



MACHAKOS UNIVERSITY

University Examinations for 2021/2022

SCHOOL OF ENGINEERING AND TECHNOLOGY
BUILDING AND CIVIL ENGINEERING DEPARTMENT
FIRST YEAR SEMESTER ONE EXAMINATION FOR
DIPLOMA IN BUILDING TECHNOLOGY MODULE 1
CONSTRUCTION MATERIALS

DATE: 30/11/2021

TIME: 2.30-5.30 PM

INSTRUCTIONS

1. This paper carries three questions
 2. Answer all the questions given
 3. All questions carry equal marks
 4. Marks for each question are clearly shown
-
1.
 - a) Define the term timber. (1 mark)
 - b) Briefly state the functions of the following parts of a tree.
 - i. Roots
 - ii. Trunk or stem
 - iii. Crown (6 marks)
 - c) Draw and label a cross-section of a tree trunk. (8 marks)
 - d) State five areas where tree products can be used. (5 marks)
 2.
 - a) Define the term timber conversion. (2 marks)
 - b) Name two Timber Defects which come as a result of;
 - i. Tree growth (2 marks)
 - ii. Timber seasoning (2 marks)
 - c) Differentiate between hard wood and soft wood. (6 marks)

- d) With the aid of a sketch, state three different methods used in timber conversion. (6 marks)
- e) List any two hard wood timber and state where they are commonly used in construction industry. (2 marks)
- 3. a) Define the term timber seasoning. (1 mark)
- b) Briefly discuss how you would carry out kiln seasoning. (8 marks)
- c) list any two advantages and two disadvantages of kiln seasoning. (4 marks)
- d) state any four factors that affect the rate of timber seasoning. (4 marks)
- e) Name and sketch one timber defects which occurs as a result of timber conversion. (3 marks)