R18 Regulation *Subject code:2E2AK*

TKR COLLEGE OF ENGINEERING AND TECHNOLOGY

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

B.Tech II Semester Supplementary Examinations, June 2026

ENGINEERING GRAPHICS

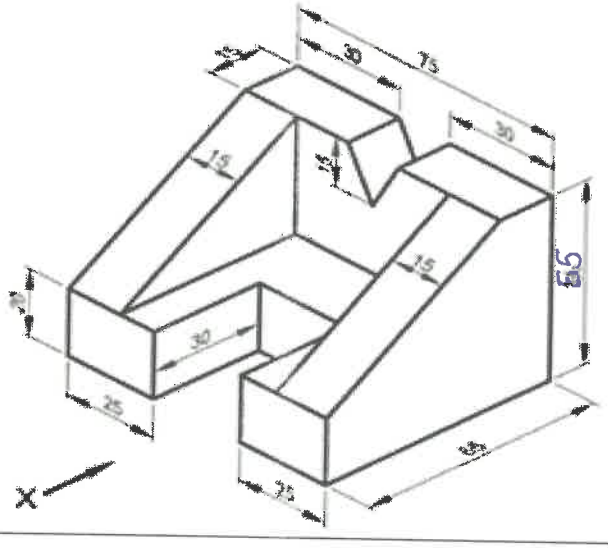
(Common to ECE & CSE)

Maximum Marks: 70 Date: 22.06.2026 Duration: 3 hours

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

Part-A

	All the following questions carry equal marks (5X14M=70 Marks)	Marks	CO	BTL
1	Construct a parabola when the distance between focus and the directrix is 50mm. Draw a tangent and normal at any point P on the curve.	14M	1	L1
	OR			
2	A coin of 40mm diameter rolls over a horizontal table without slipping. A point on the circumferences of the coin is in contact with the table surface in the beginning and after one complete revolution. Draw the cycloidal path traced by the point. Also draw tangent and normal at any point on the curve.	14M	1	L1
3	One end P of a line PQ 70mm long is 35mm infront of the V.P. and 25mm above the H.P. The line is inclined at 40^0 to the H.P. and 30^0 to the V.P. Draw the projections of PQ.	14M	2	L1
	OR			
4	A square lamina of side 30mm having a hole of 15mm diameter at the centre is perpendicular to H.P. and resting on one of its edge on H.P. Lamina makes an angle of 30^0 to V.P. Draw its projections.	14M	2	L1
5	A cone of diameter 60mm and height 60mm is resting on the H.P. on one of its generators. Draw its projections if its axis is parallel to the V.P.	14M	3	L1
	OR			
6	A circle of diameter 50mm rolls on a horizontal line for one revolution trace the path of curve. Also draw tangent and normal to it.	14M	3	L1
7	The end A of a line AB is 20mm above and 30mm in front of VP, While the end B is 50mm above and 55mm infront of VP. The distance between projectors are 60mm apart Draw the projections and determine its inclinations.	14M	4	L1
	OR			
8	A hexagonal pyramid of side 25mm, axis 75mm long lies with one of its triangular faces on the H.P. and its axis is parallel to the V.P. draw its projections.	14M	4	L1

9	A pentagonal prism of base side 30mm and axis height 75mm is resting on one of its ends on the H.P. with one of its lateral faces parallel to V.P. It is cut by a plane perpendicular to V.P. and inclined at 45^0 to H.P., bisecting the axis. Draw the development of lateral surfaces of the lower portion of the prism.	14M	5	L1
	OR			
10	Draw the three orthographic views of the given figure. 	14M	5	L1