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.	Write the difference between plain scale and diagonal scales.	1M
1	b.	What is an epicycloid?	1M
1	c.	What is a Plane?	1M
1	d.	What is orthographic projection?	1M
1	e.	What are the names of the solid shapes?	1M
1	f.	How the section lines are represented in sections?	1M
1	g.	What is meant by development of surfaces?	1M
1	h.	Write the procedure of parallel line method.	1M
1	i.	Define Isometric view.	1M
1	j.	List the types of projections.	1M

PART-B **(50Marks)**

2	Draw a hyperbola when the eccentricity is 3/2 and the distance between focus and directrix is 55mm. Also draw tangent and normal to the curve at a point 40mm from axis.	**10M**

OR

3	A circle of 60 mm diameter rolls along a straight line without slipping. Construct the curve traced out by a point *P* on the circumference, for one complete revolution of the circle. Name the curve. Draw a tangent to the curve at a point on it 50 mm from the line.	**10M**
4	A line AB of length 70 mm is inclined at 30^0 with HP and 45^0 with VP. The end A is 20 mm above HP and 30 mm in front of VP. Build the projections of the line and find its apparent inclination angles with respect to the principal planes.	**10M**

OR

5	A regular hexagonal lamina of 30 mm sides rests on HP on one of its sides. The side which is on HP makes 60^0 to the VP and the surface of the lamina is inclined to HP at 45^0. Build the front view and top view	**10M**

of the lamina in its final position.

6 Draw the projections of the following solids situated in their respective positions, taking a side of base 40mm long or the diameter of the base 50mm long and the axis 65mm long. **10M**

(i) A hexagonal pyramid, base on the H.P. and a side of the base parallel to and 25mm in front of the V.P.

(ii) A cone,base in the H.P. axis vertical and 40mm in front of the V.P.

OR

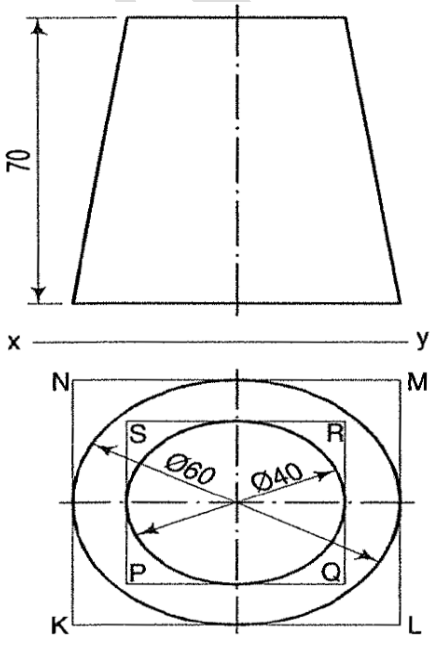
7 A hexagonal prism, edge of base 20 mm and axis 50 mm long, rests with its base on HP such that one of its rectangular faces is parallel to VP. It is cut by a plane perpendicular to VP, inclined at 45° to HP and passing through the right corner of the top face of the prism. Draw the front view and sectional top view. **10M**

8 A square pyramid of side of base 40 mm and axis 80 mm long has its base on HP with two base edges parallel to VP. A section plane perpendicular to VP and inclined at 45^0 to HP and bisects the axis. Draw the development of the lower portion of the pyramid on the HP. **10M**

OR

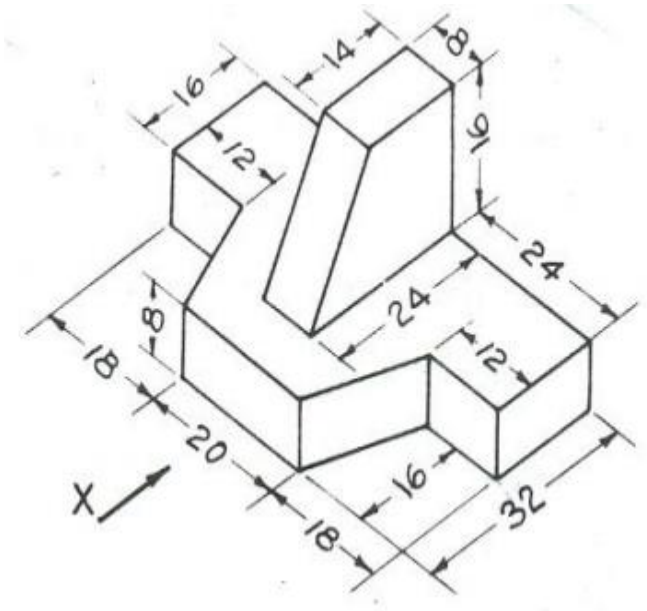
9 Draw the development of lateral surface of a cone having the base 40mm diameter and 60mm long. It's axis is cut by a section plane passing through the midpoint of the axis making an angle of 30^0 with base. **10M**

10 The projection of the frustum of the cone is shown in fig. Draw its isometric view. **10M**



OR

11 Draw the front view, side view from the right, and top view of the block as shown in figure (All dimensions are in mm) **10M**



.

*****VMTW*****