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PACE INSTITUTE OF TECHNOLOGY & SCIENCES::ONGOLE  
(AUTONOMOUS)

I B.TECH I SEMESTER END REGULAR EXAMINATIONS, FEB - 2023  
ENGINEERING GRAPHICS  
(Common to ME,ECE Branches)

Time: 3 hours

Max. Marks: 70

Answer all the questions from each UNIT (5X14=70M)

Q.No.	Questions	Marks	CO	KL
UNIT-I				
1.	a) A fixed point is 75 mm from a fixed straight line. Draw the locus of a point <i>P</i> moving such a way that its distance from the fixed straight line is equal to its distance from the fixed point. Name the curve.	[10M]	1	
	b) Construct a regular hexagon of 40 mm side	[4M]	1	
OR				
2.	a) Draw the projections of the following, points on the same ground (i) Point A is 35 mm above HP and 50 mm behind VP (ii) Point B is 50 mm below HP and 45 mm in front of VP (iii) Point C is on HP and 35 mm behind VP (iv) Point D 25 mm above the HP and on the VP (v) Point E is 40 mm above the HP and 25 mm in front of the VP.	[5M]	1	
	b) Construct an ellipse when the distance of the focus from the directrix is equal to 80 mm and eccentricity is 3/5.	[9M]	1	
UNIT-II				
3.	a) The front view of a 7.5cm long line measures 5.5cm. The line is parallel to the HP and one of its ends is in the VP and 2.5cm above the HP. Draw the projections of the line and determine its inclination with VP.	[7M]	2	
	b) A line AB 75 mm long is inclined at 45° to H.P and 30° V.P Draw its projections when end A is 20mm above H.P and 30mm in front of V.P.	[7M]	2	
OR				
4.	Line AB, 65mm long, has its end A 20mm above the HP and 25mm in front of the VP. The end B is 40mm above the HP and 65mm in front of the VP. Draw the projections of AB and show its inclinations with the HP and the VP.	[14M]	2	
UNIT-III				
5.	a) A pentagonal plate of 35 mm side is perpendicular to VP and parallel to HP. One of its edges is perpendicular to VP. Draw its projections.	[7M]	3	
	b) An equilateral triangular lamina of side 30mm is parallel to HP and perpendicular to VP One of its sides is 20 mm in front of VP and 30 mm above HP. Draw its projections.	[7M]	3	
OR				
6.	Draw the projections of a pentagonal prism, base 25 mm side and axis 50 mm long resting on one of its rectangular faces on the HP with the axis inclined at 45° to the V.P.	[14M]	3	
UNIT-IV				
7.	a) A hexagonal prism, having a 40 mm base side and a 90 mm axis height, has its two sides of base parallel to VP. Show the development of the lateral surface of the prism.	[7M]	4	

