R22 Regulation *Subject code:4E2AH*

TKR COLLEGE OF ENGINEERING AND TECHNOLOGY

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

B.Tech II Semester Supplementary Examinations, January 2026

COMPUTER AIDED ENGINEERING GRAPHICS

(CSE(DS))

Maximum Marks: 60 Date: 24.01.2026 Duration: 3 hours

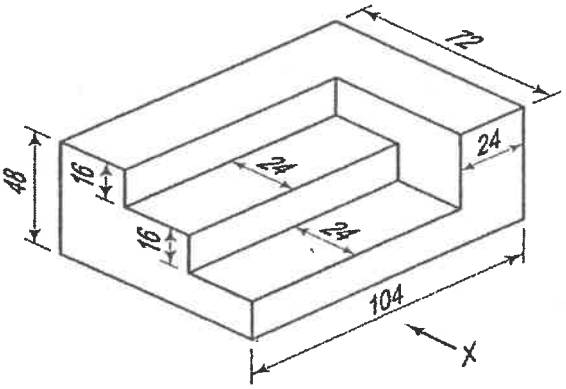
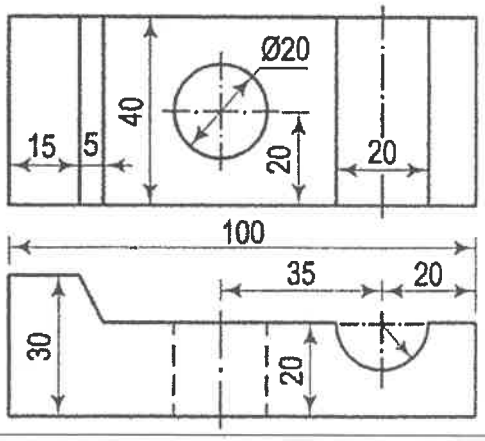
Note: 1.This question paper contains two parts A and B.
2. Part A is compulsory which carries 20 marks. Answer all questions in Part A.
3. Part B consists of 5 Units. Answer any one full question from each unit.
4. Each question carries 10 marks and may have a, b, c, d as sub questions.

Part-A

All the following questions carry equal marks (10X1M=10 Marks)		Marks	CO	BTL
1.a	Define Eccentricity.	1M	1	L1
b	Define a Cycloid.	1M	1	L1
c	In IV quadrant, the front will be _____ the reference line	1M	2	L1
d	What are polygons?	1M	2	L1
e	Define a cylinder.	1M	3	L1
f	What is meant by generator?	1M	3	L1
g	Write applications of development of surface.	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	Construct a Parabola when the distance of the focus from the directrix is 50mm. Also draw a tangent and normal at point 70mm from the directrix.	10M	1	L2
4	A line AB 75mm long is inclined to HP at 30° and to VP at 45°. Draw is projections when one of the end is 20mm above HP and 30mm in front of VP.	10M	2	L2
5	Draw the projections of a circular plane with a 50mm diameter, resting on a point A on its circumference in the HP such that its surface is inclined at 30° to HP and it is inclined to VP at 45° draw its projections.	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 30^0 and its axis is inclined to V.P at 45^0 . Draw its projections.	10M	3	L2
8	A square pyramid of base side 25 mm and altitude 50 mm rests on it base on the HP with two sides of the base parallel to the VP. It is cut by a plane bisecting the axis and inclined a 30° to the base. Draw the development of the lateral surfaces of the lower part of the cut pyramid.	10M	4	L2
	OR			
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