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	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

OR

2	a)Construct a scale of 1: 8 show decimeters and centimeters and to read upto 1m.Show a length of 7.6 dm on it.	CO1	L6	7M
	b)Construct a diagonal scale of S.F=1/(2.5 x 106) to read upto a single kilometer and long enough to measure 400 km. Mark a length of 254 km on it.	CO1	L6	7M

UNIT-II

3	Draw the projections of a straight line AB of 70 mm long, in the following positions:	CO2	L1	14M

a) parallel to both HP and VP and 20 mm from each.

b) Parallel to and 20 mm above the HP and on VP

c) Parallel to and 30 mm in front of VP and on HP

d) Perpendicular to HP,30mm in front of VP & one end 25mm above HP

e) Perpendicular to HP, 30 mm in front of VP & one end on HP

OR

4	A Line EF 85mm long has its end E is 25mm above HP and 20mm infront of VP. The top and front views of the line have lengths of 55mm and 70mm respectively. Draw the projections of the line. Find its true inclinations with VP & HP.	CO2	L3	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.	CO3	L6	14M

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 45^0 to the VP. Draw its projections.	CO3	L6	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.	CO4	L6	14M

OR

8 A cylinder of diameter of base 40 mm and axis 55 mm long, is resting on **CO4 L1 14M** its base on HP. It is cut by a section plane, perpendicular to VP and inclined at 45^0 to HP. The section plane is passing through the top end of an extreme generator of the cylinder. Draw the development of the lateral surface of the cut cylinder.

UNIT-V

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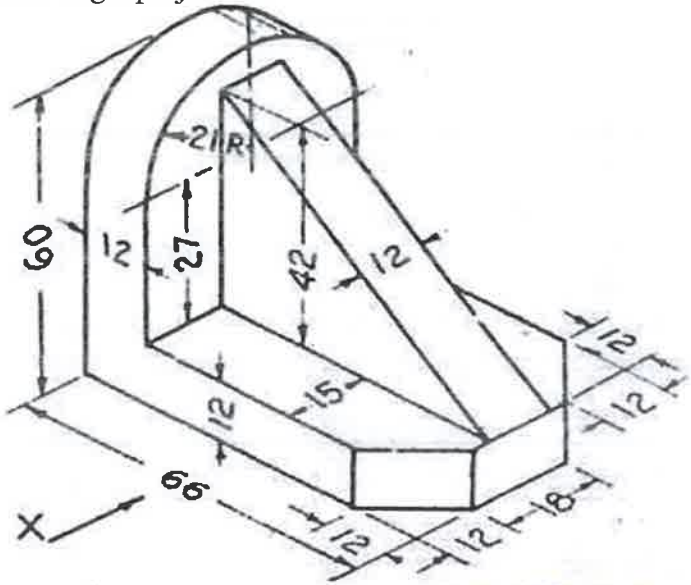
OR

10 Draw the isometric view of a hexagonal prism of base side 30mm and axis **CO5 L1 14M** 70mm. The prism rests on its base on the HP with an edge of the base parallel to the VP.

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