



THE MOMBASA POLYTECHNIC UNIVERSITY COLLEGE

(A Constituent College of JKUAT)
Faculty of Engineering and Technology

DEPARTMENT OF BUILDING AND CIVIL ENGINEERING
DIPLOMA IN BUILDING & CIVIL ENGINEERING (DBC 10A)

DIPLOMA IN ARCHITECTURE (DA 10A)

EBC 2310: MEASUREMENT OF BUILDING WORKS II

END OF SEMESTER EXAMINATION

SERIES: DECEMBER 2011

TIME: 2 HOURS

Instructions to Candidates:

You should have the following for this examination

- *Answer Booklet*
- *Pocket calculator*
- *Dimension papers*
- *A copy of the Standard Method of Measurement of Building Works (SMM)*

This paper consists of **FIVE** questions in two sections **A & B**

Answer question **ONE (COMPULSORY)** and any other **TWO** questions.

Maximum marks for each part of a question are clearly shown

This paper consists of **TWO** printed pages
SECTION A (COMPULSORY)

Question 1(30 marks)

Take off all quantities for the site clearance and demolition works shown in drawing no. 01D.
(Use SMM) (30 marks)

SECTION B (Answer any TWO questions from this section)

Question 2 (20 marks)

Take off all quantities for the Flat roof works shown in drawing no 02D. Excluding formwork, reinforcement and finishes (20 marks)

Question 3 (20 marks)

Drawing no. 03D shows the plan of residential house, indicating finishes for each room. Take off all quantities for the floor and ceiling finishes (20 marks)

Question 4 (20 marks)

The table below shows a Bar Bending Schedule for the reinforcement to foundation bases and columns for a multi-storey building

Take off all the quantities for the reinforcement (20 marks)

| Ref | Type | Location | Length | No. per unit | No. of units |
|-----|------|----------------------|--------|--------------|--------------|
| BIB | Y16 | Column base 1 bottom | 1248 | 5 | 14 |
| BIT | Y12 | Column base 1 top | 1176 | 6 | 14 |
| B2B | Y12 | Column base 2 bottom | 1036 | 4 | 6 |
| B2T | Y10 | Column base 2 top | 1000 | 5 | 6 |
| C1M | Y8 | Column base 1 rings | 1224 | 12 | 14 |
| C2M | Y12 | Column 2 main bars | 1860 | 4 | 6 |
| C2R | R6 | Column 2 rings | 988 | 10 | 6 |

All high tensile steel reinforcement to BS 4461 and all mild steel bars to BS 4449.

Question 5 (20 marks)

Take off all quantities for the formwork and finishes for the Flat roof shown in drawing no. 02D. referred in question no. 2 above (20 marks)