



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

MAIN CAMPUS

**UNIVERSITY REGULAR EXAMINATIONS
2021/2022 ACADEMIC YEAR**

FOURTH YEAR FIRST SEMESTER EXAMINATIONS

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

COURSE CODE: TEB 463

COURSE TITLE: QUANTITY SURVEYING I

DATE: WEDNESDAY 27TH APRIL 2022 TIME: 3.00 – 5.00 PM

INSTRUCTIONS:

1. This paper contains **FIVE** questions.
2. Answer Question **ONE** and any **TWO** Questions.
3. Marks for each question are indicated in the parenthesis.
4. State clearly any engineering assumptions where necessary.
5. Examination duration is **2 Hours**.

MMUST observes **ZERO** tolerance to examination cheating

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

QUESTION ONE

- a) Define the term Quantity Surveying (2 marks)
- b) Outline any FOUR roles of a quantity surveyor (4 marks)
- c) Explain the following contract documents used in civil engineering construction
 - (i) Defects liability period (2 marks)
 - (ii) Variations (2 marks)
 - (iii) Bond (2 marks)
- d) Outline any FOUR advantages of unit cost contract in quantity survey (4 marks)
- e) Outline any FOUR factors to consider while taking the decision to tender (4 marks)
- f) Outline any Four qualities of a good quantity surveyor (2 marks)
- g) Invitation to tender usually follows the design stage in tendering process. Identify and explain any THREE documents that may accompany an invitation to tender notice or advert (3 marks)
- h) Outline any THREE types of specifications (3 marks)
- i) Explain the term clarification as used in tendering (2 marks)

QUESTION TWO

- a) Explain any FOUR reasons why specifications are important in quantity survey (8 marks)
- b) In response to an invitation to tender, invited tenderers will submit their tenders to the tendering organization for subsequent evaluation and award. Identify any THREE documents that may be submitted to the organization explaining the roles of each document (6 marks)
- c) Discuss any THREE types of construction costs in quantity survey (6 marks)

QUESTION THREE

- a) Explain the significance of the letter of acceptance offered by the client to the contractor (2 marks)
- b) Differentiate between the following types of tenders;
 - (i). Open tendering and selective tendering (2 marks)
 - (ii). Negotiated tendering and package deal tendering (2 marks)
- c) Explain any FOUR factors affecting the cost of civil engineering projects (8 marks)
- d) Explain any THREE types of data required to approximate the cost of a reinforced concrete beam (6 marks)

QUESTION FOUR

- a) Identify any THREE standard terms that may be contained under the general conditions of contract (3 marks)

- b) Identify any FOUR Technical specifications that may be contained in the Bill of quantities for a three story building foundation (4 marks)
- c) Differentiate between the following types of contracts as applied in construction management
- i. Lump sum construction contract and Unit price construction contract (4 marks)
 - ii. Cost Plus construction contract and Target Cost construction contract (4 marks)
- d) Explain any FIVE roles of an engineer in administration of contracts (5 marks)

QUESTION FIVE

- a) Define Bill of Quantities as applied in quantity survey (2 marks)
- b) Define the following terms used in preparation of Bill of Quantities:
- i. Taking off (2 marks)
 - ii. Squaring the dimensions (2 marks)
 - iii. Abstracting (2 marks)
 - iv. Billing (2 marks)
- c) Outline any FOUR components of a Bill of Quantities (4 marks)
- d) Explain the role of completion certificate in contract administration (3 marks)
- e) Identify any THREE causes of conflict in contract between the client and contractor in during construction (3 marks)