



MACHAKOS UNIVERSITY

University Examinations for 2021/2022

SCHOOL OF ENGINEERING AND TECHNOLOGY

DEPARTMENT OF MECHANICAL AND MANUFACTURING ENGINEERING

FIRST YEAR FIRST SEMESTER EXAMINATION FOR

DIPLOMA IN BUILDING & CIVIL ENGINEERING-MODULE 1 SEP 2021

WORKSHOP TECHNOLOGY

DATE: 29/11/2021

TIME: 2.30-5.30 PM

INSTRUCTIONS

This paper consists of Five questions, attempt All.

1.
 - (a) State Five objectives of industrial safety. (5 marks)
 - (b) Outline any Five responsibilities of the employer and Five of employees under health and safety act. (10 marks)
 - (c) Highlight any **Five** general health and safety precautions. (5 marks)
2.
 - (a) Discuss Five classes of fire and give their extinguishing agents. (10 marks)
 - (b) Explain briefly Five types of personal protective equipment in regard to health and safety. (10 marks)
3.
 - (a) Describe the procedure of marking out a work piece (3 marks)
 - (b) Using neat sketches describe five common marking out tools. (10 marks)
 - (c) Briefly explain using sketches procedure pattern development to make a box of dimensions 200mm x 100mm x 100mm. (7 marks)
4.
 - a) Describe operation of the following measurement instruments;
 - i. Vernier caliper
 - ii. Combination set(10 marks)
 - b) Describe briefly Three methods of classifying files in bench work. (10 marks)

5. a) Highlight contents of the first aid kit (8 marks)
- b) Explain briefly first aid for the following, (12 marks)
- i. Fractures
 - ii. Bleeding control
 - iii. Electric shock
 - iv. Burn