MACHAKOS UNIVERSITY

University Examinations for 2021/2022 Academic Year

SCHOOL OF ENGINEERING AND TECHNOLOGY

DEPARTMENT OF BUILDING AND CIVIL ENGINEERING

SECOND YEAR SPECIAL / SUPPLEMENTARY EXAMINATION FOR

BACHELOR OF SCIENCE (CIVIL ENGINEERING)

ECV 200: ENGINEERING DRAWING II

DATE: 30/8/2022 **TIME: 2.00-4.00 PM**

INSTRUCTIONS:

- *This paper comprises of four questions. Answer **two** questions*
- *Question one is **compulsory** and carry 30 marks*
- *Answer any other **one** questions*

QUESTION ONE (30 MARKS)

a) Draw the oblique projection of the following views (10 marks)

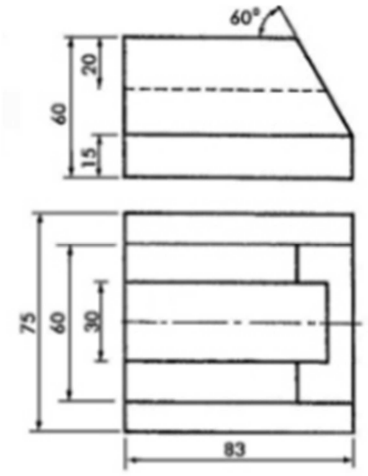

Figure 1

b) From the views given in figure 2, draw the isometric projection (10 marks)

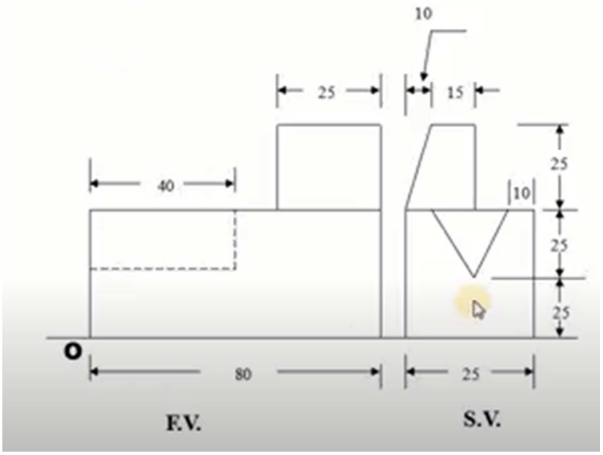

Figure 2

c) Draw the projections of a cube of 35mm side, resting on one of its faces (bases) on Horizontal Plane, such that one of its vertical faces is parallel to and 10mm in front of Vertical Plane. (10 marks)

QUESTION TWO (20 MARKS)

A vertical square prism, base 50mm, is completely penetrated by a horizontal square prism, base 35mm side, so that their axes intersect. The axis of the horizontal prism is parallel to the prism, while the faces of the two prisms are equally inclined to the prism. Draw the projections of the solids, showing lines of intersection. Assume suitable lengths for the prisms.

QUESTION THREE (20 MARKS)

Draw the development of a square prism of side of base 30mm and height 50mm.

QUESTION FOUR (20 MARKS)

A right regular pentagonal prism, side of base 30mm and height of axis as 75mm rests on Horizontal plane on one of its base corners such that its long edge containing the corner is inclined to the Horizontal Plane at 60^{o}. Draw its projections.