



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

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)