labeled diagram explain how a jointless suspended ceiling is constructed (12 marks)

**Question 2**

- a) State the ways of classifying piles (4 marks)
- b) Explain the importance of reinforcing concrete (3 marks)
- c) Discuss the method of post-tensioning concrete (10 marks)
- d) With the aid of diagram illustrate how a structural steel column is connected to its base or foot (8 marks)

**Question 3**

- a) Outline the functional requirements of a roof (5 marks)
- b) Show diagrammatically and discuss the following roof forms
  - (i) Flat roof (5 marks)
  - (ii) Monitor roof (5 marks)
  - (iii) Northlight roof (5 marks)
  - (iv) Saw tooth (5 marks)

**Question 4**

- a) With aid of clearly labeled diagrams compare and contrast flexible and rigid pavement (18 marks)
- b) Discuss how stormwater can be drained from pavements (7 marks)

**Question 5**

- a) State the advantages of precast concrete floors against conventional in situ concrete in high rise buildings (5 marks)
- b) Show diagrammatically and discuss the construction of the following floor systems
  - (i) Precast hollow (10 marks)
  - (ii) Suspended timber (10 marks)

**END OF EXAMINATION**