MACHAKOS UNIVERSITY

University Examinations for 2022/2023

SCHOOL OF ENGINEERING AND TECHNOLOGY

DEPARTMENT OF BUILDING AND CIVIL ENGINEERING

SECOND YEAR FIRST SEMESTER EXAMINATION FOR

BACHELOR OF SCIENCE (CIVIL ENGINEERING)

ECV 200: ENGINEERING DRAWING II

DATE: **TIME:**

INSTRUCTIONS:

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

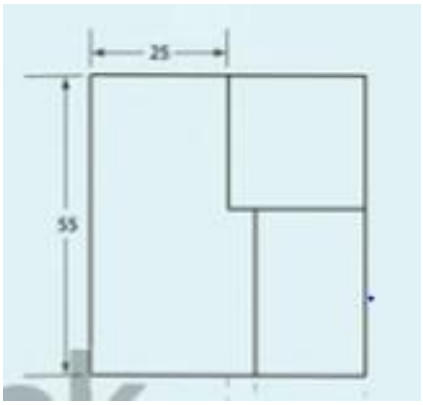
1. (a) A square prism of base side on 30 mm and axis length 60 mm is resting on horizontal plane (HP) on one of its bases, with a base side inclined at 30° to vertical plane (VP). It is cut by a plane .inclined at 40° to. HP and perpendicular to VP and is bisecting the axis of the prism. Draw its front view and sectional top view

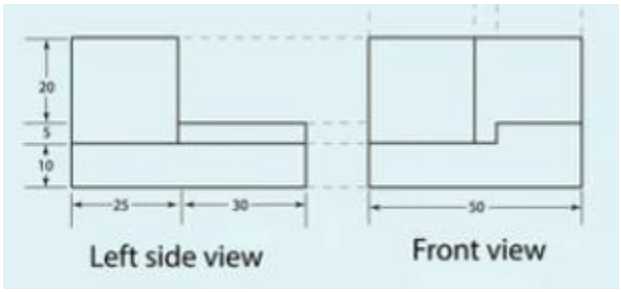
(10 marks)

b) 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)

c) Construct the isometric solid from the views given in figure 1 (10 marks)

top view





2. A T-pipe connection consists of a vertical cylinder of diameter 80mm and a horizontal cylinder of the same size. The axes of the cylinders meet at right angles. Draw the curves of intersection (20 marks)

3. Draw the development of a square prism of side of base 30mm and height 50mm (20 marks)

4. A right regular pentagonal prism, side of base 30mm and height of axis 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 (20 marks)

Should be five marks