



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

**MAIN CAMPUS**

**UNIVERSITY MAIN EXAMINATIONS**

**2018/2019 ACADEMIC YEAR**

**THIRD YEAR FIRST SEMESTER EXAMINATION**

**FOR THE UNIVERSITY DIPLOMA**

**IN**

**CIVIL ENGINEERING**

**COURSE CODE: DCE 089E**

**COURSE TITLE: CONSTRUCTION PLANNING AND  
MANAGEMENT**

**DATE: FRIDAY 1ST FEBRUARY 2019 TIME: 9.00AM – 11.00AM**

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**INSTRUCTIONS:**

1. This paper contains **FIVE** questions
2. Answer any **THREE** questions
3. Marks for each question are indicated in the parenthesis.
4. Examination duration is **2 Hours**

MMUST observes ZERO tolerance to examination cheating

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

**Answer any three questions**

**Question One (20 MARKS)**

- a) You are the project manager of a civil engineering organization that has won a tender of constructing a pipeline from Mombasa to Kisumu. The works involve construction of pumping stations and manholes in all concrete works along the pipeline. Discuss **FIVE** factors you would consider when selecting the mode of transporting concrete. (10 Marks)
- b) Outline **FIVE** unethical behaviours that tenderers engage in causing uncompetitive sourcing. (5 Marks)
- c) Explain briefly **FIVE** documents required during tendering process. (5 Marks)

**Question Two (20 MARKS)**

- a) Briefly explain **FOUR** types of costs involved in material management. (8 Marks)
- b) Explain **SEVEN** factors that affect job- site productivity. (7 Marks)
- c) Briefly explain **FIVE** statutory deductions to employee's income. (5 Marks)

**Question Three (20 MARKS)**

- a) Explain **FIVE** employee rights as outlined in the employment act (10Marks)
- b) Explain **FIVE** roles of Local/County governments in executing civil engineering contracts. (10 Marks)

**Question Four (20 MARKS)**

- a) Discuss **FIVE** non- financial incentive schemes. (10 Marks)
- b) A contract programme can be in the form of Bar chart, Critical path or Line of balance. Explain **FIVE** essential characteristics of a good plan (10 Marks)

**Question Five (20 MARKS)**

- a) Explain **FIVE** documents that are required to form part of contracts (10 Marks)
- b) Briefly explain the term "**Span of control**" and explain the effects of a large span of control (10 Marks)