

**NATIONAL UNIVERSITY OF SCIENCE AND TECHNOLOGY**  
**FACULTY OF BUILT ENVIRONMENT**  
**DEPARTMENT OF QUANTITY SURVEYING**  
**PART II SUPPLEMENTARY EXAMINATIONS – AUGUST 2011**  
**MEASUREMENT II – AQS2208**

Time: 3 Hours

Total Marks: 100

**Instructions**

Answer all questions

Take off paper and SMM booklets to be provided.

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**QUESTION ONE**

Referring to attached drawings take off quantities for the following concrete works

- i) Concrete bases and foundation columns only including formwork & reinforcement **(15 marks)**
- ii) All Concrete slabs including formwork & reinforcement **(15marks)**
- iii) Concrete walls and columns including formwork & reinforcement **(20marks)**
- iv) All Concrete beams including formwork & reinforcement **(20marks)**

**Use the following data**

Concrete grade 30

Reinforcement      90kg/m<sup>3</sup> in column bases  
                             180kg/m<sup>3</sup> in columns  
                             110kg/m<sup>3</sup> in slabs  
                             200kg/m<sup>3</sup> in beams

Assumption on missing information should be clearly stated.

**QUESTION TWO**

- a) Prepare squaring for the measured works in question one **( 30 marks)**