



(University of Choice)

**MASINDE MULIRO UNIVERSITY OF
SCIENCE AND TECHNOLOGY**

(MMUST)

MAIN CAMPUS

UNIVERSITY EXAMINATIONS

2023/2024 ACADEMIC YEAR

THIRD YEAR FIRST SEMESTER EXAMINATIONS

FOR THE DEGREE

OF

BACHELOR OF EDUCATION IN TECHNOLOGY EDUCATION

COURSE CODE: TEM 301

**COURSE TITLE: METHODS OF TECHNING MECHANICAL
TECHNOLOGY**

DATE: 5/12/2023

TIME: 3:00 PM – 5:00 PM

INSTRUCTIONS TO CANDIDATES

1. This paper consists of **FOUR** questions
2. Answer Question **ONE (Compulsory)** and any other **TWO** Questions
3. All symbols have their usual meaning

TIME: 2 Hours

MMUST observes **ZERO** tolerance to examination cheating

This Paper Consists of 3 Printed Pages. Please Turn Over

Question One

- a) The following is the content of diploma course in Mechanical Technology course. Prepare schemes of work for the course by breaking into three-week, 2 hour lessons. **(8 Marks)**

Welding: Definition of welding, types of welding processes, arc welding process; arc welding equipment, types of arc welding, advantages and disadvantages, applications of arc welding process

- b) Using examples from mechanical technology courses, illustrate what is meant by “SMART” objectives with reference to lesson-planning. **(6 Marks)**
- c) “Guided discovery method as student centered is the best method for teaching mechanical courses”. Discuss this statement by illustrating FOUR examples with reference to teaching mechanical course in TVET institutions. **(8 Marks)**
- d) A TVET institution principal insist that student teaching practice teachers from universities should keep records on work covered and surrender them to the deputy principal at the end of the exercise. Explain FOUR reasons why you think records of work needs to be surrendered to the school at the end of teaching practice period. **(8 Marks)**

Question Two

- a) The informal sector (Jua Kali) operators in Kenya have caused more technological problems to the environment than solutions. Discuss this statement using FIVE examples with reference to Mechanical Technology programs. **(10 Marks)**
- b) Discuss FIVE ways of making TVET institutions attractive to Form Four leavers who have not qualified for university admissions in Kenya. **(10 Marks)**

Question Three

- a) Technical and Vocational Education and Training (TVET) system in Kenya is a vehicle of addressing unemployment. Discuss using FIVE examples of challenges faced by Diploma graduates of Mechanical Engineering as they venture into self-employment. **(10 Marks)**

- b) “Low status syndrome is what has been bedeviling TVET institutions in Kenya” Discuss this statement using FIVE illustrations in the historical development of Technical education.

(10 Marks)

Question Four

- a) Briefly discuss FIVE functions that TVET institutions play towards achieving its objective in vision 2030.

(10 Marks)

- b) Explain FIVE reasons why a teacher or a trainer need to prepare schemes of work before embarking on serious teaching or training.

(10Marks)

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