



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

DEPARTMENT OF BUILDING & CIVIL ENGINEERING

UNIVERSITY EXAMINATION FOR:  
**BACHELOR OF SCIENCE IN CIVIL ENGINEERING**

ECE 2511: CIVIL ENGINEERING PRACTICE

**END OF SEMESTER EXAMINATION**

SERIES: DECEMBER 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 question **ONE (Compulsory)** and any **TWO** questions

Maximum marks for each part of a question are as shown

This paper consists of **TWO** printed pages

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**Question One (Compulsory)**

- a) Discuss a bond or guarantee through a short example which will show who is the principal debtor, the beneficiary and the bonds man, surety or guarantor. **(5marks)**
- b) (i) What is the primary function of construction insurance?  
(ii) Explain liability (legal fault) generated risks and give examples **(6 marks)**
- c) When a breach of contract arises a right of action exists in courts to remedy the matter. Briefly explain each remedy available. **(7 marks)**
- d) The following terminologies are commonly used in arbitration. Define them:
- (i) Arbitrator
  - (ii) Reference
  - (iii) Award
  - (iv) Respondent

- (v) Claimant
  - (vi) Expert witness
- (12 marks)**

### **Question Two**

- a) Discuss “pleadings” in Arbitrator **(3 marks)**
- b) Discuss how an award from an arbitrator can be declared “unworkable” by the high court **(5 marks)**
- c) Arbitration is said to have advantage over court action. Compare the two: **(12 marks)**

### **Question Three**

- a) FIDIC AND ICE conditions of contract cover possible disputes that might arise. List FIVE instances where disputes may arise **(3 marks)**
- b) Construction disputes, can also rise because of the engineer’s action. List FIVE actions by the engineer that can lead to this. **(3 marks)**
- c) (i) List the documents that collectively constitute the contract documents **(6 marks)**  
(ii) Discuss the form and purpose of contract documents **(8 marks)**

### **Question Four**

- a) Under the FIDIC AND ICE conditions of contract, the levels of communication in the contract administration can be shown diagrammatically, Sketch these levels and clearly show how they are connected. **(3 marks)**
- b) In accordance to FIDIC/ICE conditions of contract summarize RISK ALLOCATION to parties in the contract. **(3 marks)**
- c) Under the FIDIC/ICE conditions of contract the Employer, contractor, Engineer and Engineers’ Representative each has a role: Briefly explain the role of each party. **(14 marks)**

### **Question Five**

- a) Outline the matters that may be included in a variation order **(5 marks)**
- b) Describe a Bill of Quantities and state its purpose **(5 marks)**
- c) Explain the term provisional sum as used in civil engineering contracts **(3 marks)**
- d) State the issues that need to be resolved to minimize disputes in construction projects **(4 marks)**
- e) State the common causes of claims in Civil Engineering Projects **(3 marks)**