

SIDDHARTH INSTITUTE OF ENGINEERING & TECHNOLOGY:: PUTTUR
(AUTONOMOUS)

B.Tech. I Year I Semester Regular Examinations February-2024

ENGINEERING GRAPHICS

(Common to EEE & CSIT)

Time: 3 Hours

Max. Marks: 70

(Answer all Five Units 5 x 14 = 70 Marks)

UNIT-I

- 1 Construct an ellipse, with distance of the focus from the directrix as 50 mm and eccentricity as $\frac{2}{3}$. Also draw normal and tangent to the curve at a point 40 mm from the directrix. **L6 CO1 14M**

OR

- 2 Construct a hypo cycloid of a circle of 50 mm diameter, which rolls inside another circle of 180 mm diameter for one revolution counter clockwise. **L6 CO1 14M**

UNIT-II

- 3 Draw the projections of a straight line AB of 70 mm long, in the following positions: **L1 CO2 14M**
 i) Inclined at 30° to VP, in HP and one end on VP
 ii) Inclined at 45° to HP, one end 20 mm above HP and parallel to and 30 mm in front of VP
 iii) Inclined at 60° to VP, one end 20 mm in front of VP and parallel to and 25 mm above HP

OR

- 4 A semi circular plane of diameter 70mm has its straight edge on the VP and inclined at 30° to the HP .Draw the projection of the plane when its surface is inclined at 45° to VP. **L6 CO3 14M**

UNIT-III

- 5 Draw the projections of a hexagonal prism of base side 25mm and axis 60mm long, when it is resting on one of its corners of the base on H.P. The axis of the solid is inclined at 45° to H.P. **L6 CO3 14M**

OR

- 6 A pentagonal prism of base side 30 mm and axis 60mm is resting on one of its rectangular faces on HP, with the axis parallel to VP. Draw its projections. **L6 CO3 14M**

UNIT-IV

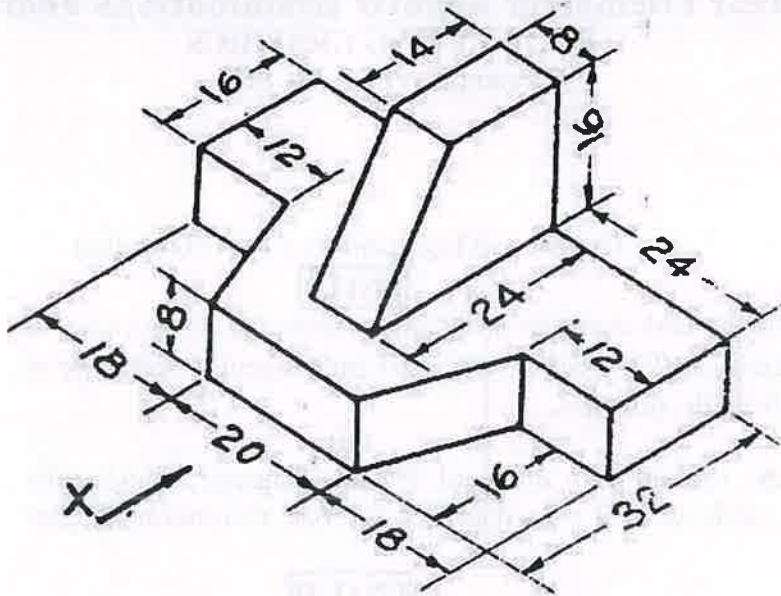
- 7 A square pyramid of base 40 mm and axis 60 mm long, Its base lies on VP with its axis parallel to HP. A cut sectional plane, 60° to VP and bisect the axis. Draw the projections sectional front view and true shape of the section. **L6 CO4 14M**

OR

- 8 A square pyramid, with side of base 30 mm and axis 50 mm long, is resting on its base on HP with an edge of the base parallel to VP. It is cut by a section plane, perpendicular to VP and inclined at 45° to HP. The section plane is passing through the mid-point of the axis. Draw the development of the surface of the cut pyramid. **L1 CO4 14M**

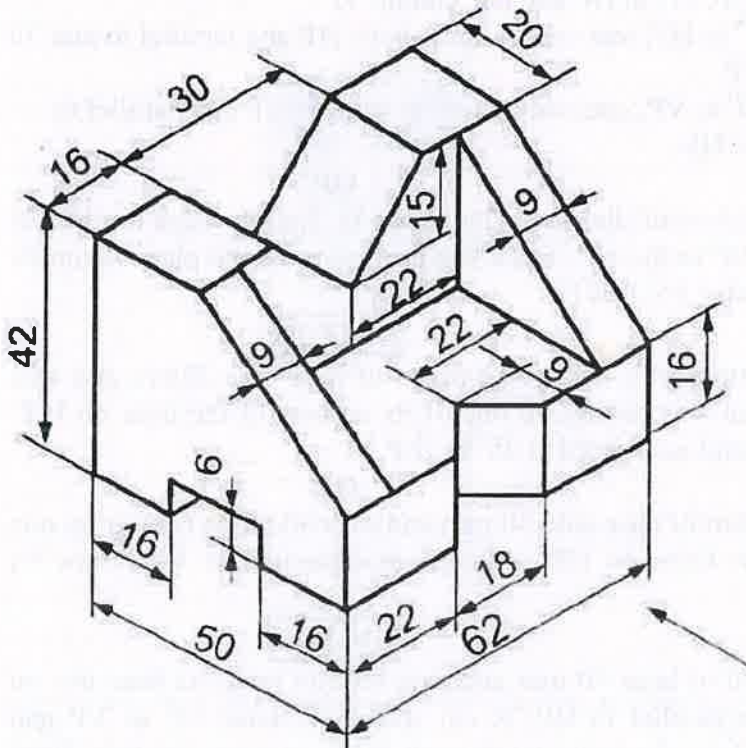
UNIT-V

- 9 Draw three views of the blocks shown pictorially in figure according to first angle projection. L6 C06 14M



OR

- 10 Draw three views of the blocks shown pictorially in figure according to first angle projection. L6 C06 14M



*** END ***