O.P.Code: 23ME0302a	R23	H.T.No.									

SIDDHARTH INSTITUTE OF ENGINEERING & TECHNOLOGY:: PUTTUR
(AUTONOMOUS)
B.Tech I Year II Semester Regular & Supplementary Examinations June-2025
ENGINEERING GRAPHICS
CSE(Artificial Intelligence and Machine Learning)

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

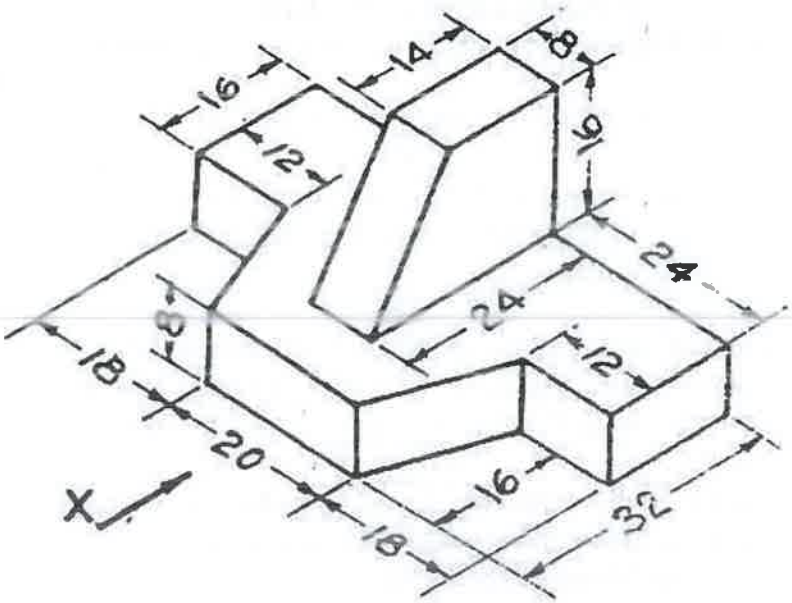
(Answer all the Questions **5 x 14 = 70** Marks)

UNIT-I

1	Construct an ellipse, with distance of the focus from the directrix as 50 mm and eccentricity as 2/3. Also draw normal and tangent to the curve at a point 40 mm from the directrix.	CO1	L6	14M
	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.	CO1	L6	14M
	UNIT-II			
3	Draw the projections of the following points, keeping the distance between the projectors as 25mm on the same reference lines. A – 20mm above HP and 30mm in front of VP B – 20mm above HP and 30mm behind VP C – 20mm below HP and 30mm behind VP D – 20mm below HP and 30mm in front of VP E – On HP and 30mm in front of VP F – On VP and 20mm above HP G – Lying on both HP and VP	CO2	L1	14M
	OR			
4	An equilateral triangular plane ABC of side 40mm has its plane parallel to VP and 20mm away from it. Draw the projections of the plane when one of its sides is (i) perpendicular to HP (ii) parallel to HP (iii) inclined to HP at an angle of 450.	CO3	L6	14M
	UNIT-III			
5	A triangular prism of base side 30mm and axis 50mm long, is resting on H.P on one of its bases i) perpendicular to V.P ii) inclined 300 to V.P. Draw its projections.	CO3	L6	14M
	OR			
6	A pentagonal prism of base side 30 mm and axis 60mm is resting on one of its rectangular faces on HP, with the axis parallel to VP. Draw its projections.	CO3	L6	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 300 to VP. It is cut by a section plane inclined at 450 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.	CO4	L6	14M
	OR			
8	A square pyramid of base 40 mm and axis 60 mm long, Its base lies on VP with its axis parallel to HP. A cut sectional plane, 600 to VP and bisect the axis. Draw the projections sectional front view and true shape of the section.	CO4	L6	14M

UNIT-V

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



OR

10	a	Draw the isometric view of a cylinder of base diameter 50mm and axis 60 mm the axis of the cylinder is perpendicular to the HP.	CO5	L1	8M
	b	Draw the isometric view of a circular lamina of diameter 50mm on all the three principal planes using four centre methods.	CO5	L1	6M

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