Code No: 51015 **R09**

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD
B.Tech I Year Examinations, September/October - 2021
ENGINEERING DRAWING
(Information Technology)

Time: 3 Hours **Max. Marks: 75**

Answer any three questions
All questions carry equal marks
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1.a) The major axis of an ellipse is 140 mm long and the minor axis is 100 mm long. Find the foci and draw an ellipse. Draw a tangent to the ellipse at a point on it 25 mm above the major axis.

b) A circle of diameter 50mm rolls on another circle of diameter 100mm without slipping. Draw the curve traced by any point of on the rolling circle for one complete revolution. [12+13]

2.a) A line EF 85 long has its ends 25 mm above HP and 15 mm in front of V.P. The top and front views of the line have lengths of 55 mm and 70 mm respectively. Draw the projections of the line and find its true inclinations with the V.P and H.P.

b) A regular hexagonal lamina with its edge 50 mm has its plane inclined at 45^0 to H.P and lying with one of its edges in H.P. The plane of one of its diagonals is inclined at 40^0 to XY. The corner nearest to VP is 15 mm in front of it. Draw its projections. [12+13]

3. A vertical hexagonal prism of 25 mm side of base and axis 60 mm has one of its rectangular faces parallel to VP. A circular hole of 40 mm diameter is drilled through the prism such that the axis of the hole bisects the axis of the prism at right angle and is perpendicular to VP. Draw the development of the lateral surface of the prism showing the true shape of the hole in it. [25]

4. Draw the isometric view of the machine part shown in figure 1. All dimensions are in mm. [25]

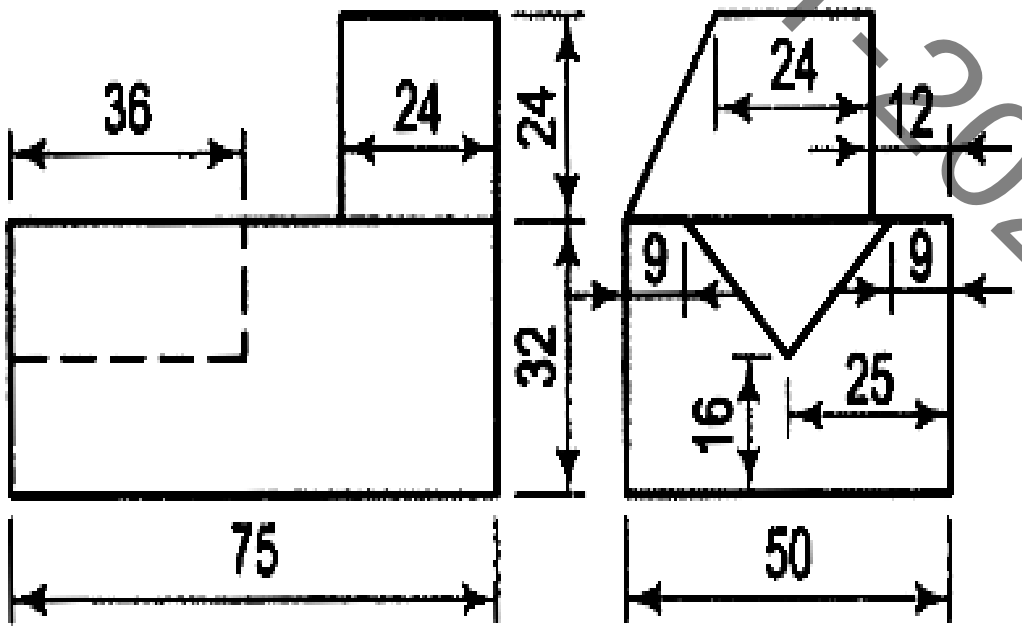

Figure: 1

5. Draw the front view, top view and side view for the picture shown in figure 2. All dimensions are in mm. [25]

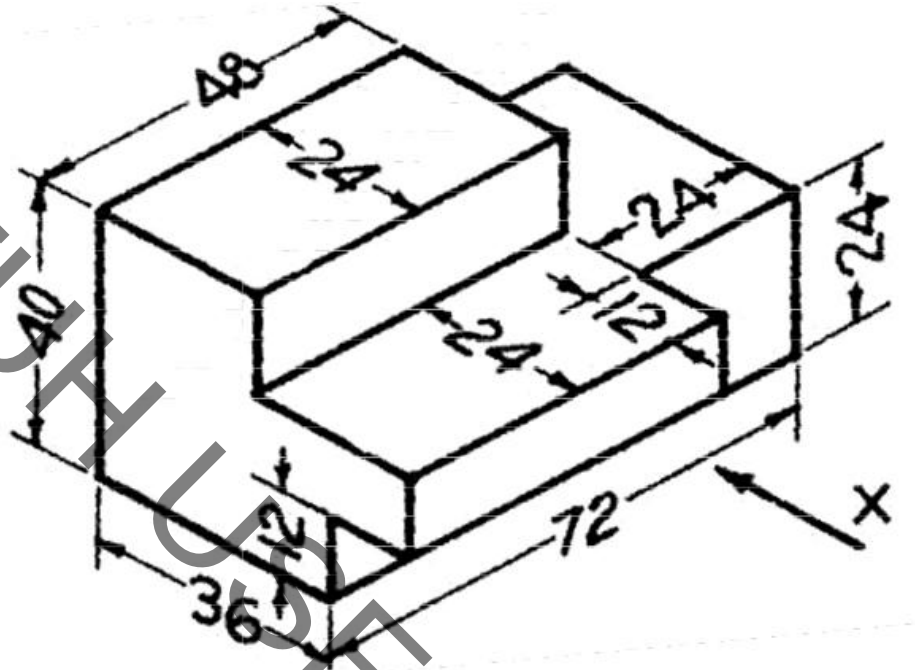

Figure: 2

6. A cube of edge 30 rests with one of its faces on the ground plane such that a vertical edge touches the PP. The vertical faces of the cube are equally inclined to PP and behind it. A station point is 35 mm in front of the PP, 50 mm above the ground plane and lies in a central plane 15 mm to the right of the axis of the cube. Draw the perspective view. [25]

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