

NATIONAL UNIVERSITY OF SCIENCE AND TECHNOLOGY
FACULTY OF BUILT ENVIRONMENT
BACHELOR OF QUANTITY SURVEYING (HONOURS) DEGREE
PART I FIRST SEMESTER EXAMINATIONS FEBRUARY 2010
BUILDING CONSTRUCTION I - AQS 1110

TIME: 3 Hours

TOTAL MARKS: 100

INSTRUCTIONS:

Answer any four Questions

Question 1

- (a) With the aid of clearly labeled neat diagrams explain and differentiate between solid concrete ground floor and suspended timber ground floor. (15 marks)
- (b) Outline the advantages and disadvantages of suspended timber ground floors (10 marks)

Question 2

- a) Identify and illustrate with aid of diagrams any three types of foundations showing where these can possibly be employed. (15 marks)
- b) Outline the functions of a good foundation (5 marks)
- c) Briefly explain what bearing capacity of soil is and how can it be improved (5 marks)

Question 3

- a) Identify and explain the factors that are considered when selecting a site for constructing a building. (12 marks)
- b) What is the importance of a site plan? (4 marks)
- c) Briefly explain three methods of subsoil investigation (9 marks)

Question 4

- a) List any five building materials used for wall construction (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) Differentiate between a Flat roof and pitched roof (6 marks)
- b) State the functions of roofs. (5 marks)
- c) List four types of roof covering materials. (4 marks)
- d) Illustrate a well detailed sketch showing the junction of a pitched roof and external wall at eaves (10 marks)

Question 6

- 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 (5 marks)
 - ii) Solid core flush panel (5 marks)
 - iii) Fire rating door (5 marks)
 - iv) Battened door (5 marks)
- b) Illustrate a labeled elevation and section of a two-paneled door with the top being glass and the bottom panel being timber. (5 marks)

END OF EXAMINATION