(University of Choice)

MASINDE MULIRO UNIVERSITY OF SCIENCE AND TECHNOLOGY
(MMUST)

MAIN CAMPUS

UNIVERSITY EXAMINATIONS 2022/2023 ACADEMIC YEAR

1ST YEAR SECOND SEMESTER EXAMINATIONS

FOR THE DEGREE
OF
BACHELOR OF CIVIL & STRUCTURAL ENGINEERING

COURSE CODE: CSE 112

COURSE TITLE: ENGINEERING DRAWING II

DATE: 18TH APRIL 2023   TIME: 8 – 11 A.M

INSTRUCTIONS:
1. This paper contains FOUR questions
2. **Question ONE (1) is Compulsory**
3. **Attempt a total of Three (3) questions in this booklet.**
4. Marks for each question are indicated in the parenthesis.

Examination duration is **3 Hours**

MMUST observes ZERO tolerance to examination cheating

This Paper Consists of 3 Printed Pages. Please Turn Over.

QUESTION 1 (20 marks)

a) The figure below shows an isometric block. Using the views shown for the front, end and plan, draw the views in the **third angle** projection **(6 marks)**.

Fig. 3
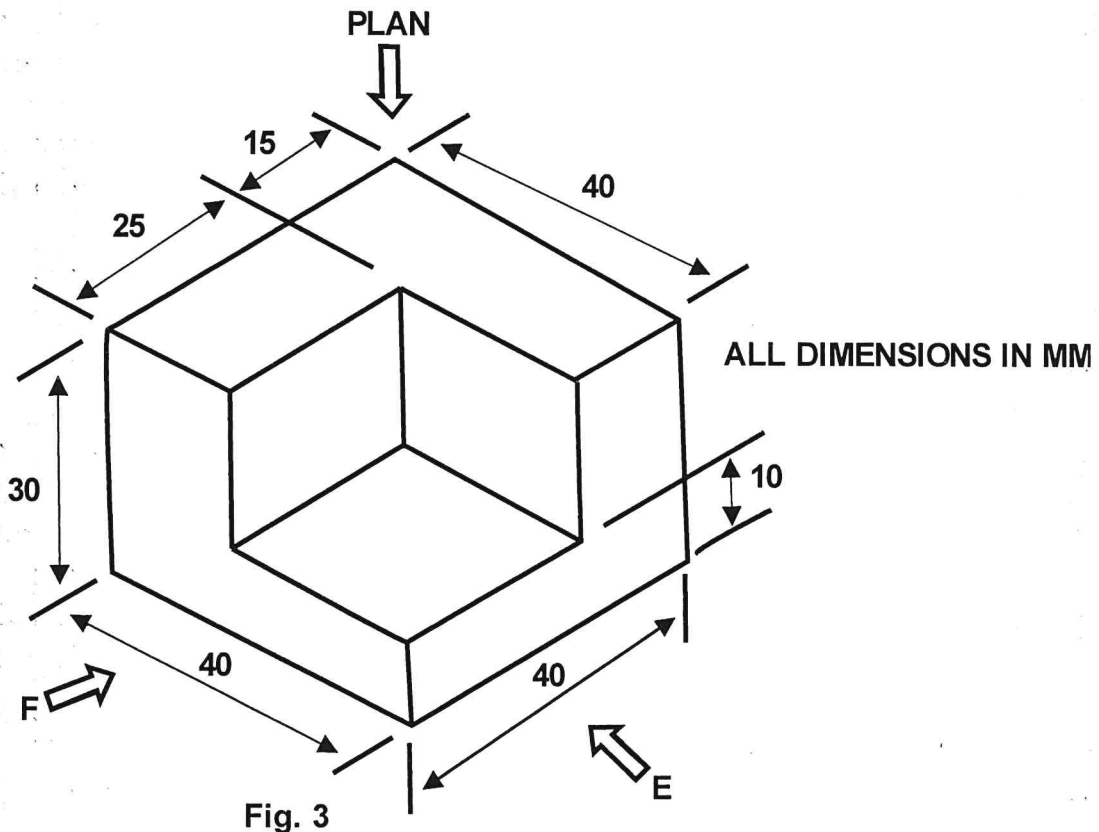
b) A square prism 30mm base sides and 70mm axis is completely penetrated by another square prism of 25mm sides and 70mm axis, horizontally. Both axes intersect and bisect each other. All the faces of the prisms are equally inclined to the VP. Draw projections showing curves of intersections **(8 marks)**

c) Develop the surfaces of **a)** a cube of 1 inch and **b)** a triangular prism of base 1 inch and longer side 3 inch **(6 marks)**

QUESTION 2 (10 marks)

a) To a scale of **1:10** draw a cross section through an inspection chamber (manhole) using the following data: Wall thickness 150mm, effective size 750 x 750mm, concrete base thickness 150mm, masonry wall height 800mm, concrete base size 1200 x 1200mm, mild steel cover thickness 30mm, inlet and outlet pipe 100mm diameter at 100mm from the base

(Assume any other necessary information not given). **(10 marks)**.

QUESTION 3 (10 marks)

a) A cylinder of 80mm diameter and 100mm axis is completely penetrated by a cone of 80mm diameter and 120mm long axis horizontally. Both axes intersect and bisect each other. Draw projections showing curve of intersections **(10 marks)**

QUESTION 4 (10 marks)

a) A hexagonal prism, edge of base 20 mm and axis 50 mm long, rests with its base on H.P such that one of its rectangular faces is parallel to V.P. It is cut by a plane perpendicular to V.P, inclined at 45° to H.P and passing through the right corner of the top face of the prism. Draw the sectional top view and develop the lateral surface of the truncated prism
(10 marks).