R17 Regulation **Subject Code: 1E2AJ**

TKR COLLEGE OF ENGINEERING AND TECHNOLOGY

(Autonomous, Accredited by NAAC with 'A+' Grade)

B.Tech I Year II Semester Supplementary Examinations, January 2024

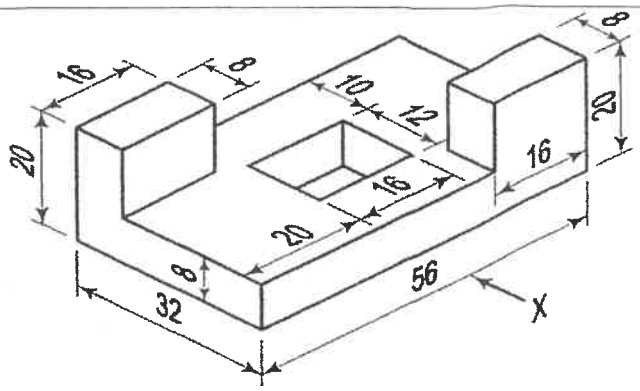
Engineering Graphics

(Common to EEE,ECE,CSE & IT)

Maximum Marks: 70 Date:31.01.2024 **Duration: 3 Hours**

Answer All the following questions. (5X14M=70Marks)

1	A circle of 40 mm diameter rolls on a straight line for Half revolution and for the remaining Half on vertical line draw the curve traced by a point P on circumference of the circle taking the top most point on the revolving circle as the initial position of the generating point. [14M]
	OR
2	A Fixed point is at a distance of 50mm from fixed straight line trace the path of the curve if e =2/3. Draw tangent and normal to it at a dist. of 40mm from directrix. [14M]
3	A line AB 100mm long has its front view inclined at an angle of $45^0$to XY. The point a is in the VP and 25mm above the HP and 30^0 inclined to VP. [14M]
	OR
4	The Top view of a 80 mm long line measures 55mm while its front view measures 65mm. the end of a line AB is 40mm above HP and 30mm in front of VP. Consider end B as nearer to HP and farther to VP. [14M]
5	A Square lamina ABCD with side 40mm has its corner A in the HP its diagonal AC is inclined at 45° to HP. While the diagonal BD is parallel to HP and inclined at 30° to VP. Draw its projections. [14M]
	OR
6	A cylinder of base diameter 50mm and height 65mm rests on its base on HP. It is cut by a plane perpendicular to VP and inclined at 30^0 to HP and meets the axis at a distance 30mm from the base. Draw the front view, sectional top view. [14M]
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. Develop the lateral surface of the prism. [14M]
	OR
8	Draw the development of a cone of diameter 40mm axis length 65mm is sectioned by a plane inclined at 35° to HP and passing through midpoint of the axis of the cone. [14M]
9	Draw the front view, top view and side view of the figures shown below. All dimensions are in mm. [14M]



OR

10 Draw front View top vies and side view for the following figure:p [14M]