

THE KAVERY ENGINEERING COLLEGE*(An Autonomous Institution)***B.E/B.TECH DEGREE END SEMESTER THEORY EXAMINATIONS, NOV /DEC 2024***Second Semester***GE3251 – Engineering Graphics****(Common to All Branches)***Regulations - 2021**Duration : 3 Hrs**Maximum : 100 Marks***PART – A (ANSWER ALL QUESTIONS) (Marks 5*20 = 100)**

<i>Q.No</i>	<i>Questions</i>	<i>BLT</i>	<i>CO</i>	<i>Marks</i>
1.	a Draw a hyperbola when the distance of the focus from the directrix is 70 mm and the eccentricity is 1.5.	AP	1	20
	Or			
	b A fixed point is 30 mm from a fixed straight line. Draw the locus of a point 'R' moving such a way that its distance from the fixed point is twice its distance from the fixed straight line. Name the curve. Draw the tangent and normal at any point on the curve.	AP	1	20
2.	a A line PQ has its end P 15mm above HP and 20mm in front of VP. The end Q is 60mm above HP and the line is inclined at 30° to HP. The distance between the end projectors of the line is 55mm. Draw the projections and find its inclination with VP.	UN	2	20
	Or			
	b A rectangular lamina 40 x 70 mm size is standing on one of its corner with the sides equally inclined to HP. The surface of the lamina is inclined at an angle 30° to VP. The diagonal passing through the resting corner makes an angle of 55° with HP. Draw the projection of the rectangular lamina.	UN	2	20
3.	a A hexagonal prism, side of base 24 mm and axis 55 mm long rests with one of its edges on HP such that the base containing that edge makes an angle of 45° to HP and its axis is parallel to VP. Draw its projections.	AP	3	20
	Or			
	b A cone of 30mm diameter and height 70mm rests on the ground on one of its base circle points such that the apex is 20mm from VP. The nearest point of the base is 50mm from VP and the base is perpendicular to HP. Draw its projection.	AP	3	20
4.	a A cone of base 60mm and height 80mm is resting with its base on HP. An insect starts from a point on the circumference of the base goes round the solid and reaches the starting point in the shortest path. Find the distance travelled by insect and also the projections of the path followed by it.	AN	4	20

Or

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| | b | A hexagonal pyramid of base of side 25mm and altitude 50mm is resting vertically on its base on the ground with two of the sides of base perpendicular to VP. It is cut by a plane perpendicular to VP and inclined at 40° to HP. The plane bisects the axis of the pyramid. Draw the development of lateral surface of the pyramid. | AN | 4 | 20 |
| 5. | a | A cylinder of base diameter 30 mm and axis 50 mm is placed on its base centrally on the top of a square slab of side 50 mm and thickness 20 mm. Draw the isometric projection of the combination of solids to full scale. | AP | 5 | 20 |
| | | Or | | | |
| | b | Draw the perspective view of a square prism of base side 20 mm and height 35 mm resting on an end on the ground with a rectangular face parallel to the picture plane. The axis of the prism is 25 mm behind the picture plane and 25 mm to the right of the eye. The eye is 50 mm in front of PP and 50 mm above the ground. | AP | 5 | 20 |