R22 Regulation *Subject code: 4E1DA & 4E1DC*

TKR COLLEGE OF ENGINEERING AND TECHNOLOGY

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

B.Tech I Semester Regular/Supplementary Examinations, January 2024

Computer Aided Engineering Graphics

(Common to EEE & IT)

Maximum Marks: 60 Date: 20.01.2024 Duration: 3 hours

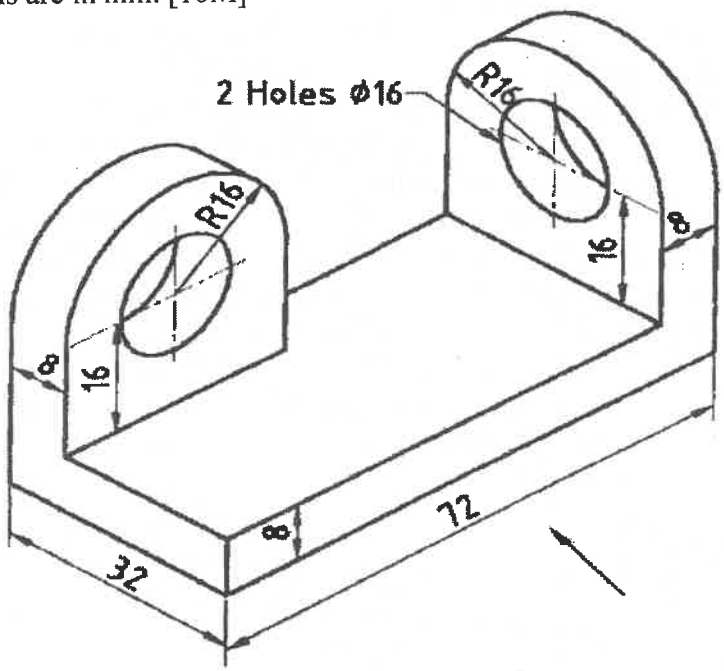
Note:
1. **This question paper contains two parts A and B.**
2. **Part A is compulsory which carries 10 marks. Answer all questions in Part A.**
3. **Part B consists of 5 Units. Answer any one full question from each unit.**
4. **Each question carries 10 marks and may have a, b, c, d as sub questions.**

Part-A

		All the following questions carry equal marks (10x1M=10 Marks)	CO No.	Bloom Tx
1.	a	Define Eccentricity.	CO2	1
	b	What is Full size Scale?	CO4	1
	c	A point P is 20mm above H.P and 30mm behind V.P., Draw the projections of the point.	CO4	3
	d	Explain Third angle Projection?	CO4	2
	e	What is Frustrum of Solid?	CO3	3
	f	Compare Prism and Pyramid.	CO4	2
	g	Which method is used to develop the surfaces of Prisms?	CO3	1
	h	Write some of applications of Development of Surfaces.	CO3	1
	i	Differentiate Isometric View and Isometric Projection.	CO5	4
	j	Name the three types of views.	CO5	1

Part-B

	Answer All the following questions. (5X10M=50Marks)		
2	Draw a conical curve if eccentricity is 3/4 and the focus is at a distance of 49mm from directrix. Draw a normal and tangent to the curve at a distance of 50mm from focus.. Name the curve. [10M]	CO2	3
	OR		
3	A circle of diameter 50mm rolls inside of another circle of diameter 150mm for one complete revolution without slipping, trace the path of a point on the circle and name the curve. [10M]	CO2	3
4	The top view of a 75 mm long line AB measures 65 mm, while the length of its front view is 50 mm. Its one end A is in the H.P and 15 mm in front of the VP. Draw the projections of AB and determine its inclinations. [10M]	CO4	3
	OR		
5	A semi-circular lamina of 8cm diameter rests on its straight edge in H.P, such that its surface makes an angle of 45^0 with H.P and the edge is making an angle of 30^0 with V.P. Draw the projections. [10M]	CO4	3

6	Draw the projections of a cone of base circle diameter 60 mm, axis length 80 mm resting on the HP on a generator with a plane containing that generator is 40^0 inclined to VP. [10M]	CO2	3
	OR		
7	A Pentagonal pyramid of base side 40mm axis of 76mm cut by a sectional plane perpendicular to V.P and Inclines 30^0 with H.P and bisecting the Axis. Draw the sectional Front view, Top view and True shape of sectional area. [10M]	CO3	3
8	A vertical hexagonal prism of 30 mm side of base and axis 70mm has one of its rectangular faces parallel to VP. A through hole of diameter 36m made centrally on vertical surface with bisecting the axis. Develop the lateral surface area of given prism. [10M]	CO3	3
	OR		
9	A cylinder of 60mm diameter and height 80mm is resting on its base in H.P. A circular hole of 30mm diameter is drilled, so that the axis of the hole is perpendicular to V.P and bisects the axis of cylinder at right angles. Draw the development of the lateral surface of the cylinder with the slot. [10M]	CO3	3
10	Draw isometric view of a cylinder of base diameter 50 mm and axis length 70 mm when the axis of the cylinder is (i) vertical (ii) horizontal. [10M]	CO5	3
	OR		
11	Draw the Front View, Top View and Side View for the given object. All dimensions are in mm. [10M] 	CO5	3