R22 Regulation

Subject Code:4E1DB

TKR COLLEGE OF ENGINEERING AND TECHNOLOGY

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

B.Tech I Semester Supplementary Examinations, September 2023

Computer Aided Engineering Graphics

(CSE)

Maximum Marks: 60

Date:05.10.2023 **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)

1 Define Eccentricity.

2 Define a Cycloid.

3 Initial work and construction lines are drawn using _____ pencil.

4 In II quadrant, the front view will be _____ the reference line..

5 What is meant by pyramid

6 Define a cone.

7 Applications of development of surface_____

8 The form of sheet obtained by laying all outer surfaces of solid with suitable allowances for the joints is known as _____

9 Orthographic projection is the representation of ____views on the mutual perpendicular projection planes.

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

Part-B

Answer All the following questions. (10MX 5=50Marks)

11 Draw a Hyperbola when the distance of its focus from its directrix is 50mm and eccentricity is 3/2. Also draw a tangent and a normal to the hyperbola at a point 25mm from the directrix. [10]

OR

12 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. [10]

13 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. [10]

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 draw its projections. [10]

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]

OR

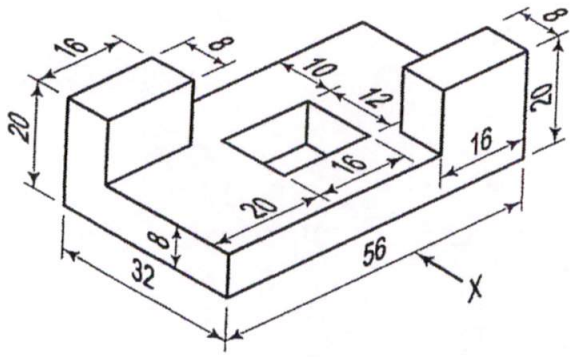
16 A cylinder of base diameter 30 mm and axis length 60 mm is inclined to H.P at 30 and its axis is inclined to V.P at 45^0 . Draw its projections. [10]

17 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. [10]

OR

18 Draw the development of lateral surface of hexagonal pyramid with a 30mm base side and 60mm long axis, which is resting on its base in the H.P such that an edge of the base is perpendicular to V.P when a horizontal section plane cuts the pyramid at a height of 25mm from the base. [10]

19 Draw the front view, top view and side view of the figures shown below. All dimensions are in mm. [10]



OR

20 Draw an isometric diagram from given orthographic projection views shown in figures. [10]