O.P.Code: 23ME0302(b) | R23 | H.T.No.

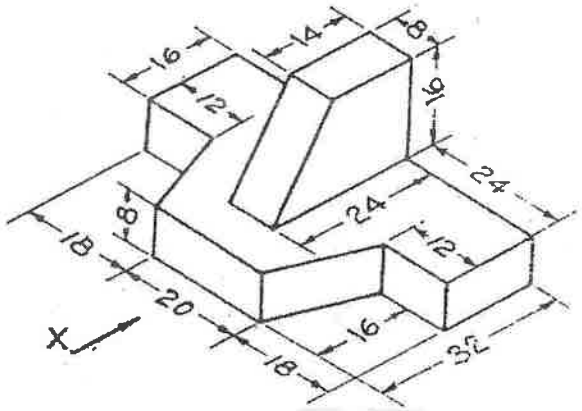
SIDDHARTH INSTITUTE OF ENGINEERING & TECHNOLOGY:: PUTTUR
(AUTONOMOUS)
B.Tech I Year II Semester Regular & Supplementary Examinations May/June-2026
ENGINEERING GRAPHICS
(Common to CCC, CIC, CAI & CIA)

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

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

		UNIT-I			
1	a	Construct a regular Hexagon of base side 30mm by general method.	L6	CO1	4M
	b	Construct a diagonal scale of S.F=1/(2.5 x 10^6) to read upto a single kilometer and long enough to measure 400 km. Mark a length of 254 km on it.	L6	CO1	10M
		OR			
2		Draw an Epi-cycloid of rolling circle of diameter 40 mm which rolls outside another circle (base circle) of 150 mm diameter for one revolution and construct a tangent and normal at any point on the curve.	L6	CO1	14M
		UNIT-II			
3		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	L1	CO2	14M
		OR			
4		A regular hexagonal plane of 30 mm side has a corner on HP, and its surface is inclined at 45^0 to HP. Draw the projections, when the diagonal through the corner, which is on HP makes 30^0 with VP.	L6	CO3	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.	L6	CO3	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.	L6	CO3	7M
		OR			
6		A pentagonal pyramid of base edge 30mm and axis 60mm rests on an edge of its base in the HP. Its axis is parallel to VP and inclined at 45^0 to the HP. Draw its projections.	L6	CO3	14M
		UNIT-IV			
7		A cube of side 40 mm is resting on HP on one of its faces, with a vertical face inclined at 30^0 to VP. It is cut by a section plane inclined at 45^0 to HP and passing through the axis at 8 mm from the top surface. Draw the projections of the solid and also show the true shape of the section.	L6	CO4	14M
		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 45^0 to HP. The section plane is passing through the mid-point of the axis. Draw the development of the surface of the cut pyramid.	L1	CO4	14M
		UNIT-V			
9		Draw three views of the blocks shown pictorially in figure according to first angle projection	L6	C06	14M



OR

10	a	Draw the isometric view of a hexagonal prism of base side 30mm and axis 70mm. The prism rests on its base on the HP with an edge of the base parallel to the VP.	L1	C05	8M
	b	Draw the isometric view of a circular lamina of diameter 50mm on all the three principal planes using four centre methods.	L1	C05	6M

***** END *****