



(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 DIPLOMA
IN
MECHANICAL ENGINEERING**

COURSE CODE: DME 064

COURSE TITLE: WORKSHOP TECHNOLOGY II

DATE: 29/04/2022

TIME: 12:00-2:00 PM

INSTRUCTIONS TO CANDIDATES

Answer question ONE and any other two questions

TIME: 2 Hours

MMUST observes ZERO tolerance to examination cheating

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

QUESTION ONE**(30 marks)**

- a) State and explain the **FIVE** main hazards in a workshop during arc welding **(5 marks)**
- b) With the aid of well labelled sketches explain **FIVE** welding defects and their causes **(10 marks)**
- c) Discuss the **THREE** main welding techniques. Draw neat sketches to elaborate **(9 marks)**
- d) Using well labelled diagrams explain **THREE** types of welded joints formed during welding. **(6 marks)**

QUESTION TWO**(20****marks)**

- a) Describe the oxy-acetylene gas welding process **(10 marks)**
- b) Discuss the flames produced during gas welding (Use neat sketches to elaborate). **(9 marks)**
- c) What is flame cutting **(1 mark)**

QUESTION THREE**(20 marks)**

- a) Differentiate between TIG and MIG **(5 marks)**
- b) Discuss spot welding as a pressure type welding process. **(5 marks)**
- c) Describe **TWO** methods used during inspection of defects in welds **(10 marks)**

QUESTION FOUR**(20 marks)**

- a) Differentiate between brazing and braze welding **(5 marks)**

- b) Describe the arc welding equipment and the function of each part of the equipment **(8 marks)**
- c) Explain how an arc is created between the electrode and the workpiece **(5 marks)**
- d) State TWO sources of power in arc welding **(2 marks)**

