SIDDHARTH INSTITUTE OF ENGINEERING & TECHNOLOGY:: PUTTUR
(AUTONOMOUS)
B.Tech. I Year I Semester Regular & Supplementary Examinations December/January-2024/2025
ENGINEERING GRAPHICS
(Electronics & Communications Engineering)

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

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

UNIT-I

1	Construct a hypo cycloid of a circle of 50 mm diameter, which rolls inside another circle of 180 mm diameter for one revolution counter clockwise.	CO1	L6	14M

OR

2	**a)** Draw the involute of a regular pentagon of side 20 mm.	CO1	L6	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.	CO1	L6	7M

UNIT-II

3	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 30^0 to VP.	CO2	L1	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.	CO2	L3	14M

UNIT-III

5	A cylinder of base diameter 50mm and axis 70 mm has a generator in the VP and inclined at 45° to the HP. Draw its projections.	CO3	L6	14M

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° to the HP. Draw its projections.	CO3	L6	14M

UNIT-IV

7	A square prism of side of base 40 mm and axis 80 mm long, is resting on its base on HP such that, a rectangular face of it is parallel to VP. Draw the development of the prism.	CO4	L6	14M

8   A cone of base 50 mm diameter and height 65 mm rests with its base on   CO4   L6   14M
    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.

UNIT-V

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

OR

10 Draw the isometric view of a pentagonal prism of base side 35 mm and   CO5   L1   14M
    axis 60mm. The prism rests on its base on the HP with an edge of the
    base parallel to the VP.

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