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**SIDDHARTH INSTITUTE OF ENGINEERING & TECHNOLOGY:: PUTTUR**

(AUTONOMOUS)

**B.Tech I Year I Semester Supplementary Examinations Feb-2021****ENGINEERING GRAPHICS**

(Common to ECE, CSE &amp; CSIT)

Time: 3 hours

Max. Marks: 60

(Answer all Five Units **5 x 12 = 60** Marks)**UNIT-I**

- 1 Construct a hyperbola with the distance between the focus and directrix as 50mm and eccentricity as  $3/2$ . Also, draw normal and tangent to the curve at a point 30mm from the directrix. **12M**

**OR**

- 2 Construct a cycloid, given the diameter of the generating circle as 40 mm. Draw the tangent to the curve at a point on it, 35 mm from the line. **12M**

**UNIT-II**

- 3 Two point A and B are on H.P, the point A being 30 mm in front of V.P, while B is 45 mm behind V.P. The line joining their top views makes an angle of  $45^\circ$  with XY. Find the horizontal distance between two points. **12M**

**OR**

- 4 A line AB of 80 mm long as its end A 15 mm from both H.P and V.P. The other end B is 40 mm above H.P and 50 mm in front of V.P. Draw the projections of the line and determine the inclination of the line with H.P and V.P. **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  $60^\circ$  to H.P and its axis parallel to V.P. Draw its projections. **12M**

**OR**

- 6 A square pyramid of base 30mm and axis 65mm long, is resting with its base on H.P and all the edges of the base are equally inclined to VP. It's cut by sectional plane perpendicular to VP and inclined  $45^\circ$  to HP bisecting the axis. Draw its SFV, SSV, STV, TS. **12M**

**UNIT-IV**

- 7 A square prism side of base 40 mm and axis 80 mm long, is resting on its base on H.P such that, a rectangular face of it is parallel to V.P. Draw the development of the prism. **12M**

**OR**

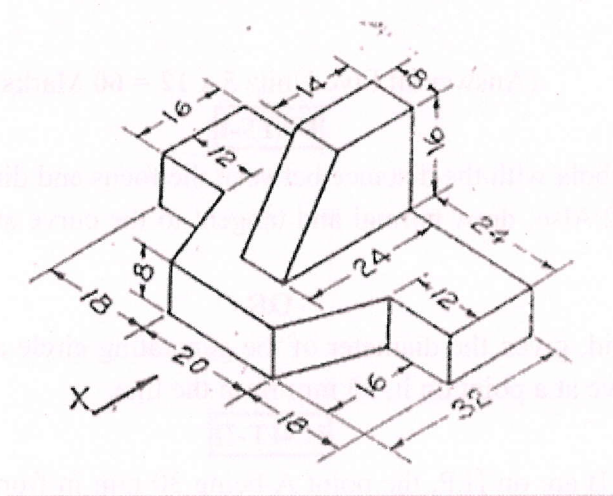
- 8 A cylinder 50mm diameter and 70mm axis is completely penetrated by a square prism of side 25mm and axis 70 mm horizontally. Both the axis intersect and bisect each other. All faces of the prism are equally inclined to HP. Draw the projections showing the curves of intersection. **12M**

**UNIT-V**

- 9 Draw the isometric view of a pentagonal pyramid side of base 25 mm and axis 60 mm long. The pyramid is resting on its base on H.P, with an edge of the base away from the observer and parallel to V.P. **12M**

**OR**

- 10 Draw three views of the blocks shown pictorially in figure according to first angle projection **12M**



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