



R22 Regulation

TKR COLLEGE OF ENGINEERING AND TECHNOLOGY

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

Subject code: 4E2AH

B.Tech II Semester Regular Examinations, September 2023

COMPUTER AIDED ENGINEERING GRAPHICS

(CSE(DS))

Maximum Marks: 60

Date: 25.09.2023 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. a Define Eccentricity
- b Define a Cycloid
- c Initial work and construction lines are drawn using _____ pencil.
- d In II quadrant, the front view will be _____ the reference line..
- e What is meant by pyramid
- f Define a cone
- g When the surfaces of a solid are laid out on a plane, the figure obtained is called its _____
- h Every line on the development of surfaces must be the _____ of the corresponding edge on the surface.
- i When the projectors are parallel to each other and also perpendicular to the plane, the projection is called _____
- j In orthographic projection each projection view represents how many dimensions of an object _____

Part-B

Answer All the following questions.

(5X10M=50Marks)

- 2 Draw an ellipse when the distance of its focus from its directrix is 50mm and eccentricity is $\frac{2}{3}$. Also draw a tangent and a normal to the ellipse at a point 70mm away from the directrix. [10]
- OR
- 3 Construct a plain scale of RF = 1:50,000 to show kilometers and hectometers and long enough to measure upto 7 km. Mark a distance of 5.3 km on the scale. [10]
- 4 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]
- OR
- 5 A line EF of length 70 mm has its end 25 mm above HP and 20 mm in front of VP and its end D is 70 mm above HP and 40 mm in front of VP. Draw its projections and locate the traces. Determine its inclinations with the two planes. [10]

6 A cone, with a 60 mm base diameter and a 70 mm long axis, is resting on its base on the HP. It is cut by the axis and is making 45° with the HP. Draw its sectional top view of the section. [10]

OR

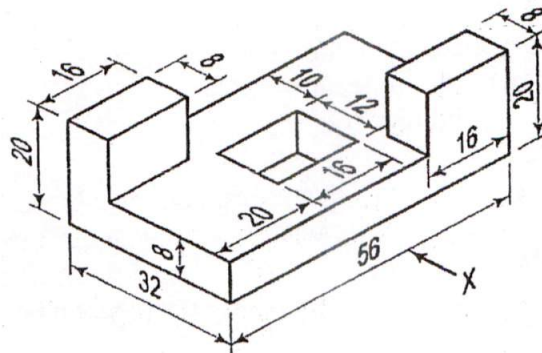
7 A hexagonal pyramid of side 3 cm height 6.5 cms is resting on one of its base edges in V.P and inclined at 30° to H.P. Its axis is inclined at 40° to V.P. Draw the projections. [10]

8 A cone of diameter 60 mm and height 80 mm is cut by a section plane such that the plane passes through the mid-point of the axis and tangential to the base circle. Draw the development of the lateral surface of the bottom portion of the cone. [10]

OR

9 A transition piece connects a square pipe of side 25 mm at the top and a circular pipe of 50 mm diameter at the bottom, the axes of both the pipes being collinear. The height of transition piece is 60 mm. Draw its development. [10]

10 Draw the front view, top view and side view for the component shown in figure. All dimensions are in mm. [10]



OR

11 A sphere with a 50 mm diameter rests centrally over a cube with a 60 mm side. Draw its isometric view. [10]