

Code No: **R201104**

R20

SET - 1

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY GURAJADA VIZIANAGARAM
I B. Tech I Semester Supplementary Examinations June 2025

ENGINEERING DRAWING

(Common ECE, MECH & CE)

Time: 3 hours

Max. Marks: 70

Answer any **FIVE** Questions. **ONE** Question from **Each unit**

All Questions Carry Equal Marks

UNIT-I

1. a) Construct a parabola, when the distance of the Focus from the directrix is 80 mm. [7M]
b) Draw a diagonal scale of 1: 2.5 showing centimeter and millimeter and long enough to measure up to 20 centimeter. Show 13.4 cm on it. [7M]
(OR)
2. a) Construct a cycloidal curve when a circle of radius 40mm is rolling on a flat surface. [7M]
b) Construct a hyperbola, when the distance of the focus from the directrix is 72 mm and eccentricity is 5/4. [7M]

UNIT-II

3. a) Draw projections in all possible positions for point P, and is 50 mm from both the reference planes. [7M]
b) Develop the projections of a straight line AB of 80 mm length parallel to VP and inclined at 20° to HP. The end A is in HP and 25 mm from the VP. [7M]
(OR)
4. a) Draw projections and find inclination with the VP of a 100 mm long line as its parallel to and 40 mm above the HP. Its two ends are 25 mm and 50 mm in front of the VP respectively. [7M]
b) Draw the projections of the straight line AB, 60 mm long, has its end A in both the HP and the VP. It is inclined at 45° to the HP and 30° to the VP. [7M]

UNIT-III

5. Draw the projections of a regular hexagon of 25 mm side, having one of its sides in the HP and inclined at 60° to the VP, and its surface making an angle of 45° with the HP. [14M]
(OR)
6. Construct the projections of a pentagonal plane of side 30mm, such that one of its base edges resting on HP. if its surface is inclined at 30° and the base edge is inclined at 45° to VP. [14M]

UNIT-IV

7. Draw the projections of a cylinder 75 mm diameter and 100 mm long, with its axis inclined at 30° to the VP and 50° to the HP. [14M]
(OR)
8. Draw the projections of a cone, base 30 mm diameter and axis 50 mm long, resting on HP on a point of its base circle with the axis making an angle of 45° with HP and 30° to the VP. [14M]

UNIT-V

9. Draw the front, top and left- and right-hand side views of the given figure.1 [14M]

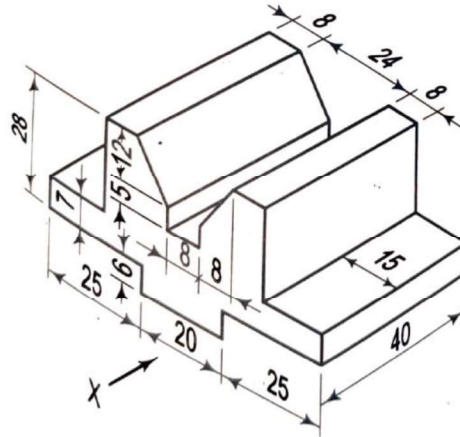


Figure:1

(OR)

10. Draw the isometric view of the object shown in Figure 2. All dimensions are in mm. [14M]

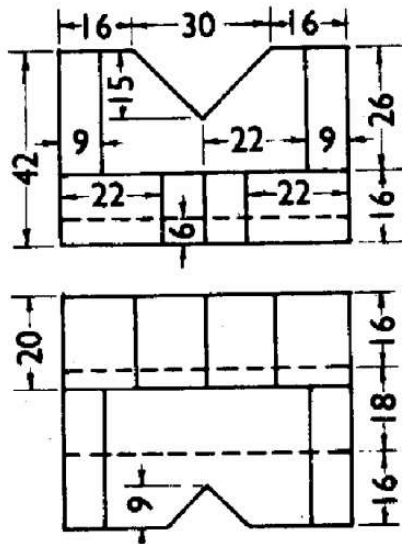


Figure: 2
