

NATIONAL UNIVERSITY OF SCIENCE AND TECHNOLOGY
FACULTY OF THE BUILT ENVIRONMENT
DEPARTMENT OF QUANTITY SURVEYING
PART II SECOND SEMESTER EXAMINATION MAY 2013
BUILDING CONSTRUCTION III - AQS2201

Time: 3 hours

Total Marks: 100

Instructions to candidates

Answer any four questions

Question 1

- a) Identify and discuss the factors that should be considered in the design and selection of excavation support systems to deep excavations. **(15 marks)**

- b) Excavation support systems can be classified as permanent or temporary. Describe and illustrate TWO methods of permanent and TWO methods of temporary support. **(10 marks)**

Question 2

Illustrate and briefly describe three methods of basement waterproofing. **(25 marks)**

Question 3

With the aid of sketches, describe and demonstrate the purpose of Raking, flying and dead shoring **(25 marks)**

Question 4

- 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)**

Question 5

- a) Describe and demonstrate the purpose of underpinning. **(10 marks)**

- b) With the aid of sketches, demonstrate the two methods of pile underpinning. **(15 marks)**

END OF EXAMINATION