

NATIONAL UNIVERSITY OF SCIENCE AND TECHNOLOGY
FACULTY OF THE BUILT ENVIRONMENT
BACHELOR OF QUANTITY SURVEYING (HONOURS) DEGREE
PART II SUPPLEMENTARY EXAMINATIONS – JULY 2014
BUILDING CONSTRUCTION III – AQS 2201

TIME: 3 hours

Total marks: 100

Instruction to candidates

Answer question 1 and any other 3

Question 1

- a) Excavation support systems can be classified as permanent or temporary. Describe and illustrate TWO methods of permanent and TWO methods of temporary support. (12 marks)
- b) Describe and illustrate two methods of providing lateral restraint to the wall (13 marks)

Question 2

Discuss, sketch and annotate cross-sections through basement walls constructed using:

- i. Impermeable barrier (8 marks)
- ii. Monolithic concrete (8 marks)
- iii. Drained cavity (9 marks)

Question 3

- a) Describe and compare the characteristics and benefits of table formwork and drop-head formwork. (25 marks)

Question 4

- a) Explain why it is essential to reduce the amount of entrapped air in a freshly laid concrete floor? (10 marks)
- b) With the aid of annotated diagrams, discuss three different types of shoring (15 marks)

Question 5

- a) Discuss the factors that should be taken into consideration when carrying out a demolition project in the city centre. (15 marks)
- b) Identify and explain any two methods of demolition (10 marks)

END OF EXAMINATION