



MACHAKOS UNIVERSITY

University Examinations for 2020/2021 Academic Year

SCHOOL OF ENGINEERING AND TECHNOLOGY

DEPARTMENT OF BUILDING AND CIVIL ENGINEERING

SECOND YEAR SPECIAL/ SUPPLEMENTARY EXAMINATION FOR

BACHELOR OF SCIENCE IN CIVIL ENGINEERING

ECV 200: ENGINEERING DRAWING II

DATE: 25/3/2021

TIME: 2.00-4.00 PM

INSTRUCTIONS

ANSWER **Q1** AND ANY OTHER **TWO** QUESTIONS

1.
 - a) Draw an oblique circle of radius 20 mm (5 marks)
 - b) Construct a parabola in a rectangle 80 mm x 50 mm. (5 marks)
 - c) Construct an ellipse whose minor axis = 50 mm and major axis = 70 mm using focal point method. (10 marks)
 - d) construct Archimedian spiral in a base circle of radius 25 mm (10 marks)
2. **Fig.Q2** shows a solid block. Using third angle orthographic projection, draw
 - a) Plan in the direction P
 - b) Sectional front elevation in the direction F
 - c) End elevation in the direction E (20 marks)
3. **Fig.Q3** shows Front elevation of a truncated right cone of base diameter 50 mm and vertical height of 70 mm. Using first angle orthographic projection,
 - a) Copy the front elevation. (3 marks)
 - b) Project plan. (7 marks)
 - c) Construct the true shape of the truncated cone (10 marks)

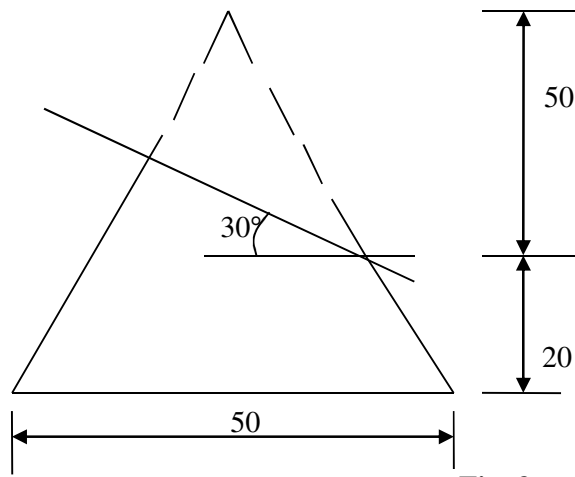
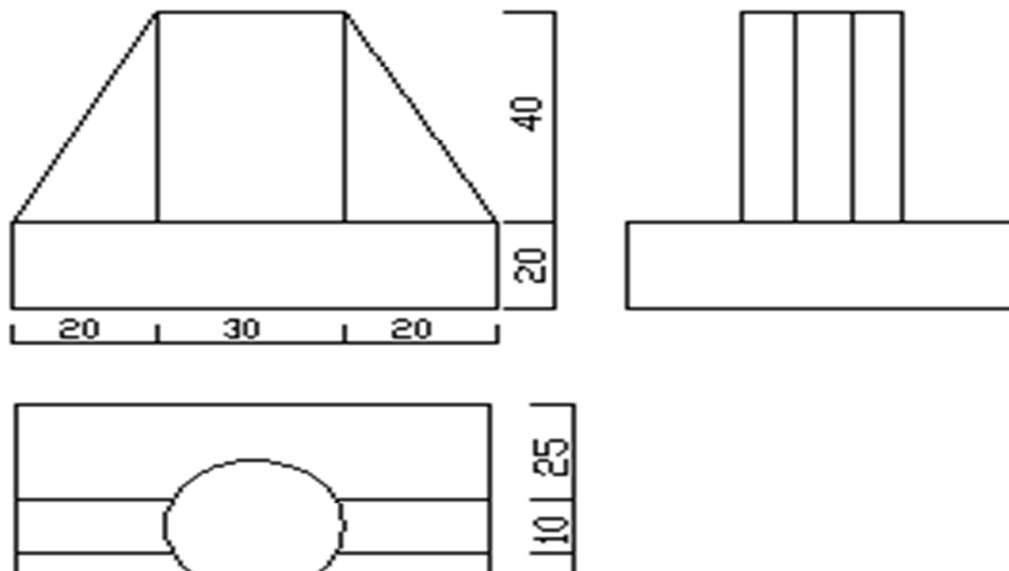


Fig. 3

4. Assemble the views in **Fig.Q4** using isometric projection. (20 marks)
5. Assemble the views shown in **Fig.Q5** using cavalier oblique projection. (20 marks)



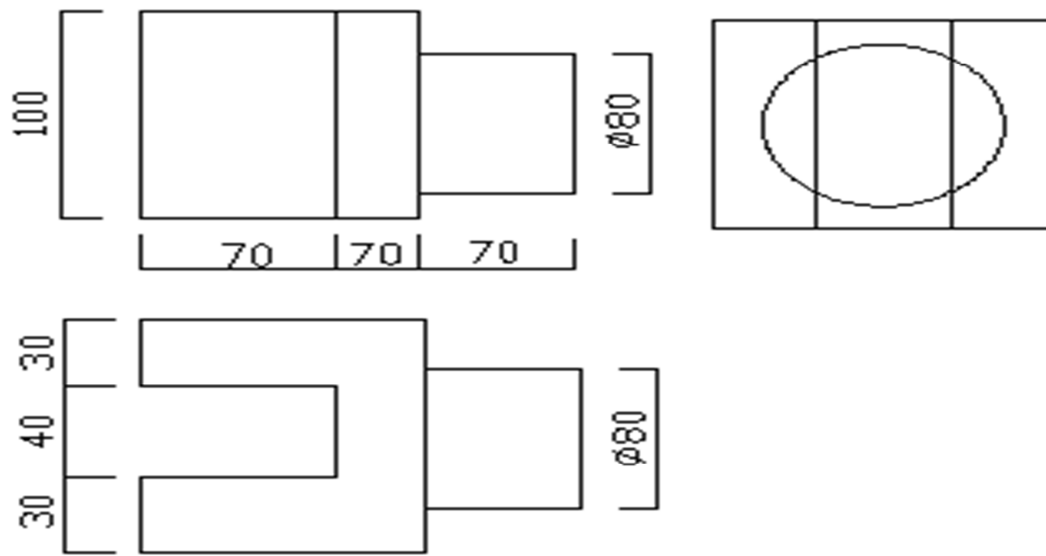


Fig. Q5