



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

**UNIVERSITY EXAMINATIONS
2019/2020 ACADEMIC YEAR**

FOURTH YEAR FIRST SEMESTER EXAMINATIONS

**FOR THE DEGREE OF
BACHELOR OF SCIENCE IN CIVIL AND STRUCTURAL
ENGINEERING AND BACHELOR OF TECHNOLOGY
EDUCATION – BUILDING AND CIVIL TECHNOLOGY**

COURSE CODE: CSE 461 / TEB 461

COURSE TITLE: CONSTRUCTION MANAGEMENT

DATE: WEDNESDAY 22ND JANUARY 2020 TIME: 12.00 – 2.00 PM

INSTRUCTIONS:

1. Answer Question 1 and any other Two questions.
2. Provide neat sketches and diagrams where required.

MMUST observes ZERO tolerance to examination cheating

This Paper Consists of 3 Printed Pages. Please Turn Over →

SECTION 1: Answer question 1 Compulsory (30 Marks)**QUESTION 1**

(a) Explain the term 'Project management'. Discuss the core functions of project management. (12 marks)

(b) In construction management, teams are generally regarded as being the optimum way to manage a project.

(i) Discuss why teams are regarded as being the "best" management strategy. (4 marks)

(ii) What factors make successful teams? (4 marks)

(c) Quality control is important to ensure the success of a construction project. Discuss the importance of implementing quality audit for a civil infrastructure project. (10 marks)

SECTION 2: Answer any TWO questions (20 Marks each)**QUESTION 2**

(a) State and explain the main contract documents applied in civil engineering contracts. (8 marks)

(b) Discuss FIVE contract methods used in the implementation of civil engineering projects. (10 marks)

(c) What is the purpose of an arbitration court? (2 marks)

QUESTION 3

(a) Describe the tendering procedures followed in the execution of civil engineering projects. (5 marks)

(b) What are preliminary items in a Bill of Quantities? Give examples of such items. (5 marks)

(c) From the following bill item compute the unit rate.

'Excavate top soil to reduced levels average thickness 150mm and cart away to a distance not exceeding 500m from site'

Assume the following:

- Capacity of tractor scrapper = 10m³
- Allowance for bulking of soil = 25%
- Round trip time for scrapper = 15 min.
- Cost of scrapper per hour = Kshs.5,000/= (Wet Rate)
- Cost of operator per day = Kshs.1000/- per day
- Cost of banksman = Kshs.350/- per day (10 marks)

QUESTION 4

(a) Analyze the main skills that a project manager requires to successfully manage a Construction Project. *(4 marks)*

(b) Explain the duties of the following staff in a construction project?

- (i) Resident Engineer
- (ii) Clerk of works
- (iii) Site Agent
- (iv) General Foreman

(8 marks)

(c) Discuss the following accounting terms:

- (i) Equities
- (ii) Liabilities
- (iii) Capital
- (iv) Balance sheet

(8 marks)
