O.P.Code: 20ME0301c	R20	H.T.No.									

SIDDHARTH INSTITUTE OF ENGINEERING & TECHNOLOGY:: PUTTUR

(AUTONOMOUS)

B.Tech I Year II Semester Regular & Supplementary Examinations August-2023

ENGINEERING GRAPHICS

(Common to CE, AGE, CAD & CSIT)

Time: 3 Hours **Max. Marks: 60**

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

UNIT-I

1	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	CO1	L3	12M
	OR			
2	A point P is 30 mm and 50 mm respectively from two straight lines which are inclined at 75^0 to each other. Draw the rectangular hyperbola from p within 10 mm distance from each line.	CO1	L3	12M

UNIT-II

3	A point E is 20 mm below HP and 30mm behind VP. Another point F is infront of VP and above the HP. The distance between the projectors of the points is 60mm .Determine the point F and Point E if the length of line joining their top views and front views are 80 & 90.	CO2	L3	12M
	OR			
4	Draw the projections of a straight line AB of 70 mm long, in the following positions: a)Inclined at 30^0 to VP, in HP and one end on VP b) Inclined at 45^0 to HP, one end 20 mm above HP and parallel to and 30 mm in front of VP c) Inclined at 60^0 to VP, one end 20 mm in front of VP and parallel to and 25 mm above HP	CO2	L3	12M

UNIT-III

5	A square plane ABCD of side 30mm is parallel to HP and 20mm away from it. Draw the projections of the plane, when (i) two of its sides are parallel to VP and (ii) and one of its side is inclined at 300 to VP.	CO3	L3	12M
	OR			
6	A thin $30^o - 60^o$ set-square has its longest edge (diagonal) on HP and inclined at 30^o to VP. Its surface makes an angle of 45^o with HP. Draw the projections, choosing suitable size for the set-square.	CO3	L3	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 at 45^0 to HP and passing through top corner. Draw the front and sectional top views of the solid and true shape of the section.	CO6	L3	12M
	OR			
8	A cone of 50 mm diameter and axis 70 mm long. Its base is on HP.It is cut by a sectional plane perpendicular to VP and inclined to HP at 45^0 from apex 32mm .Draw the projections of FV,S.TV, True shape.	CO6	L3	12M

UNIT-V

9	Draw the isometric projection of a pentagonal prism of base side 35 mm and axis 60mm. The prism rests on its base on the HP with an edge of the base parallel to the VP.	CO6	L4	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.	CO6	L4	12M

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