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# (University of Choice) MASINDE MULIRO UNIVERSITY OF SCIENCE AND TECHNOLOGY (MMUST) MAIN CAMPUS

## UNIVERSITY SPECIAL EXAMINATIONS,

## 2021/2022 ACADEMIC YEAR

## FIRST YEAR SECOND SEMESTER EXAMINATIONS

#### FOR THE DEGREE IN CIVIL ENGINEERING

**COURSE CODE: CSE 112** 

COURSE TITLE: ENGINEERING DRAWING II

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

TIME: 8.00 - 10. AM

#### **INSTRUCTIONS:**

- 1. Answer any FOUR Questions
- 2. Marks for each question are indicated in the parenthesis.
- 3. Examination duration is 2 Hours

MMUST observes ZERO tolerance to examination cheating
This Paper Consists of 2 Printed Pages. Please Turn Over.

#### **QUESTION ONE (10 MARKS)**

A vertical cylinder of 50mm diameter and height 70mm is resting on its base on H.P, is completely penetrated by another cylinder of 32mm diameter with 15mm extension on both sides of the vertical cylinder such that their axes bisect each other at right angles and are 6mm apart. Draw the projections showing curves of interpenetration, assuming the axis of penetrating cylinder to be parallel to both H.P and V.P.

### **QUESTION TWO (10 MARKS)**

Draw the projections of a cube of 35mm side, resting on one of its faces (bases) on H.P., such that one of its vertical faces is parallel to and 10mm in front of *V.P.* 

#### **QUESTION THEE (10 MARKS)**

A hexagonal prism with side of base 25mm and 50mm long is resting on a corner of its base on HP. Draw the projections of the prism when its axis is making 30° with HP and parallel to V.P.

#### **QUESTION FOUR (10 MARKS)**

A Pentagonal prism of side of base 20 mm and height 50 mm stands vertically on its base with a rectangular face perpendicular to V.P. A cutting plane perpendicular to V.P and inclined at 600 to the axis passes through the edges of the top base of the prism. Draw the development of the lateral surface of the cut prism.

#### **QUESTION FIVE (10 MARKS)**

A regular hexagon thin plate of 40mm side has a circular hole of 45mm diameter in its center. It is resting on one of its corner in H.P. Draw its projections when the plate surface is vertical to HP and 30° to V.P.