



MACHAKOS UNIVERSITY

University Examination 2018/2019

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: 31/7/2019

TIME: 8.30-10.30 AM

INSTRUCTIONS: Answer questions **ONE** and any other **TWO** questions.

1.
 - a) Draw an isometric 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 = 60 mm and major axis = 80 mm using concentric circle method. (10 marks)
 - d) Circumscribe a regular octagon using Universal Method (10 marks)
2. **Fig.Q2** shows a solid block. Using first angle orthographic projection, draw
 - a) Plan in the direction P
 - b) First angle orthographic projection 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 60 mm and vertical height of 80 mm. Using first angle orthographic projection,
 - a) Copy the front elevation. (3 marks)
 - b) Project plan. (7 marks)
 - c) Construct the surface development of the truncated cone (10 marks)

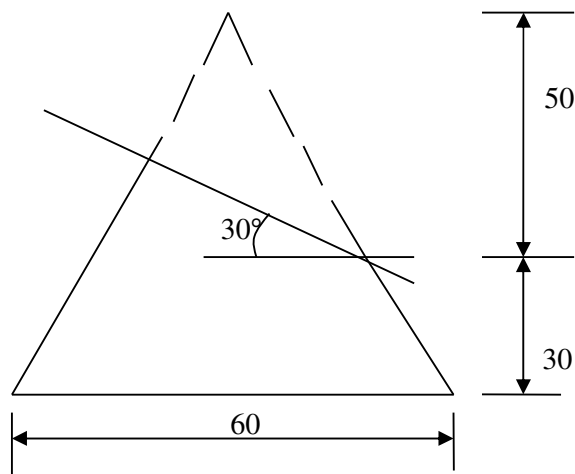


Fig. 3

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

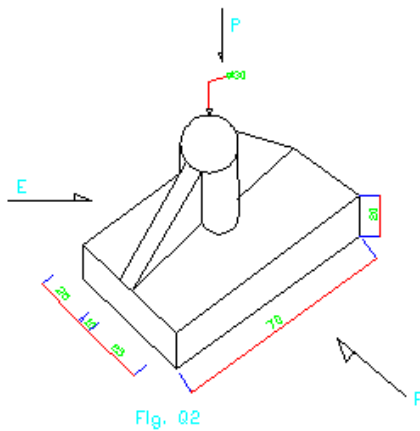


Fig. Q2

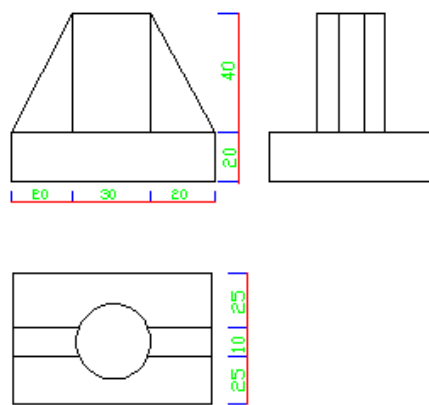


Fig. Q4

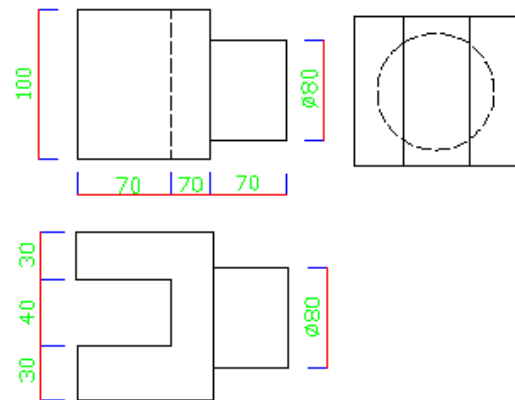


Fig. Q5