R22 Regulation *Subject code:4E1DC*

TKR COLLEGE OF ENGINEERING AND TECHNOLOGY

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

B.Tech I Semester Supplementary Examinations, June 2026

COMPUTER AIDED ENGINEERING GRAPHICS

(IT)

Maximum Marks: 60 Date: 20.06.2026 Duration: 3 hours

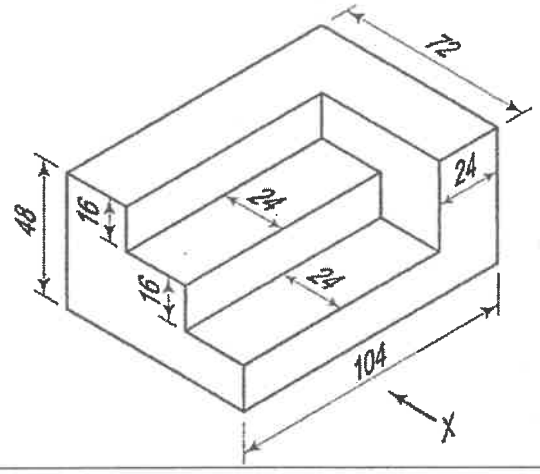
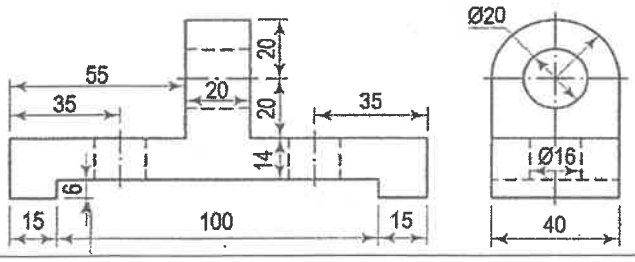
Note: **1.This question paper contains two parts A and B.**
2. Part A is compulsory which carries 20 marks. Answer all questions in Part A.
3. Part B consists of 5 Units. Answer any one full question from each unit.
4. Each question carries 10 marks and may have a, b, c, d as sub questions.

Part-A

All the following questions carry equal marks (10X1M=10 Marks)		Marks	CO	BTL
1.a	Define the conic sections.	1M	1	L1
b	Define Eccentricity.	1M	1	L1
c	In IV quadrant, the front will be _____ the reference line.	1M	2	L1
d	Initial work and construction lines are drawn using _____ pencil.	1M	2	L1
e	Define a cone.	1M	3	L1
f	What is meant by prism.	1M	3	L1
g	When the surfaces of a solid are laid out on a plane, the figure obtained is called its _____	1M	4	L1
h	Every line on the development of surfaces must be the _____ of the corresponding edge on the surface	1M	4	L1
i	When the projectors are parallel to each other and also perpendicular to the plane, the projection is called _____	1M	5	L1
j	In orthographic projection each projection view represents how many dimensions of an object _____	1M	5	L1

Part-B

Answer All the following questions. (5X10M=50Marks)		Marks	CO	BTL
2	Draw a cycloid of a circle of diameter 60mm for one revolution. Also draw a tangent and a normal to the curve at a point 35mm above the base line.	10M	1	L2
	OR			
3	Draw a hypo cycloid of a circle of diameter 60mm for one revolution. Also draw a tangent and a normal to the curve at a point 35mm above the base line.	10M	1	L2
4	A Pentagonal Plane of side 40mm has a circular hole of dia 20 is inclined to HP at 30° and its surface is inclined to VP at 45°. Draw its Projections draw its projections when one of the side is perpendicular to HP.	10M	2	L2
	OR			

5	A line AB 75mm long is inclined to HP at 30° and to VP at 45°. Draw its projections when one of the end is 20 above HP and 30 in front of VP.	10M	2	L2
6	A Hexagonal pyramid of base side 30 mm and axis length 65 mm is inclined to H.P at 30^0 and its axis is inclined to V.P at 45^0 draw its projections.	10M	3	L2
	OR			
7	A cylinder of base diameter 30 mm and axis length 60 mm is inclined to H.P at 30 and its axis is inclined to V.P at 45^0. Draw its projections.	10M	3	L2
8	A pentagonal prism, having a base 30mm side and 70mm long axis is resting on its base on H.P such that one of its rectangular surfaces is parallel to V.P. It is cut by an auxiliary inclined plane at 45^0 and passes through the midpoint of the axis. Draw the developments of truncated prism.	10M	4	L2
9	A cylinder base diameter 50 mm and axis length 60 mm is resting with its base on HP and it is cut by a section plane perpendicular to the V.P and inclined at 45° to the H.P and intersecting the axis at 15 mm from the top of the axis Draw its development.	10M	4	L2
10	Draw the front view, top view and side view of the figures shown below. All dimensions are in mm. 	10M	5	L2
	OR			
11	Draw an isometric diagram from given orthographic projection views shown in figures. 	10M	5	L2