**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**

**University Examinations 2015/2016**

THIRD YEAR SECOND SEMESTER EXAMINATION FOR DIPLOMA IN CIVIL ENGINEERING

**ECV 2350: CIVIL ENGINEERING QUANTITITES II**

 **DATE: NOVEMBER 2015 TIME: 11/2 HOURS**

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

**QUESTION ONE (30 MARKS)**

A section plan of house 8.00 by 6.00 and a depth 900 mm by 750 mm as shown on the advanced drawing is partitioned at the centre with an internal wall 750 mm by 450 mm as shown on section R-B upto DPC level. Prepare a taking off list of the substructure items to be used ranging from bush clearing to DPC. (30 Marks)

**QUESTION TWO (15 MARKS)**

1. Abstract items in 1 above.
2. Prepare a direct billing sheet of the above items. (15 Marks)

**QUESTION THREE (15 MARKS)**

Using the data given below, build up a unit rate for mass concrete (1:2:6) in 450 mm bed per m2 in 10.00 by 6.00.

* Ballast Density 1600kg/m3
* Cement Density 1400kg/m3
* Sand Density 1600kg/m3
* 50 kg bag cement Shs.1000.00
* Sand per tonne Shs.2000.00
* Ballast per tonne Shs.2000.00
* 200 litre capacity

 mixer hire rate. Shs. 500 per hour (15 Marks)

**QUESTION FOUR (15 MARKS)**

Using neat sketches illustrate and define the following terms as used in staircase measurements with a simple drawing (104”) height building showing each.

Head room

Run

Rise

Width (15 Marks)