



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

**MAIN CAMPUS**

**UNIVERSITY EXAMINATIONS  
2021/2022 ACADEMIC YEAR**

**FOURTH YEAR FIRST SEMESTER EXAMINATIONS**

**FOR THE DEGREE  
OF  
BACHELOR OF SCIENCE IN CIVIL AND STRUCTURAL  
ENGINEERING**

**COURSE CODE: TEC 302**

**COURSE TITLE: WORKSHOP ORGANIZATION AND  
MANAGEMENT**

**DATE: FRIDAY 29<sup>TH</sup> APRIL 2022**

**TIME: 3.00 – 5.00 PM**

**INSTRUCTIONS:**

1. This paper contains **FOUR** questions
2. Answer question **ONE** and any other two questions from this paper
3. Marks for each question are indicated in the parenthesis.
4. Examination duration is **2 Hours**

MMUST observes **ZERO** tolerance to examination cheating

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

**QUESTION 1 (COMPULSORY)**

- i) Imagine yourself coming up with a Wood workshop outline the layout of various tools and equipment, gang ways, work benches and everything required to convenience work out put in a Technical Training institute. (16 marks)
- ii) Explain meaning of the term 'layout planning' as used in Plant layout. (2 marks).
- iii) Outline four aspects in an educational workshop that would require close Management. (8marks)

**QUESTION 2**

Plant location is an important factor in achieving plant objectives. Discuss. (22 mks)

**QUESTION 3**

- i). Briefly describe the concept of plant layout (2 marks)
- ii) "*safety improves quality in a workshop*". Comment. (8 marks)
- iii). Outline four types of maintenance programmes serviced at a work place. (4 marks)
- iv). Mention eight principles of plant layout: (8 marks)

**QUESTION 4**

- i). State *four* potential sources of danger in a workshop. (4marks)
- ii). Explain with examples the meaning of the two terms below.
- a). 'Workshop organization' (6 marks)
- b). 'Workshop management' (6 marks)
- iii). Distinguish between the following plant layouts:
- a). Hybrid layouts (3marks)
- b). Fixed-Position layouts (3marks)