



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 Email: info@must.ac.ke

University Examinations 2013/2014

THIRD YEAR, FIRST SEMESTER EXAMINATION FOR DIPLOMA IN CIVIL
ENGINEERING

ECV 0241: CIVIL ENGINEERING QUANTITIES I

DATE: APRIL 2014

TIME: 1 ½ HOURS

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

QUESTION ONE – (30 MARKS)

Use the attached drawing to take off the following items in the substructures.

- (a) Bush clearance and topsoil excavations
- (b) Trench excavations
- (c) Foundation concrete
- (d) Foundation walling
- (e) Hardcore filling
- (f) Murram blinding
- (g) Concrete bed, DPM, BRC and insecticide treatment
- (h) DPC

QUESTION TWO – (15 MARKS)

- (a) Distinguish between SMM and CESMM in building and civil engineering works. (8 Marks)
- (b) Briefly describe four contract documents that may be used in building and civil engineering projects. (7 Marks)

QUESTION THREE – (15 MARKS)

- (a) Describe the following terms as applied in civil engineering quantities. (8 Marks)
- (i) Provisional sums
 - (ii) Prime cost sums
 - (iii) Contingency sums
 - (iv) Preambles
- (b) Why are substructures items considered provisional? (1 Mark)
- (c) Outline the difference between elemental and trade by trade type of bill of quantity. (6 Marks)

QUESTION FOUR – (15 MARKS)

- (a) Describe the procedure used in preparing a bill of quantity. (5 Marks)
- (b) Outline the purpose of bill of quantities in building and civil engineering projects. (5 Marks)
- (c) Explain the duties of the quantity surveyor during the progress of works. (5 Marks)