



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

MAIN CAMPUS

**UNIVERSITY EXAMINATIONS
2019/2020 ACADEMIC YEAR**

FIRST YEAR SECOND SEMESTER EXAMINATIONS

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

COURSE CODE: BTB 104

COURSE TITLE: BUILDING TECHNOLOGY I

DATE: TUESDAY 3RD NOVEMBER 2020 TIME: 9.00 – 11.00 AM

INSTRUCTIONS:

1. QUESTION ONE IS COMPULSORY
2. Attempt any other TWO questions
3. Marks for each question are indicated in the parenthesis.

Examination duration is **2 Hour**

MMUST observes ZERO tolerance to examination cheating

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

QUESTION ONE (COMPULSORY -40MKS)

- a) What is a building? Discuss its parts giving examples of elements in each part. (6mks)
- b) Discuss the owner as a party in a building project. (6mks)
- c) Describe site preparation operations of site clearance and site stripping (4mks)
- d) Why is site investigation necessary in building industry? (4mks)
- e) Give an account of test pits and auger boring methods of soil exploration (6mks)
- f) State the four systems of plumbing in a building? (4mks)
- g) Define the term foundation and state its objectives as applied in building construction (4mks)
- h) Describe the setting out procedure of a simple rectangular building using 3-4-5 method. Using neat sketches show how dimensions are transferred to the profile boards. (6mks)

Attempt ANY 2 Questions from this section (30MKS)**QUESTION TWO**

- a) Sketch a line diagram of a two-pipe system plumbing works and explain how it functions. (7mks)
- b) State the principles of drainage in a domestic housing setup (8mks)

QUESTION THREE

- a) Give an account of broad classification of roofs (3mks)
- b) Distinguish between the pillars and piers. With aid of sketches show how copping is done on pillars and piers. (5mks)
- c) With aid of sketches describe the following types of foundations
- i) Raft foundation (3mks)
 - ii) Pile foundation (2mks)
 - iii) Pad foundations (2mks)

QUESTION FOUR

- a) Define the term “a ceiling” and explain how it is constructed in a building (3mks)
- b) Use the sketches to describe the following types of upper floors and give a brief on how they are constructed.
- i) Single timber floor (3mks)
 - ii) Reinforced concrete floor (3mks)
- c) Illustrate the following types of roofs. Use sketches to illustrate your answer
- i) Lean to roof (2mks)
 - ii) Collar roof (2mks)
 - iii) Composite roof (2mks)