



TECHNICAL UNIVERSITY OF MOMBASA
**Faculty of Engineering &
Technology**

DEPARTMENT OF BUILDING & CIVIL ENGINEERING
DIPLOMA IN BUILDING & CIVIL ENGINEERING

ECV 2302: MEASUREMENT OF CIVIL ENGINEERING WORKS

END OF SEMESTER EXAMINATION

SERIES: APRIL 2015

TIME ALLOWED: 2 HOURS

Instructions to Candidates:

You should have the following for this examination

- *Answer Booklet*
- *Pocket Calculator*
- *Dimension Papers*
- *S.m.m for Civil Engineering Works*

This paper consists of **FIVE** questions. Answer any **THREE** questions of the **FIVE** questions
Maximum marks for each part of a question are as shown

Use neat, large and well labeled diagrams where required
This paper consists of **TWO** printed pages

Question One

Take off all quantities for the site clearance works shown in drawing No. 01 **(20 marks)**

Question Two

Take off all quantities for the retaining of wall shown in drawing No. 02 **(20 marks)**

Question Three

Take off all quantities for the Jetty shown in drawing No. 03 **(20 marks)**

Question Four

- a) Outline the requirements of a contract **(5 marks)**
- b) Describe the following types of contracts:
 - (i) Bill of quantities contract
 - (ii) Cost plus fixed fee contract
 - (iii) Cost plus variable fee contract
 - (iv) Cost plus percentage contract
 - (v) Design and build contract **(15 marks)**

Question Five

- a) Describe the following contract documents:
 - (i) Drawings
 - (ii) Tender form
 - (iii) Specifications **(9 marks)**
- b) Describe the duties of a quantity surveyor in a project **(5 marks)**
- c) Describe the following terms used in measurement:
 - (i) Variations
 - (ii) Nominated subcontractor
 - (iii) Provisional sums
 - (iv) Prime cost sums **(6 marks)**