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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 & CSIT)

Time: 3 hours

Max. Marks: 60

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

UNIT-I

- 1 Construct an ellipse with the distance of focus from directrix is 50 mm and eccentricity is $\frac{2}{3}$. Also draw a tangent and normal at a point 30 mm from the directrix. 12M

OR

- 2 Construct a hypocycloid of a circle of 50mm diameter rolling inside another circle of 150 mm diameter for one revolution counter clockwise direction. 12M

UNIT-II

- 3 a A line AB 100 mm length is inclined at 45° to HP and 30° to VP. The point is 10mm above HP and 15 mm in front of VP. Draw its projections. 8M
b Draw the projections of a line of 90 mm length (i) On HP and 20 mm above VP 4M
(ii) On VP and 20 mm in front of HP (iii) Parallel to both HP and VP at a distance of 20 mm from each.

OR

- 4 A point A is 30 mm above HP and 50 mm in front of VP. Another point B is 40 mm below the HP and 20 mm behind the VP. The distance between the projectors of the point measured parallel to XY is 80 mm. Draw the projections and find out its true length and true inclinations. 12M

UNIT-III

- 5 Draw the projection of pentagonal plane resting on one side of its base and inclined at 45° to HP and the side on which it is resting is making an angle of 30° with a VP 12M

OR

- 6 A pentagonal prism with base length of 40 mm and height of 60 mm has one of its rectangular faces on HP and axis inclined to 30° to VP. Draw its projections. 12M

UNIT-IV

- 7 A square prism of side of base 40mm and axis 60 mm long is resting on its base such that a rectangular face of it is parallel to VP. Draw the development of the prism. 12M

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 degree to HP. The section plane is passing through the mid-point of the axis. Draw the development of the surface of the cut pyramid. 12M

