SIDDHARTH INSTITUTE OF ENGINEERING & TECHNOLOGY:: PUTTUR
(AUTONOMOUS)
B.Tech I Year II Semester Supplementary Examinations May/June-2024
ENGINEERING GRAPHICS & DESIGN
(Common to CG, AG, ME & EEE)

Time: 3 Hours **Max. Marks: 60**

(Answer all Five Units 5 x 12 = 60 Marks)

UNIT-I

1	a	Draw an ellipse having major axis is equal to 100 mm and the minor axis is equal to 70 mm. Use the concentric circle method.	CO1	L3	6M
	b	Draw a parabola having a distance of 50 mm between the focus and directrix. Draw a normal and tangent to the parabola at a point 35 mm from the focus.	CO1	L3	6M

OR

2	a	Construct a parabola with base 60 and length of the axis 40. Draw a tangent to the curve at point 20 from the base. Also locate the focus and directrix to the parabola.	CO1	L3	6M
	b	A ball thrown up in the air reaches maximum height of 45 meters and travels a horizontal distance of 75 metres. Trace the path of the ball, assuming it to be parabolic	CO1	L3	6M

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	L3	12M

OR

4	Draw the projections of a straight line AB of 70 mm long, in the following positions: a)Perpendicular to HP, 30 mm in front of VP and one end 25 mm above HP b) Perpendicular to HP, 30 mm in front of VP and one end on HP c) Perpendicular to HP and in VP and one end on HP	CO2	L3	12M

UNIT-III

5	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 300 to VP	CO3	L3	12M

OR

6	A cone of diameter 50 mm and axis 60 mm has its generator in the VP and the axis is parallel to the HP.Draw its projections.	CO3	L3	12M

UNIT-IV

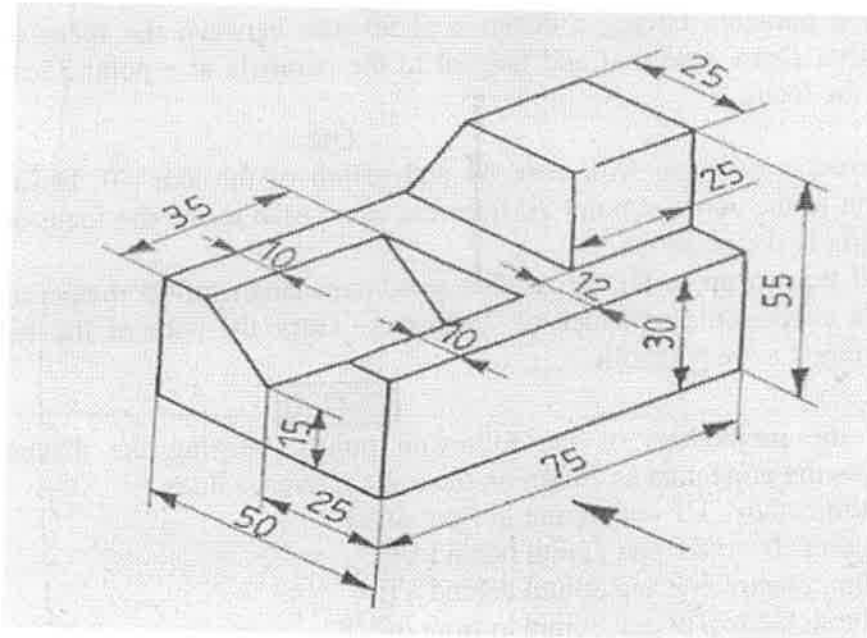|				
7	A cube of side 40 mm, is resting on HP on one of its faces, with a vertical face inclined at 30 degree to VP. It is cut by a section plane inclined at 45 degree to HP and passing through the axis at 8 mm from the top surface. Draw the projections of the solid and also show the true shape of the section.	CO4	L3	12M

OR

8	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	L3	12M

UNIT-V

9	Draw the isometric projection of a pentagonal prism of base side 35 mm and axis 60mm. The prism rests on its base on the HP with an edge of the base parallel to the VP.	CO5	L3	12M

OR

10	Draw three views of the blocks shown pictorially in figure according to first angle projection.	CO5	L3	12M

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