



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

DEPARTMENT OF BUILDING & CIVIL ENGINEERING

UNIVERSITY EXAMINATION FOR DECREE IN:

**BACHELOR OF SCIENCE IN CIVIL ENGINEERING (BSCE)**

ECE 2511: CIVIL ENGINEERING PRACTICE

**END OF SEMESTER EXAMINATION**

SERIES: APRIL 2015

**TIME ALLOWED: 2 HOURS**

**Instructions to Candidates:**

You should have the following for this examination

- Answer Booklet
- Pocket Calculator

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

Use neat, large and well labeled diagrams where required

This paper consists of **TWO** printed pages

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**Question One (Compulsory)**

a) State any **SIX** rules of the following essential elements of a valid simple contract:

- (i) Offer
- (ii) Acceptance
- (iii) Consideration

**(9 marks)**

b) For each of the following vitiating factors to a simple contract, give **ONE** example and state the effect each would have on the validity of the contract:

- (i) Mistake as to the existence of the subject matter
- (ii) Misrepresentation
- (iii) Duress
- (iv) Undue influence

**(5 marks)**

c) State any **FOUR** contract documents used in Civil Engineering contracts and give the purpose of each  
**(6 marks)**

d) (i) Define a bond

(ii) Describe any FOUR types of bonds used in Civil Engineering contracts **(10 marks)**

### Question Two

- a) Define the following terms:  
(i) Claim and state its causes  
(ii) Arbitration and state any FOUR advantages and disadvantages of Arbitration respectively **(14 marks)**
- b) Describe the procedure of appointment of a sole Arbitrator by Agreement **(6 marks)**

### Question Three

- a) Explain the following types of contracts and state ONE, application, advantage and disadvantage of each respectively.  
(i) Bill of Quantities contract  
(ii) Lump sum contract  
(iii) Cost plus fixed fee contract  
(iv) Cost plus variable fee contract **(14 marks)**
- b) Explain any FOUR remedies available for breach of contract **(6 marks)**

### Question Four

- a) Explain briefly the differences between the Bills of Quantities for Civil Engineering and Building Works respectively **(6 marks)**
- b) Explain the following terms as used in Civil Engineering contracts:  
(i) Provisional sum  
(ii) Prime cost sum  
(iii) Daywork and daywork schedule  
(iv) Interim payment certificate **(14 marks)**

### Question Five

- a) Outline the functions of specifications in Civil Engineering contracts **(5 marks)**
- b) Write brief specifications for the following civil engineering materials:  
(i) Cement  
(ii) Coarse Aggregates  
(iii) Fine Aggregates **(15 marks)**