Hall Ticket Number:

Code No. : 12325 AS N/O

VASAVI COLLEGE OF ENGINEERING (AUTONOMOUS), HYDERABAD
Accredited by NAAC with A++ Grade
B.E. II-Semester Advanced Supplementary Examinations, September-2023
Basic Engineering Drawing
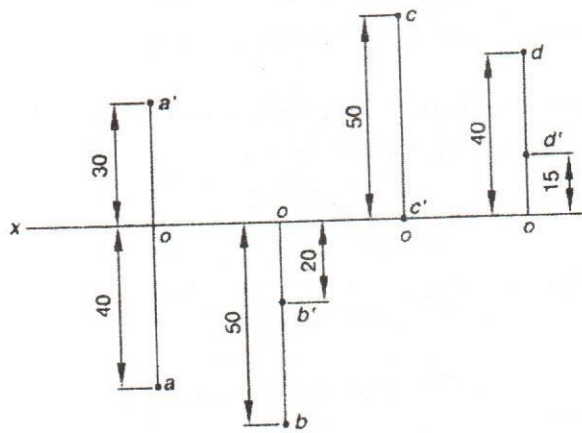(Common to EEE & ECE)

Time: **3 hours**

Max. Marks: **60**

*Note: Answer all questions from **Part-A** and any **FIVE** from **Part-B***

Part-A (10× 2 = 20 Marks)

Q. No.	Stem of the question	M	L	CO	PO
1.	What are the drawing tools that are integrated in a mini drafter and brief their utility	2	1	1	1
2.	Mention and draw the type of line used to represent a cutting plane?	2	1	1	1
3.	Discuss about types of Multi-view projections and mention the method prescribed by Indian Standards	2	1	2	1
4.	A 50 mm long line PQ is parallel to both the H.P. and the V.P. It is 25 mm in front of the V.P. and 60 mm above the H.P. Draw its projections and determine the traces	2	2	2	1
5.	A triangular plane is in the form of an isosceles triangle of base side 30 mm and altitude 40 mm. Its surface is perpendicular to both H.P. and V.P. Draw its projections when the base side is parallel to the V.P.	2	1	3	1
6.	A hexagonal plane of side 30 mm has an edge on the H.P. The surface is inclined at 45° to the H.P. and perpendicular to the V.P. Draw its projections	2	2	3	1
7.	Define solids of revolution and mention specific examples	2	1	4	1
8.	A triangular prism of base side 30 mm and axis 60 mm has one of its faces in the H.P. Draw its projections when the axis is perpendicular to V.P	2	1	4	1
9.	Differentiate isometric view and isometric projection	2	1	5	1
10.	Describe the position of a cube so as to obtain isometric projection.	2	1	5	1

Part-B (5 × 8 = 40 Marks)

11. a)	Draw the polygons square and pentagon with a common base of 25mm	3	2	1	2
b)	Construct an ellipse when the distance of the focus from the directrix is equal to 50 mm and eccentricity is ¾ . Also draw the normal and tangent at any location on the curve	5	3	1	1,2

12. a)	The following diagram presents projections of points A, B, C, D. Describe the positions of points in words with respect to principle planes	3	2	2	1,10

b)	A 70 mm long line PQ, has its end P 20 mm above the H.P. and 30 mm in front of the V.P. The line is inclined at 45° to the H.P. and 30° to the V.P. Draw its projections and mark traces.	5	4	2	1,2
13. a)	A rhombus of diagonals 70 mm and 45 mm is placed on an end of the major diagonal on the H.P. Its surface is inclined to the H.P. and perpendicular to the V.P. such that the top view appears as a square. Draw its projections and determine inclination of the rhombus with the H.P.	3	2	3	1,10
b)	A pentagonal plane of side 30 mm is resting on a corner in the H.P. The side opposite to the corner in the H.P. is parallel to and 35 mm above H.P. and inclined at 45° to the V.P. Draw its principal views.	5	3	3	1,10
14. a)	A hexagonal pyramid with a base side 30 mm and axis 60 mm has an edge of its based on the ground. Its axis is inclined at 30° to the ground and parallel to the V.P. Draw its projections.	5	4	4	1,10
b)	A square prism of base side 40 mm and axis 60 mm is resting on its base on the H.P. Draw its projections when a side of the base is parallel to the V.P	3	2	4	1,10
15. a)	Draw the isometric projection of a sphere of diameter 60 mm truncated by a horizontal plane at a height of 20 mm from the centre plane	3	2	5	2,10
b)	A sphere of diameter 50 mm is surmounted centrally on the top of a square block of side 60 mm and thickness 20 mm. Draw the isometric view of the arrangement	5	3	5	2
16. a)	Discuss methods of placing dimensions with neat sketches demonstrating them. Also mention the specific utility of the methods	4	2	1	1