Sub. Code 241AG	Hall Ticket Number										VR24

VIGNAN'S INSTITUTE OF MANAGEMENT AND TECHNOLOGY FOR WOMEN

(An Autonomous Institution)

I-B.Tech.–I-Semester Regular Examinations, February-2025

COMPUTER AIDED ENGINEERING GRAPHICS

(CSE)

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

(Answer All Questions)

Note: Question paper consists of Part-A & Part-B.

- **Part-A** for 10M, ii) **Part-B** for 50marks
- **Part A** is compulsory, consists of 10 sub questions from all units carrying equal marks.
- **Part-B** consists of **10 questions** (numbered from 2 to 11) carrying **10marks** each. From each unit there are 2 questions and the students should answer one of them. Hence the student should answer **5 questions** from **Part-B**.

PART-A **(10Marks)**

1	a.	Types of conic sections?	**1M**
1	b.	Differentiate epicycloid and hypocycloid.	**1M**
1	c.	A point 'B' is 20mm below HP & 35mm behind of VP Draw its projections	**1M**
1	d.	What is the difference between regular plane and irregular plane?	**1M**
1	e.	What is meant by Auxiliary Plane?	**1M**
1	f.	What is the difference between true shape and sectional view?	**1M**
1	g.	List out the different development methods	**1M**
1	h.	Why development is required?	**1M**
1	i.	Explain the terms isometric length and true length.	**1M**
1	j.	Draw the Isometric view of circle of 50 mm diameter.	**1M**

PART-B **(50Marks)**

2		Construct Epicycloid, given radius of generating and directing circle as 25 mm and 75mm respectively. Draw a normal and tangent at any point on the curve.	**10M**
		OR	
3		If 1 cm long line on a map represents a real length of 4m, calculate the RF and draw the diagonal scale long enough to measure up to 50meter. Show a distance of 44.5m on the scale.	**10M**
4		A 80mm long line PQ is inclined at 45^0 to HP and 30° to the VP the end P is 40mm in front of VP and lying in the HP. Draw the projection of the line.	**10M**
		OR	
5		A hexagonal plane of side 30 mm has a corner on the ground its surface is inclined at 45^0 to the HP and perpendicular to the VP draw its projections when the diagonal through the corner in the HP is parallel to the VP.	**10M**

6 A Cylinder of base 30 mm diameter and axis 60 mm long is resting on a point of its base on HP such that the axis is inclined at 30^0 to the HP. Draw the projection of the cylinder when the top view of the axis is inclined 45^0 with XY line. **10M**

OR

7 A pentagonal pyramid of base side 30 mm and axis height 65 mm long is resting on HP with its base such that a side is parallel to VP, it is cut by a sectional plane inclined at an angle of 45^0 to the HP and bisecting the axis. Draw the front view, sectional top view and true shape of the section. **10M**

8 A pentagonal prism of base side 30 mm and axis 60 mm has an edge of its base in the VP and inclined 45^0 to the HP. its axis is inclined at 30° to the VP. Draw its projections. **10M**

OR

9 A cylinder of base 50mm diameter and axis 80mm long is resting on its base on the HP. It has a circular hole of the 30mm diameter, drilled through a centrally such that the axis of the hole is perpendicular to VP and bisects the axis of the cylinder at right angles. Develop the lateral surface of the cylinder. **10M**

10 Prepare an isometric view of the object shown in figure 1. All the dimensions are in mm. **10M**

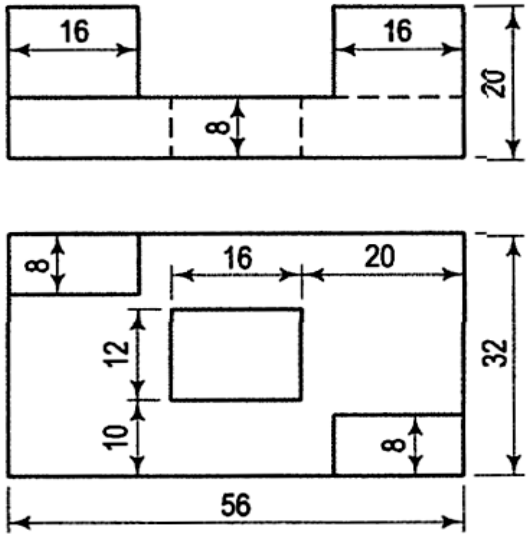

Figure: 1

OR

11 Draw the a) Front view b) Top view of the figure 2. **10M**
All dimensions are in mm.

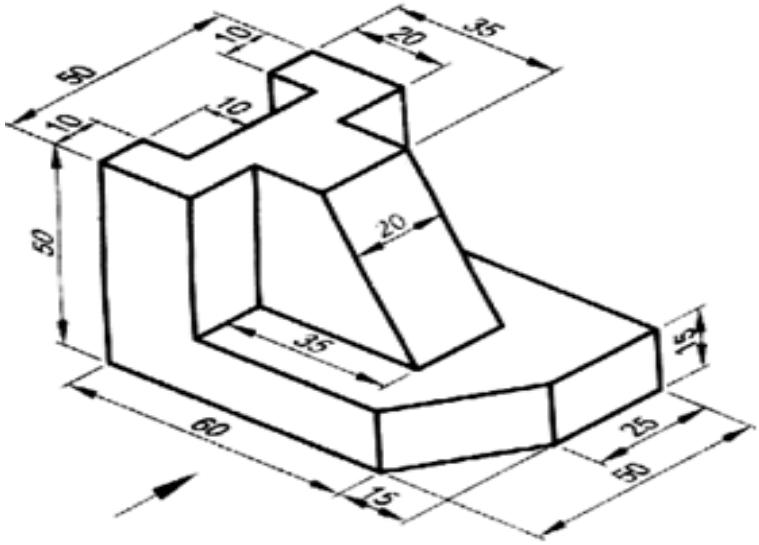

Figure: 2

*****VMTW*****