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 2024

Computer Aided Engineering Graphics

(Information Technology)

Maximum Marks: 60 Date:27.06.2024 Duration: 3 Hours

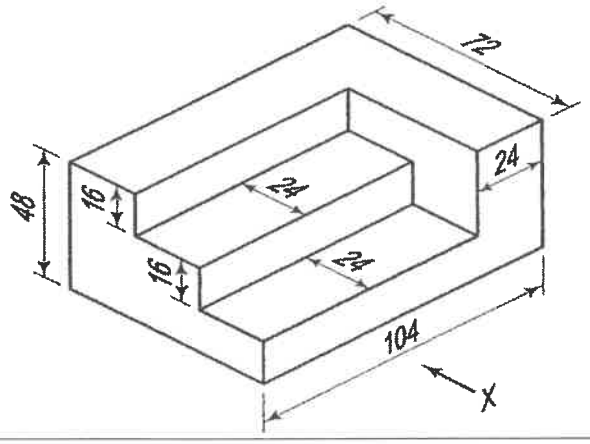
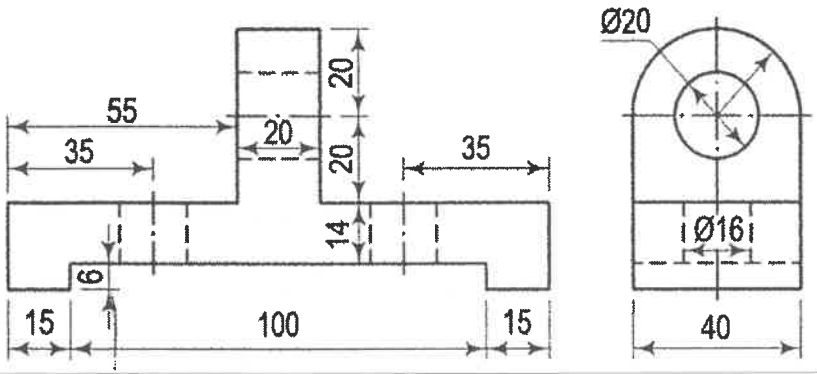
Note: **1.This question paper contains two parts A and B.**
2. Part A is compulsory which carries 10 marks. Answer all questions in Part A.
3. Part B consists of 5 Units. Answer any one full question from each unit.
4. Each question carries 10 marks and may have a, b, c, d as sub questions.

Part-A

All the following questions carry equal marks (10X1M=10 Marks)		CO	Bloom Tx
1	Define Eccentricity.	1	L1
2	Define a Cycloid	1	L1
3	Initial work and construction lines are drawn using _____ pencil.	2	L1
4	In II quadrant, the front view will be _____ the reference line..	2	L1
5	What is meant by pyramid	3	L1
6	What is meant by solid	3	L1
7	Applications of development of surface_____	4	L1
8	The form of sheet obtained by laying all outer surfaces of solid with suitable allowances for the joints is known as _____	4	L1
9	Orthographic projection is the representation of ____views on the mutual perpendicular projection planes.	5	L1
10	A line AB is on the horizontal plane inclined to vertical plane at 45 degrees, _____view gives the actual length of the line AB	5	L1

Part-B

Answer All the following questions. (5X10M=50Marks)			
11	Construct a scale of 1:40 to read meters, decimeters and centimeters and long enough to measure up to 6m. Mark a distance of 4.76m on it . [10]	1	L4
	OR		
12	Draw an ellipse when the distance of its focus from its directrix is 50mm and eccentricity is 2/3. Also draw a tangent and a normal to the ellipse at a point 70mm away from the directrix. [10]	1	L4
13	Draw the projections for the following points keeping the distance between the projectors as 25mm on the same reference line. A point K on HP and 30mm in front of VP B 50mm below HP 30mm behind VP C 35mm below HP on VP D 50mm below HP 20mm in front of VP E on HP 30mm above 50mm behind VP [10]	2	L4
	OR		
14	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. [10]	2	L4

15	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. [10]	3	L4
	OR		
16	A cylinder of base diameter 50mm and height 65mm rests on its base on HP. It is cut by a plane perpendicular to VP and inclined at 30^0 to HP and meets the axis at a distance 30mm from the base. Draw the front view, sectional top view. [10]	3	L4
17	A hexagonal prism, edge of base 20 mm and axis 50 mm long, rests with its base on HP such that one of its rectangular faces is parallel to VP. It is cut by a plane perpendicular to VP, inclined at 45° to HP and passing through the right corner of the top face of the prism. Develop the lateral surface of the prism. [10]	4	L4
	OR		
18	A hexagonal prism, side of base 25 mm and altitude 50 mm, rests on its base on the HP such that an edge of the base is parallel to VP and nearer to the observer. It is cut by a plane inclined at 30° to HP, perpendicular to VP and passing through the centre of the axis. Draw the development of the complete surfaces of the truncated prism. [10]	4	L4
19	Draw the front view, top view and side view of the figures shown below. All dimensions are in mm. [10] 	5	L4
	OR		
20	Draw an isometric diagram from given orthographic projection views shown in figures. [10] 	5	L4