



(University of Choice)

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

MAIN CAMPUS

**UNIVERSITY EXAMINATIONS
2021/2022 ACADEMIC YEAR**

SECOND YEAR SECOND SEMESTER EXAMINATIONS

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

COURSE CODE: BTB 252

COURSE TITLE: WORKSHOP TECHNOLOGY

DATE: WEDNESDAY 27TH APRIL 2022 TIME: 12.00 – 2.00 PM

INSTRUCTIONS:

1. This paper contains FIVE Questions
2. Attempt Question ONE and any other three questions
3. Marks for each question are indicated in the parenthesis.
4. It is in the best interest of the student to write legibly
5. Examination duration is **2 Hours**

MMUST observes ZERO tolerance to examination cheating

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

Question 1 (14 marks)

- i). What is setting out in building? (1mk)
- ii). Outline the first five steps in order of how you would go ahead setting out a house using the pegging method. (5 mks)
- iii). Two important hand tools would be very useful during house setting: the claw hammer and the hand saw for cutting wood. Make neat diagram of each and state two safety precautions to observe when using each of them. (8mks)

Question 2 (12 marks)

- i). What do you understand by the term cement mortar (1 mk)
- ii). State one use of cement mortar (1mk)
- iii). You are asked to excavate a swimming pool pit of 60m long, 30m wide, 2m deep at the shallow end and 8m at the deep end.
 - a. Draw to illustrate the possible shape of this swimming pool. (4mks)
 - b. Calculate the excavation volume. (2mks)
 - c. Find all the total labour cost of excavating given that for every 200 kg of the soil of density 4.5kg/m^3 costs Ksh.50.00 (4mks)

Question 3 (12 marks)

- i). Draw a three dimensional diagram of an interlocking masonry brick pair to show their structural function when in use. (8 mks).
- ii). State two advantages of using these type of masonry interlocking bricks. (2mks)
- iii). Mention two advantages of using concrete blocks as house wall construction material. (2mks)

Question 4 (12 marks)

- i). Use a proportional drawing to illustrate any three hand tools used for stone dressing. (6mks)
- ii). Mention any one safety precautions to observe during use of each tool in i). above. (3mks).
- iii). Outline three reasons for plastering a wall. (3 mks)

Question 5 (12 mks)

- i). Define the term; timber seasoning. (1mk)
- ii). Use a labeled diagram to illustrate the difference between the two methods of timber seasoning. (4 mks).
- iii). State and use a neat sketch to show any four possible defects brought about by poor seasoning of timber. (4 mks)
- iv). Mention three uses of industrial timbers in Kenya. (3 mks)

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