



THE MOMBASA POLYTECHNIC UNIVERSITY COLLEGE

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

DEPARTMENT OF BUILDING AND CIVIL ENGINEERING

Institutional Based Programme

DIPLOMA IN BUILDING & CIVIL ENGINEERING

EBC 2218: MEASUREMENT OF BUILDING WORKS I

END OF SEMESTER EXAMINATION

SERIES: APRIL 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

Answer any **THREE** questions

Maximum marks for each part of a question are clearly shown

This paper consists of **THREE** printed pages

Question 1 (20 marks)

- a) Outline the duties of the following personnel in a project
- (i) Quantity Surveyor
 - (ii) Architect
- (10 marks)
- b) Describe the operations carried out on a dimension paper (6 marks)
- c) Describe the term “taking off” (4 marks)

Question 2 (20 marks)

- a) Outline the process of bill preparation (10 marks)
- b) Describe the following contract documents
- (i) Contract drawings
 - (ii) Bill of quantities
 - (iii) Specification
 - (iv) Forms of tender
 - (v) Article of agreement
- (10 marks)

Question 3 (20 marks)

- a) Briefly describe the following tendering methods, giving one merit and one demerit of each method
- (i) Open tendering
 - (ii) Selective tendering
 - (iii) Negotiated tendering
 - (iv) Serial tendering
- (16 marks)
- b) Determine the girth of the building shown in figure 1. Thickness of wall is 200mm (4 marks)

Question 4 (20 marks)

- a) Explain the following terms:
 - (i) Prime cost sums
 - (ii) Provisional sum
 - (iii) Contingency sum

(9 marks)

- b) Briefly describe the following types of contracts
 - (i) Cost plus fixed fee contracts
 - (ii) Cost plus percentage fee contracts
 - (iii) Lump sum contract.

(9 marks)

- c) Define the term ‘preambles’

(2 marks)

Question 5 (20 marks)

- a) Explain the following payment certificates
 - (i) Interim certificates
 - (ii) Penultimate certificate
 - (iii) Final certificate

(9 marks)

- b) Explain the following terms.
 - (i) Variation
 - (ii) Valuation of variation

(6 marks)

- c) A rulling of a bill of quantities is shown in figure 2. Name the columns

(5 marks)

1	2	3	4	5	6
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