Regulation R22 Subject code: 4E2AE

TKR COLLEGE OF ENGINEERING AND TECHNOLOGY

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

B.Tech II Semester Supplementary Examinations, January 2024

ENGINEERING GRAPHICS
(Civil Engineering)

Maximum Marks: 60 Date: 31.01.2024 **Duration: 3 Hours**

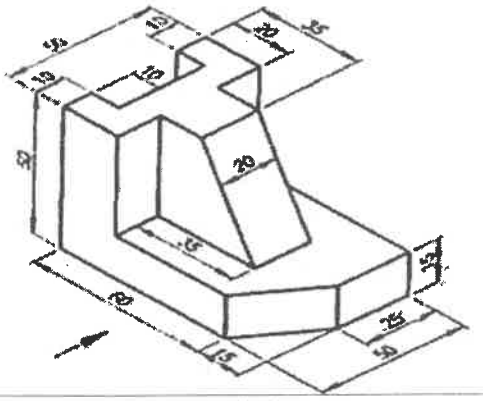
Note: **1.This question paper contains two parts A and B.**
2. Part A is compulsory which carries 10 marks. Answer all questions in Part A.
3. Part B consists of 5 Units. Answer any one full question from each unit.
4. Each question carries 10 marks and may have a, b, c, d as sub questions.

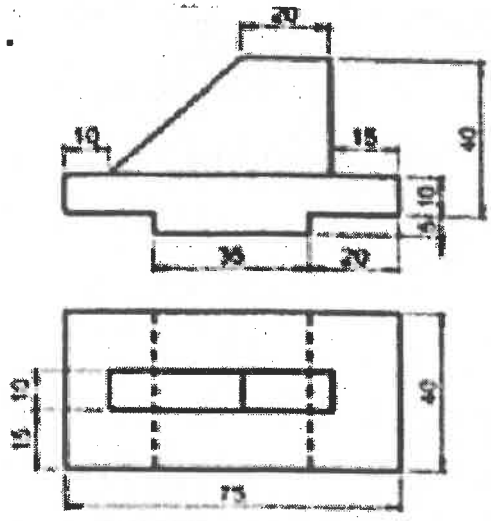
Part-A

All the following questions carry equal marks (10x1M=10 Marks)		CO	Bloom Tx
1	Define Eccentricity	CO1	L2
2	Define a Cycloid	CO1	L2
3	Initial work and construction lines are drawn using _____ pencil.	CO2	L1
4	In II quadrant, the front view will be _____ the reference line..	CO2	L2
5	What is meant by pyramid	CO3	L3
6	Define a cone	CO3	L2
7	When the surfaces of a solid are laid out on a plane, the figure obtained is called its _____	CO4	L2
8	Every line on the development of surfaces must be the _____ of the corresponding edge on the surface	CO4	L1
9	When the projectors are parallel to each other and also perpendicular to the plane, the projection is called	CO5	L1
10	In orthographic projection each projection view represents how many dimensions of an object_____	CO5	L1

Part-B

Answer all the questions (5X10M=50Marks)			
11	A Fixed point is at a distance of 40mm from fixed straight line trace the path of the curve if e = 2/3. [10]	CO1	L3
	(or)		
12	A stone is thrown from a building 6.0 meters height. It just crosses the top of a tree 12 meters high. Trace the path of projectile if the horizontal distance between the building and the tree be 4.0 meters. Also find the distance of the point from the building where the stone falls on the ground. [10]	CO1	L3

13	Draw the projections for the following points keeping the distance between the projectors as 25mm on the same reference line. [10] i. A point K on HP and 30mm in front of VP ii. B 50mm below HP 30mm behind VP iii. C 35mm below HP on VP iv. D 50mm below HP 20mm in front of VP v. E on HP 30mm above 50mm behind VP vi. F 30 above HP 20mm in front of VP	CO2	L3
	(or)		
14	A 60mm long line PQ is inclined at 45° to the V.P. the V.T. is 25mm above reference line and the H.T. does not exist. Draw the projections of the line when one end of the line is 10mm in front of the V.P. [10]	CO2	L3
15	A Pentagonal Prism of base side 30mm axis length 70mm has its axis inclined to HP at 30° and its edge inclined to V.P. at 45°. Draw its projections. [10]	CO3	L3
	(or)		
16	A hexagonal pyramid base 30mm axis 60mm is resting on its base on H.P. with 2 edges of base parallel to V.P. It is cut by a sectional plane perpendicular to V.P. and inclined at 45° to H.P. and intersecting axis at à point of 25mm above the ground. [10]	CO3	L3
17	Draw the development of a cone of diameter 40mm axis length 65mm is sectioned by a plane inclined at 35° to HP and passing through midpoint of the axis of the cone. [10]	CO4	L3
	(or)		
18	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]	CO4	L3
19	Draw the Ortho projection of given objects in 3 views (FV, TV, SV Respectively). [10] 	CO5	L3
	(or)		

20	Draw the Isometric Projections for the following figures. [10] 	CO5	L3