28/5/26 → 27/5/26

O.P.Code: 23ME0302(a)	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
CSE(Artificial Intelligence and Machine Learning)

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

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

UNIT-I

1	a	The vertex of a hyperbola is 60 mm from its focus. Draw the curve, if the eccentricity is 3/2. Draw a normal and a tangent at a point on the curve, 75 mm from the directrix.	L6	CO1	7M
	b	Develop the involute of a circle of side diameter 50 mm. Draw a tangent and normal to the curve at a distance of 100 mm from the centre of the circle.	L3	CO1	7M
		OR			
2		Construct a cycloid, given the diameter of the generating circle as 40mm.Draw a tangent and normal to the curve at a point on it,35mm from the base line.	L6	CO1	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	L1	CO2	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 and (iii) inclined to HP at an angle of 45^0.	L6	CO3	14M

UNIT-III

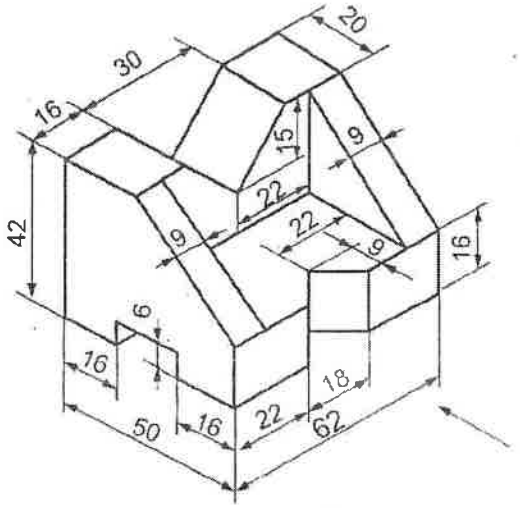
5		A triangular prism of base side 30mm and axis 50mm long, is resting on H.P on one of its bases i) perpendicular to V.P ii) inclined 30^0 to V.P. Draw its projections.	L6	CO3	14M
		OR			
6		A pentagonal prism of base side 30mm and axis 60mm has one of its rectangular faces on the HP and the axis inclined at 60 ° to the VP. Draw its projections.	L6	CO3	14M

UNIT-IV

7		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, 60^0 to VP and bisect the axis. Draw the projections sectional front view and true shape of the section.	L6	CO4	14
		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 30^0 to HP bisects the axis of the cone. Draw the development of the lateral surface of the truncated cone.	L1	CO4	14

UNIT-V

9		Draw three views of the blocks shown pictorially in figure according to first angle projection	L6	C06	14



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.	L1	C05	7I
	b	Draw the isometric view of a circular lamina of diameter 60 mm on all the three principal planes using four centre methods.	L1	C05	7I

***** END *****