



# THE MOMBASA POLYTECHNIC UNIVERSITY COLLEGE

(A Constituent College of JKUAT)

(A Centre of Excellence)

## Faculty of Engineering & Technology

DEPARTMENT OF BUILDING & CIVIL ENGINEERING

**UNIVERSITY EXAMINATION FOR:**  
BACHELOR OF SCIENCE CIVIL ENGINEERING  
(BSCE YV, SII)

ECE 2511: CIVIL ENGINEERING PRACTICE

**END OF SEMESTER EXAMINATION**

**SERIES: DECEMBER 2012**

**TIME: 2 HOURS**

### Instructions to Candidates:

You should have the following for this examination

- Answer Booklet
- Extract of CESMM Booklet

This paper consists of **FIVE** questions.

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

Maximum marks for each part of a question are as shown

This paper consists of **THREE** printed pages

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### Question One (Compulsory)

- a) What is a bond or a guarantee? Illustrate this by a short example showing who is the principle debtor, the beneficiary and the bonds man, surety or guarantor. **(4 ½ marks)**
- b) Briefly explain the following types of bonds:
- (i) Tender/Bid bond
  - (ii) Performance bond
  - (iii) Maintenance bond
  - (iv) Retention bond
- (6 marks)**

- c) Whenever a breach of contract arises, a right of action exists in the courts to remedy the matter. Briefly explain each remedy available. **(7 ½ marks)**
- d) Define the following terms in Arbitration Umpire, Reference, Award, Respondent, Claimant, Expert witness **(12 marks)**

### Question Two

- a) (i) Arbitration is an alternative to legal action in the courts in order to settle an unresolved construction dispute.
- (ii) What can parties not do in relation to courts of law, once arbitration method is agreed upon?
- (iii) What advantages make arbitration the best method of dispute resolution in construction contracts? **(7 marks)**
- b) Discuss “pleadings” in Arbitration. **(3 marks)**
- c) Discuss how an award from an Arbitration can be declared “unworkable” by the high court. **(4 marks)**
- d) What do you understand by the following:
- (i) Costs follow the event
  - (ii) Duress
  - (iii) Contract consideration
  - (iv) Frustrated contract
- (6 marks)**

### Question Three

- a) (i) Compare the Civil Engineering and Building Methods of Measurement.
- (ii) When would both methods be used in sample project? Explain using an example. **(10 marks)**
- b) In relation to a civil engineering Bill of Quantities, discuss the following terms:
- (i) Preamble
  - (ii) Provisional sums
  - (iii) Prime cost sums
  - (iv) Day work schedule
  - (v) Grand summary
- (10 marks)**

### Question Four

- a) Draw a sketch showing the levels of communication in contract administration under FIDIC/ICE conditions of contract. **(3 marks)**
- b) Summarize Risk Allocation to parties in the contract in accordance to FIDIC/ICE conditions of contract. **(2 marks)**

- c) In the Basic Organization of the contract under the FIDIC/ICE conditions of contract, briefly explain the roles of the following:
- (i) Employer
  - (ii) Contractor
  - (iii) Engineer
  - (iv) Engineer's Representative
- (16 marks)**

**Question Five**

With reference to the drawing shown in figure 01, take off quantities for all the work for site clearance and substructures up to and including the damp proof course.

**(20 marks)**