R18 Regulation Subject Code: 2E1AE

TKR COLLEGE OF ENGINEERING AND TECHNOLOGY

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

B.Tech I Semester Supplementary Examinations, September 2023

Engineering Graphics

(Common to CE,EEE,ME and IT)

Maximum Marks: 70 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.

All the following questions carry equal marks (14x5M=70 Marks)

1. A circle of 40 mm diameter rolls outside on another circle of diameter 100mm for one revolution. Trace the path of the curve. [14M]

(OR)

2. A Fixed point is at a distance of 50mm from fixed straight line trace the path of the curve if e =2/3. Draw tangent and normal to it at a dist. of 40mm from directrix. [14M]

3. A line AB 100mm long has its front view inclined at an angle of $45^0$to XY. The point a is in the VP and 25mm above the HP. The length of the front view is 60mm. Draw The top view of the line and measure its length also find its inclination of AB with HP and VP. [14M]

(OR)

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 VP and inclined to HP at 45° draw its projections. [14M]

5. A pentagonal pyramid of base side 30mm axis length 65 mm is inclined to HP at 45° Draw its Projections. [14M]

(OR)

6. A Hexagonal Plane of side 30mm 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. [14M]

7. A Hexagonal Prism of side 30mm axis length 70mm is resting on its base on HP with a side of base. It is cut by a plane inclined at 45° to HP and passing through a point 15mm below the top end of the axis. Draw the Development. [14M]

(OR)

8. A cone of base diameter 50mm axis length 60mm is resting on its base on HP. It is cut by an AIP inclined at 45° to HP and passing through a point on the axis and 20mm above the base. Draw its sectional top view and true shape of the section. [14M]

9. A Cone is placed centrally on the top of a cube with 40mm side which is placed centrally over a cylindrical block. The cone has base diameter 30mm and axis length 40mm. The cylindrical block has 80mm base diameter and 10mm thickness. Draw the isometric projection. [14M]

(OR)

10. Draw front View top view and side view for the following figure: [14M]