



## 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 SECOND SEMESTER EXAMINATION  
FOR DIPLOMA IN  
CIVIL ENGINEERING

**ECV 2350: CIVIL ENGINEERING QUANTITIES II**

**DATE: APRIL 2016**

**TIME: 1 ½ HOURS**

---

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

---

#### **QUESTION ONE (30 MARKS)**

Use the attached drawing to:

- (i) Take off all quantities
- (ii) Abstract quantities
- (iii) Prepare a bill of quantities (BQ) of all the substructure shown upto and including D.Pc.

Assume your own rates for the bill of quantities. (30 marks)

#### **QUESTION TWO (15 MARKS)**

The 'unit rates' in a bill of quantities submitted by contractors while bidding for tenders may vary widely.

- (i) What are these unit rates? (1 mark)
- (ii) Explain SEVEN possible causes of the variation or disparity (14 marks)

#### **QUESTION THREE (15 MARKS)**

- a) Explain two objectives of approximate estimating for each of the following:

- (i) The client
  - (ii) The Architect (8 marks)
- b) Explain why two methods of tendering for civil engineering works (7 marks)

**QUESTION FOUR (15 MARKS)**

Explain the duties and responsibilities of the following parties in a building and civil engineering contract:

- (i) The client
- (ii) The architect
- (iii) The structural engineer
- (iv) The contractor
- (v) The local authority (15 marks)