



R25 Regulation

Subject code:5ES1AH & 5ES1AJ

**TKR COLLEGE OF ENGINEERING AND TECHNOLOGY**

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

**B.Tech I Semester Regular Examinations, January 2026**

**ENGINEERING DRAWING AND COMPUTER AIDED DRAFTING**

(Common to EEE & CSE(AI&ML))

Maximum Marks: 60

Date: 07.01.2026

Duration: 3 Hours

Note: 1. Consists of 10 questions unit wise choice. Answer any 5 questions.  
2. Each question carries equal marks.

Answer all the questions.		(5X12M=60Marks)	Marks	CO	BTL
1	a) Draw a parabola with focus at 50mm. b) Two straight lines OA and OB make an angle of 90° between them. P is a point 40 mm from OA and 50 mm from OB. Draw a hyperbola through P, with OA and OB as asymptotes, making at least ten points.		6M	1	L3
			6M		L3
OR					
2	Show by means drawing that when the diameter of the directing circle is twice that of the generating circle, the hypocycloid is a straight line. Take the diameter of the generating circle equal to 50mm.		12M	1	L4
3	a) A point B is on the HP and 30mm behind the VP and also point C is 20mm in front of VP and 30 mm above the HP draw the projections of the point B and C. b) A 75 mm long line PQ is inclined at an angle of 30° to the H.P. The end P is 20 mm above the H.P. and on the V.P. The end Q is 60 mm in front of the V.P. Draw the projections of the line.		4M	2	L2
			8M		L2
OR					
4	Draw the projections of a circle of 50 mm diameter resting in the H.P. on a point A on the circumference, its plane inclined at 45 degrees to the H.P. and the diameter AB making 30 degrees angle with the V.P.		12M	2	L2
5	A pentagonal prism having base 30mm side and axis 60mm long is resting on an edge of its base on the HP such that its axis is inclined at 60° to the HP & parallel to VP.		12M	3	L3
OR					
6	Draw the top and front views of a rectangular pyramid of sides of base 40x 50 mm and height 70 mm when it lies on one of its larger triangular faces on HP. The longer edge of the base of the triangular face lying on HP is inclined at 60° to VP in the top view with the apex of the pyramid being nearer to VP.		12M	3	L3

7	A square pyramid, base 40 mm side and axis 65 mm long, has its base on the HP and all the edges of the base equally inclined to the VP. It is cut by a section plane, perpendicular to the VP, inclined at $45^\circ$ to the HP and bisecting the axis. Draw its sectional top view, sectional side view and true shape of the section.	12M	4	L3
OR				
8	A right circular cone base 30 mm side and height 50 mm rests on its base on H.P. It is cut by a section plane perpendicular to the V.P., inclined at $45^\circ$ to the H.P. and bisecting the axis. Draw the projections of the truncated cone and develop its lateral surface.	12M	4	L3
9	Draw the isometric view of a hexagonal prism, with side of base 25 mm and 60 mm long. The prism is resting on its base on HP, with an edge of the base parallel to VP.	12M	5	L3
OR				
10	Draw the elevation, plan and side view of the picture shown in the figure. All the dimensions are in mm.	12M	5	L3
				