



(University of Choice)

# MASINDE MULIRO UNIVERSITY OF SCIENCE AND TECHNOLOGY (MMUST)

MAIN CAMPUS

# UNIVERSITY EXAMINATIONS 2023/2024 ACADEMIC YEAR

#### FIRST YEAR FIRST SEMESTER EXAMINATIONS

### FOR THE DEGREE

OF

## BACHELOR OF SCIENCE IN ELECTRICAL AND COMMUNICATION ENGINEERING

COURSE CODE:

**ECE 101** 

**COURSE TITLE:** 

**ENGINEERING DRAWING** 

DATE: 21/12/2023

TIME: 12:00 PM - 2:00 PM

#### INSTRUCTIONS TO CANDIDATES

This paper contains **FOUR** Questions
Answer **question ONE** (1) and any **OTHER TWO** questions
All dimensions are in millimeters unless otherwise stated

TIME: 3 Hours

MMUST observes ZERO tolerance to examination cheating

This Paper Consists of 4 Printed Pages. Please Turn Over.

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QUESTION ONE (40 Marks)

Fig Q1 shows a machine part of a small motor used in driving a robot. As an engineer participating in the robot project, you are tasked to ensure similar parts are produced by a part manufacturer of your choice. It is therefore necessary to draw the orthographic projection of the part. After taking measurements of the part, the following dimensions were obtained.

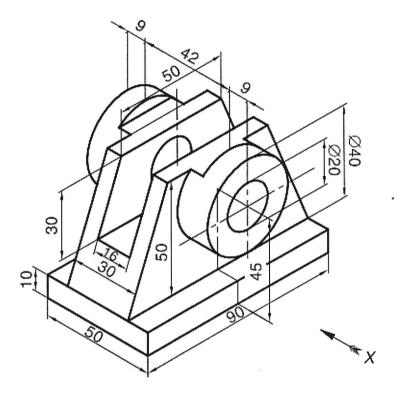


Fig Q1

As a draughtsman, you are required to draw in first angle projection of

- (a) Front View in direction X
- (b) Top View
- (c) Side View

In relation to geometrical construction principles, redraw the spanner shown in Fig Q2. Use actual scale.

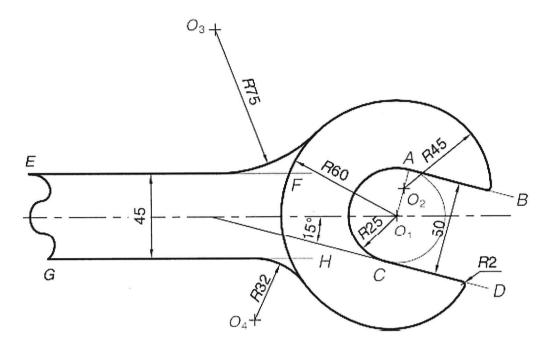


Fig Q2

### **QUESTION THREE**

**30 MARKS** 

For the object shown in Fig. Q3, draw:

- (i) sectional Front View
- (ii) Top View
- (iii) Side View

Use the first-angle method of projection.

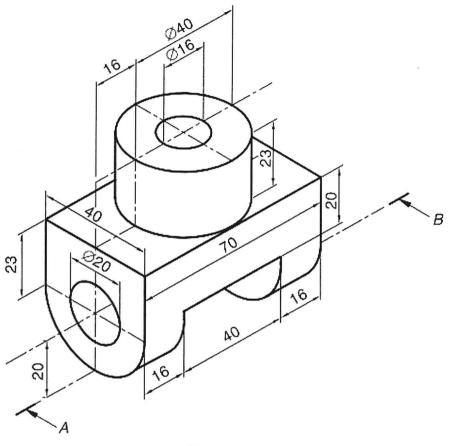


Fig. Q3

### **QUESTION FOUR**

30 MARKS

Sketch first angle orthographic views of the following object in Fig. Q4

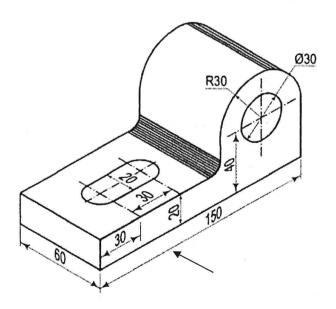


Fig. Q4