



THE MOMBASA POLYTECHNIC UNIVERSITY COLLEGE

((A Constituent College of JKUAT)

(A Centre of Excellence)

**Faculty of Engineering
& Technology in Conjunction with
Kenya Institute of Highways and
Building & Technology (KIHBT)**

DEPARTMENT OF BUILDING & CIVIL ENGINEERING

DIPLOMA IN BUILDING & CIVIL ENGINEERING

EBE 3211: ESTIMATING & COSTING I

END OF SEMESTER EXAMINATION

SERIES: AUGUST 2012

TIME: 2 HOURS

Instructions to Candidates:

You should have the following for this examination

- *Answer Booklet*
- *Pocket Calculator*

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

Answer question **ONE** and any other **TWO** questions

Maximum marks for each part of a question are as shown

This paper consists of **TWO** printed pages

SECTION A (COMPULSORY – 30 MARKS)

Question One (20 Marks)

- a) Describe in details the following terms used in estimating and costing:
- i) All-in-labour rate
 - ii) Labour constants (10 marks)
- b) In relation to building up of prices for construction works explain **FIVE** aspects of a site that affect the cost of project. (20 marks)

SECTION B (Attempt any TWO questions)

Question Two (20 marks)

- a) Briefly explain why cost control is important in a building project. (7 marks)
- b) State **SIX** roles of an estimator employed by a contractor. (3 marks)
- c) In reference to work measurement explain **FIVE** situations that would qualify a contractor to be reimbursed by the employer for ‘loss and expenses caused by disturbance of regular process of work’ as provided for in building contracts. (10 marks)

Question Three (20 marks)

- a) State the details that should be recorded on a day work sheet. (3 marks)
- b) Briefly describe **FOUR** methods used in valuing variations in construction work. (7 marks)
- c) Explain **SEVEN** reasons why care must be exercised when using previously priced bills of quantities are used as a source of cost information. (10 marks)

Question Four (20 marks)

- a) Describe in details **FIVE** types of waste that an estimator should take into account when building up of unit rates. (10 marks)
- b) Explain **FIVE** reasons why different contractors give different bill rates for the same work. (10 marks)

Question Five (20 marks)

With the aid of sketches, briefly explain how the following design variables affect the cost of a project:-

- a) Plan shape (5 marks)
- b) Size of the building (5 marks)
- c) Wall to floor area ratio (5 marks)
- d) Storey heights (5 marks)