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SIDDHARTH INSTITUTE OF ENGINEERING & TECHNOLOGY:: PUTTUR
(AUTONOMOUS)**B.Tech I Year I Semester Supplementary Examinations August-2022****ENGINEERING GRAPHICS**

(Common to ECE, CSE & CSIT)

Time: 3 hours

Max. Marks: 60

(Answer all Five Units 5 x 12 = 60 Marks)

UNIT-I

- 1 a A thread of length 165 mm is wound round a circle of 40 mm diameter. Trace the path of end point of the thread. **L1 6M**
- b Draw an involute of a triangle 20 mm side; draw a normal and a tangent at a point 60 mm from the centre of the triangle. **L2 6M**

OR

- 2 a The major and minor axes of ellipse are 120 mm and 80 mm. Draw the ellipse by using concentric circles method. **L3 6M**
- b Construct a parabola with base 60 mm and length of the axis 40 mm. Draw a tangent to the curve at point 20 mm from the base using rectangular method. **L3 6M**

UNIT-II

- 3 A point A is 15 mm above HP and 20 mm in front of VP. Another point B is 25mm behind VP and 40 mm below HP. Draw the projections of A and B, Keeping the distance between the projectors equal to 90 mm. Draw straight lines , joining their top views and front views. **L3 12M**

OR

- 4 A semi-circular plate of 80 mm diameter , has its straight edge on V.P and inclined at 30° to H.P , while the surface of the plate is inclined at 45° to V.P Draw the projections of the plate. **L3 12M**

UNIT-III

- 5 A hexagonal prism side of base 25 mm and axis 50 mm long resting with one of its base corner on H.P such that its base makes an angle of 60° to H.P and its axis parallel to V.P. Draw its projections. **L3 12M**

OR

- 6 A cone with base 60 mm diameter and axis 75 mm long, is resting on its base on H.P. It is cut by a section plane parallel to H.P and passing through the mid-point of the axis. Draw the projections of the cut solid. **L3 12M**

UNIT-IV

- 7 A cylinder of base diameter 40 mm and axis 55 mm long is resting on its base on HP. Its cut by a section plane perpendicular to VP and inclined at 45° to HP. The section plane is passing through the top end of an extreme generator of the cylinder. Draw the development of lateral surface of the cut cylinder. **L3 12M**

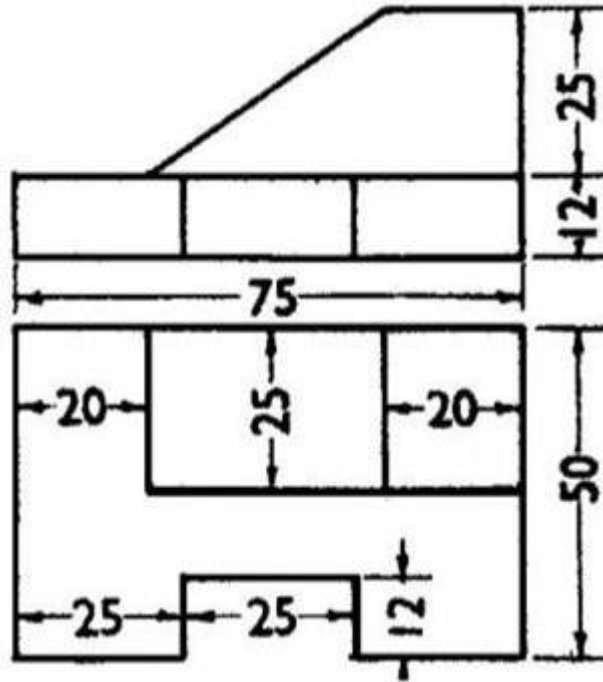
OR

- 8 A cylinder 50mm diameter and 70 mm axis is completely penetrated by a square prism of side 25mm and axis 70 mm horizontally. Both the axis intersect and bisect each other. All faces of the prism are equally inclined to HP. Draw the projections showing the curves of intersection. **L3 12M**

UNIT-V

9 Draw the isometric view of the following sketch.

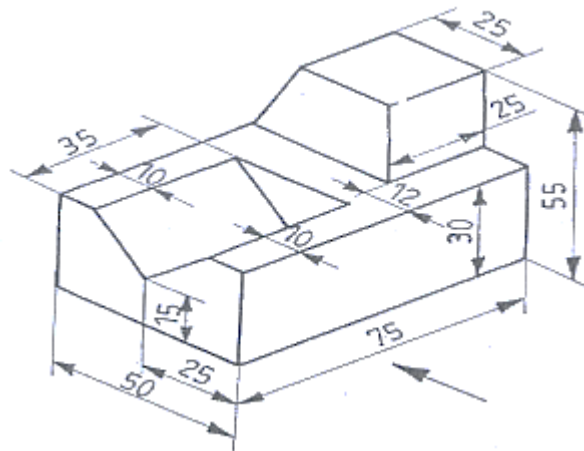
L4 12M



OR

10 Draw three views of the blocks shown pictorially in figure according to first angle projection.

L4 12M



*** END ***