



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

MAIN CAMPUS

**UNIVERSITY EXAMINATIONS
2022/2023 ACADEMIC YEAR**

FIRST YEAR SEMESTER ONE EXAMINATIONS

**FOR THE DEGREE
OF
BACHELOR OF TECHNOLOGY IN BUILDING CONSTRUCTION)**

COURSE CODE: BTB 103

COURSE TITLE: INTRODUCTION TO BUILDING TECHNOLOGY

DATE: 16TH DECEMBER 2022

TIME: 3-5 P.M

INSTRUCTIONS:

1. This paper contains FIVE questions
2. QUESTION ONE IS COMPULSORY
3. Attempt any other THREE questions
4. Marks for each question are indicated in the parenthesis.

Examination duration is **2 Hours**

MMUST observes ZERO tolerance to examination cheating

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

QUESTIONS: Answer question 1 and any other THREE questions

1. (a) Discuss how engineering and technology development has evolved from a historical point of view. *(10 marks)*
(b) Explain the purpose of formwork in buildings. What are the requirements of a good formwork? *(10 marks)*
(c) State the key players forming a building team. Explain the role of each. *(5 marks)*
2. (a) List any TEN commonly used building materials in Kenya citing their principal applications. *(5 marks)*
(b) Discuss the ingredients constituting concrete and their functions. *(7 marks)*
(c) What are the properties of good mortar? *(3 marks)*
3. (a) State the various functions of buildings as an integrated system. *(5 marks)*
(b) Explain the importance of the building code and other standards applied in the building industry. *(5 marks)*
(c) What measures should be taken to ensure safety of workers on site? *(5 marks)*
4. (a) State the different types of foundations applied in buildings. *(5 marks)*
(b) Outline the tests carried out to determine the quality of fresh and hardened concrete. *(6 marks)*
(c) Explain the term 'Sustainable construction'. *(4 marks)*
5. (a) What is the purpose scaffolding in building construction? *(5 marks)*
(b) Explain the purpose of reinforcement bars (rebars) in concrete? *(5 marks)*
(c) Describe the terms 'mechanized construction' and 'labour-based construction'. *(5 marks)*

END