

**MERU UNIVERSITY OF SCIENCE AND TECHNOLOGY**

**P.O. Box 972-60200 – Meru-Kenya.**

**Tel: 020-2069349, 061-2309217. 064-30320 Cell phone: +254 712524293, +254 789151411**

**Fax: 064-30321**

**Website:** [**www.must.ac.ke**](http://www.must.ac.ke) **Email:** [**info@must.ac.ke**](mailto:info@must.ac.ke)

**University Examinations 2015/2016**

THIRD YEAR, FIRST SEMESTER EXAMINATION FOR THE DIPLOMA IN CIVIL ENGINEERING

**ECV 2300: CIVIL ENGINEERING QUANTITIES I.**

**DATE: AUGUST 2016 TIME: 11/2 HOURS**

**INSTRUCTIONS: -** *Answer question* ***one*** *and any other* ***two*** *questions*

**QUESTION ONE (30 MARKS)**

Use the attached drawings to take off the following items in the substructure;

1. Trench excavations (5 marks)
2. Foundation concrete (5 marks)
3. Foundation walling (5 marks)
4. Hardcore filling (5 marks)
5. Murram blinding (2 marks)
6. Concrete bed, DPM and insecticide treatment (6 marks)
7. D.P.C (2 marks)

**QUESTION TWO (15 MARKS)**

1. Distinguish between SMM and CESMM in building and civil engineering works (7 marks)
2. Briefly describe four contract documents that may be used in building and civil engineering projects (8 marks)

**QUESTION THREE (15 MARKS)**

1. Define the term ‘Bill of Quantities’ (2 marks)
2. Outline four objectives of a bill of quantities (8 marks)
3. Outline the difference between elemental and trade by trade type of bill of quantities. (5 marks)

**QUESTION FOUR (20 MARKS)**

1. Outline the procedure used in the preparation of a bill of quantities (6 marks)
2. Explain the following terms as used in civil engineering quantities. (5 marks)
3. Provisional sums
4. Prime cost sums
5. Contingency sums
6. preambles
7. What are the duties of a Quantity Surveyor (QS) during the progress of works in a civil engineering project? (4 marks)