



**MASINDE MULIRO UNIVERSITY OF  
SCIENCE AND TECHNOLOGY  
(MMUST)**

**MAIN CAMPUS**

**UNIVERSITY EXAMINATIONS  
2019/2020 ACADEMIC YEAR**

**FOURTH YEAR SEMESTER ONE  
SPECIAL AND SUPPLEMENTARY EXAMINATIONS**

**FOR THE DEGREE  
OF  
BACHELOR OF TECHNOLOGY EDUCATION IN BUILDING  
AND CIVIL TECHNOLOGY**

**COURSE CODE: TEB 461**

**COURSE TITLE: CONSTRUCTION MANAGEMENT**

**DATE: FRIDAY 29<sup>TH</sup> JANUARY 2021 TIME: 11.00 AM – 1.00 PM**

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**INSTRUCTIONS:**

1. This paper contains **FOUR** questions
2. Answer question **ONE** (compulsory) and any other **TWO** question
3. Marks for each question are indicated in the parenthesis.
4. Examination duration is **2 Hour**

MMUST observes **ZERO** tolerance to examination cheating

This Paper Consists of 2 Printed Pages. Please Turn Over.

**Answer Question 1 and any other two questions.**

**QUESTION 1 (30 Marks)**

- (a) State the main agencies involved in the construction industry. Discuss the role played by each. (8 marks)
- (b) Outline the core functions of project management. (10 marks)
- (c) What are the main contract documents applied in civil engineering contracts? (7 marks)
- (d) With the aid of a neat sketch discuss the various phases of a project life cycle. (6 marks)

**QUESTION 2 (20 Marks)**

- (a) Discuss FIVE contract methods used in the implementation of civil engineering projects. (10 marks)
- (b) Outline the tendering procedures followed in the execution of civil engineering projects. (4 marks)
- (c) What is stock taking? Explain the process of stock taking. (6 marks)

**QUESTION 3(20 Marks)**

- (a) Explain the significance of Surety bond and Performance bond in a construction contract. (6 marks)
- (b) What is the role of the following staff in a construction project?  
(i) Project manager  
(ii) Site agent  
(iii) Clerk of Works  
(iv) General Foreman (8 marks)
- (c) Explain the following accounting terms:  
(i) Equities  
(ii) Liabilities  
(iii) Balance sheet (6 marks)

**QUESTION 4 (20 Marks)**

- (a) What are preliminary items in a Bill of Quantities? Give examples of such items. (6 marks)
- (b) Differentiate between Prime Cost sum and Provisional sum in a Bill of Quantities? (4 marks)
- (c) From the following bill item for the construction of a new tuition block in MMUST, compute the unit rate. *“Excavate to reduced levels average th. 150mm and cart away to a distance not exceeding 100m from site”*  
Make the following assumptions: Capacity of tractor shovel= 10m<sup>3</sup>, Allowance for bulking = 25%, Round trip time for tractor shovel = 10 min and Cost of tractor shovel per hour = Kshs.4,000/=. Make any other suitable assumptions. (10 marks)
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