



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

DEPARTMENT OF BUILDING & CIVIL ENGINEERING
HIGHER DIPLOMA IN BUILDING & CIVIL ENGINEERING (HDBCE)

EBC 3322: MEASUREMENTS OF BUILDING WORKS

SPECIAL/SUPPLEMENTARY EXAMINATION

SERIES: OCTOBER 2013

TIME ALLOWED: 2 HOURS

Instructions to Candidates:

You should have the following for this examination

- *Answer Booklet*

This paper consists of **FIVE** questions.

Answer any **THREE** questions

Maximum marks for each part of a question are as shown

This paper consists of **TWO** printed pages

Question One

a) Describe the following contract documents:

- (i) Bills of quantities
- (ii) Specifications
- (iii) General conditions of contracts
- (iv) Form of agreement
- (v) Form of tender **(10 marks)**

b) (I) Outline **FOUR** purposes of the bills of quantities **(4 marks)**

(II) Describe the following types of bills of quantities

- (i) Elemental
- (ii) Operational
- (iii) Traditional **(6 marks)**

(III) Briefly explain the following types of contracts:

- (i) Lump sum contracts
- (ii) schedule contracts
- (iii) All-in contracts
- (iv) Target Contracts **(10 marks)**

Question Two

Take off all quantities off the flat roof shown in drawing No. 01 **(20 marks)**

Question Three

Take off all quantities for the timber casement window shown in drawing No. 02 including all adjustments **(20 marks)**

Question Four

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

Question Five

Take off all quantities for the finishes shown in drawing No. 04 **(20 marks)**