O.P.Code: 23ME0302b	R23	H.T.No.									

SIDDHARTH INSTITUTE OF ENGINEERING & TECHNOLOGY:: PUTTUR
(AUTONOMOUS)
B.Tech I Year II Semester Regular & Supplementary Examinations June-2025
ENGINEERING GRAPHICS
(Common to CCC, CIC, CAI & CIA)

Time: 3 Hours **Max. Marks: 70**

(Answer all the Questions **5 x 14 = 70** Marks)

UNIT-I

1		Draw a parabola having a distance of 50 mm between the focus and directrix and identify normal and tangent to the parabola at a point 35 mm from the focus	CO1	L6	14M
		OR			
2	a	Develop the involute of a regular hexagon of side 20 mm. Draw a tangent and normal to the curve at a distance of 100 mm from the centre of the hexagon.	CO1	L3	8M
	b	i) Draw the involute of a square of side 25 mm ii) Draw the involute of an equilateral triangular of side 20 mm.	CO1	L3	6M

UNIT-II

3		A line AB of 100mm length is inclined at an angle of 300 to HP and 450 to VP. The point A is 15mm above HP and 20mm in front of VP. Draw the projections of the line.	CO2	L1	14M
		OR			
4		A semi circular plane of diameter 70mm has its straight edge on the VP and inclined at 30o to the HP .Draw the projection of the plane when its surface is inclined at 450 to VP.	CO3	L6	14M

UNIT-III

5	a	Draw the projections of a cylinder of base 30mm diameter and axis 50mm long, when it is resting on H.P on one of its bases.	CO3	L6	7M
	b	Draw the projections of a cone of base 30mm diameter and axis 50mm long, when it is resting on H.P on one of its bases.	CO3	L6	7M
		OR			
6		A Hexagonal pyramid of side of base 25mm and axis 60mm long is resting on an edge of the base on HP. Its axis is parallel to HP and inclined at 45o to the VP. Draw its projections.	CO3	L6	14M

UNIT-IV

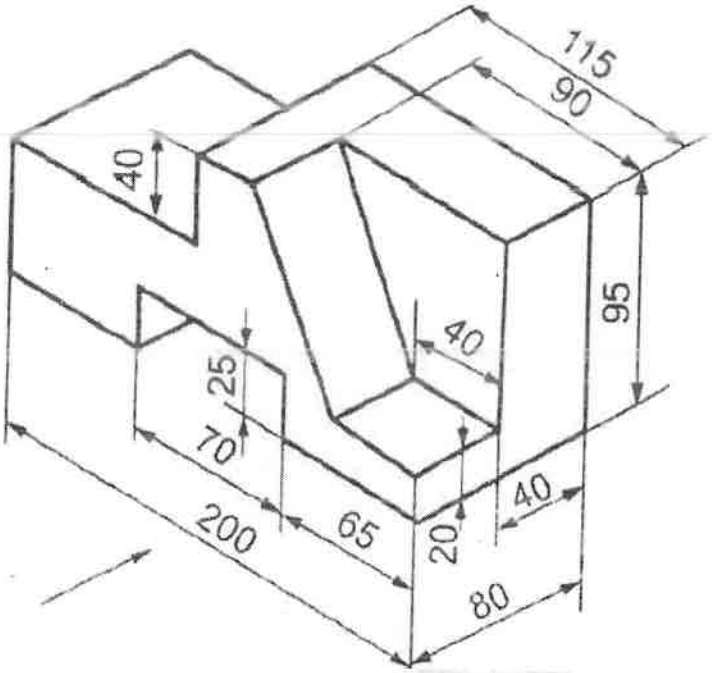
7		A hexagonal prism of side of base 30 mm and length of axis 75 mm is resting on its base on HP. It is cut by a section plane inclined at 450 to HP and passing through top corner. Draw the front and sectional top views of the solid and true shape of the section.	CO4	L6	14M
		OR			
8		A cone of base 50 mm diameter and height 65 mm rests with its base on HP. A section plane perpendicular to VP and inclined at 300 to HP bisects the axis of the cone. Draw the development of the lateral surface of the truncated cone.	CO4	L1	14M

UNIT-V

9	Draw the isometric view 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.	CO5	L1	14M

OR

10	Draw three views of the blocks shown pictorially in figure according to first angle projection.	CO6	L6	14M



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