



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

**UNIVERSITY EXAMINATIONS
2022/2023 ACADEMIC YEAR**

THIRD YEAR SECOND SEMESTER EXAMINATIONS

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

COURSE CODE: TEB 312

**COURSE TITLE: CONSTRUCTION TECHNOLOGY AND
PRACTICE II**

DATE: 27TH APRIL 2023

TIME: 8 - 10 A.M

INSTRUCTIONS:

1. This paper consists of four questions.
2. Answer **Question 1** which is compulsory and any other **Two** questions.
3. Marks for each question are indicated on the parenthesis.
4. Provide neat sketches and diagrams where required.

MMUST observes ZERO tolerance to examination cheating

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

Question I (30 marks)

- (a) Describe the term 'Precast Concrete' giving clear examples of its application. State the advantages and disadvantages of using precast concrete. (10 marks)
- (b) Sketch and describe FIVE types of walls commonly used in building construction. (10 marks)
- (c) What is the importance of wall finishes? State FIVE types of wall finishes. (10 marks)

Question 2 (20 marks)

- (a). Outline using suitable sketches the following types of bonds applied in brick masonry:
- (i) Stretcher bond
 - (ii) Header bond
 - (iii) English bond
 - (iv) Flemish bond (8 marks)
- (b) What are retaining walls used for? Using neat diagrams discuss FOUR types of retaining walls. (10 marks)
- (c) Differentiate between active and passive earth pressures. (2 marks)

Question 3 (20 marks)

- (a) With the aid of neat illustrations describe THREE roofing types adopted for buildings in Kenya. (10 marks)
- (b) Outline the common types of ceilings available in the market citing their advantages. (5 marks)
- (c) Differentiate between a Lintel and an Arch as applied to buildings. (5 marks)

Question 4 (20 marks)

- (a) By the aid of a neat diagram depict the various components of a chimney. Explain the principal requirements of a fireplace and flue. (10 marks)
- (b) Outline the main components of a scaffold. Also state the factors considered during selection of the type of scaffold to be used in building works. (10 marks)
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