

NATIONAL UNIVERSITY OF SCIENCE AND TECHNOLOGY

FACULTY OF BUILT ENVIRONMENT

BACHELOR OF QUANTITY SURVEYING

PART IV SUPPLEMENTARY EXAMINATIONS SEPTEMBER 2008

MEASUREMENT III – AQS 4107

TIME: 3 Hours

TOTAL MARKS: 100

INSTRUCTIONS:

Answer all questions

QUESTION 1

Measure cold and hot water supply using the attached drawings. *(50 marks)*

SECTION B

QUESTION 1

Calculate the volume of excavation for a basement formation whose depths of excavation is shown on the grid in **Fig 3**. *(10 marks)*

(10 marks)

QUESTION 2

Use Fig. 5 to answer question 2

The centre line of a proposed road of formation width 12,00m is to fall at a slope of 1 in 100 from chainage 0m to chainage 100m. The existing ground levels on the centre line at chainages 0m, 50m and 100m are 171.62m, 172.34m and 169.31m respectively and the ground slopes at 1 in 3 at right angles to the proposed centre line.

If the centre line formation level at chainage 0m is 171.22m and side slopes are to be 1 in 1 cut and 1 in 2 in fill, calculate the volumes of cut and fill between chainages 0m and 100m.

(25 marks)

QUESTION 3

Take off the structural steel quantities of the roof layout shown in figure S.1. Present the calculations in the form of a standard bill of quantities.

(15 marks)