Reg. No:

SIDDHARTH INSTITUTE OF ENGINEERING & TECHNOLOGY:: PUTTUR
(AUTONOMOUS)
B.Tech I Year I Semester Regular & Supplementary Examinations March-2023
ENGINEERING GRAPHICS
(Common to EEE & ME)

Time: 3 hours   Max. Marks: 60

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

UNIT-I

1	Construct an ellipse when the distance between the focus and directrix is 35 mm and eccentricity is 3/4. Also draw the tangent and normal to any point on the curve.	CO1	L6	12M

OR

2	**a** Construct a parabola with base 120 and length of the axis 60 by using Rectangle method.	CO1	L6	6M
	b Construct a parabola in a parallelogram of sides 100 x 60 with an included angle of 75°	CO1	L6	6M

UNIT-II

3	A point A is 20mm above the HP and 50mm in front of the VP.Another point B is 40mm below the HP and 15mm behind the VP. The distance between the projectors of the points, measured parallel to xy, is 75mm. Draw the projections of the points.Draw lines joining their FVs and TVs	CO2	L1	12M

OR

4	Draw the projections of the following points, keeping the distance between the projectors as 25mm on the same reference lines.	CO2	L1	12M

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

UNIT-III

5	A regular hexagonal plane of 30 mm side has a corner on HP, and its surface is inclined at 45°to HP. Draw the projections, when the diagonal through the corner, which is on HP makes 30° with VP.	CO3	L6	12M

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	12M

UNIT-IV

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7	A pentagonal pyramid with edge of base 25 mm and axis 65mm long, its base is resting on HP. It is cut by a section plane, inclined at 60° to HP and perpendicular to VP it bisects the axis. Draw the projections and obtain the true shape of the section.	CO4	L6	12M

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° to HP bisects the axis of the cone. Draw the development of the lateral surface of the truncated cone. | CO4 | L1 | 12M |

UNIT-V

| 9 | Draw three views of the blocks shown pictorially in figure according to first angle projection. | CO6 | L6 | 12M |
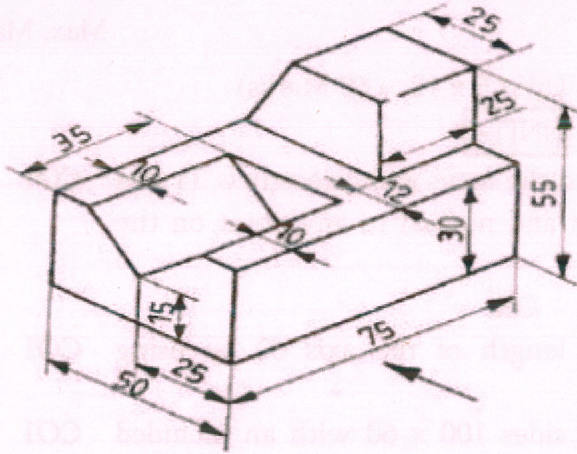
OR

| 10 | Draw the isometric projection of a hexagonal prism of base side 30 mm and axis 70mm. The prism rests on its base on the HP with an edge of the base parallel to the VP. | CO5 | L1 | 12M |

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