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

B.Tech I Year I Semester Supplementary Examinations Feb-2021

ENGINEERING GRAPHICS & DESIGN

(Common to ECE, CSE & CSIT)

Time: 3 hours

Max. Marks: 60

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

UNIT-I

- 1 The vertex of a hyperbola is 60 mm from its focus. Draw the curve, if the eccentricity is $3/2$. Draw a normal and a tangent at a point on the curve, 75 mm from the directrix. 12M

OR

- 2 Construct an ellipse when the distance between the focus and directrix is 35 mm and eccentricity is $3/4$. Also draw the tangent and normal to any point on the curve. 12M

UNIT-II

- 3 A line AB, 50mm long, has its end A away from the HP and VP than end B. The line is inclined to the HP at 30 degree and to the VP at 45degree. Draw the projections if end A is 35mm above the HP and 50mm in front of the VP. 12M

OR

- 4 A point A is 20mm above the HP and 50mm in front of the VP. Another point B is 40mm below the HP and 15mm behind the VP. The distance between the projectors of the points, measured parallel to xy, is 75mm. Draw the projections of the points. Draw lines joining their FVs and TVs. 12M

UNIT-III

- 5 A regular hexagonal plane of 45 mm side has a corner on HP, and its surface is inclined at 45 to HP. Draw the projections, when the diagonal through the corner, which is on HP makes 300 with VP. 12M

OR

- 6 A cone of diameter 50 mm and axis 60 mm as its generator in the VP and the axis is parallel to the HP. Draw its projection. 12M

UNIT-IV

- 7 A hexagonal prism of side of base 30 mm and length of axis 75 mm is resting on its base on HP. It is cut by a section plane inclined 35 degree to HP and passing through top corner. Draw the front and sectional top views of the solid and true shape of the section. 12M

OR

- 8 A cone of base 50 mm diameter and height 65 mm rests with its base on HP. A section plane perpendicular to VP and inclined at 30 degree to HP bisects the axis of the cone. Draw the development of the lateral surface of the truncated cone. 12M

UNIT-V

- 9 Draw the isometric projection of the frustum of a hexagonal pyramid of base side 40 mm, top side 25mm, and height 70mm. The frustum rests on the HP. 12M

OR

- 10 Draw the isometric projection of a hexagonal prism of base side 30 mm and axis 70mm. The prism rests on its base on the HP with an edge of the base parallel to the VP. 12M

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