



R20 Regulation

TKR COLLEGE OF ENGINEERING AND TECHNOLOGY

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

Subject code: 3E1AE

B.Tech I Semester Supplementary Examinations, January 2024

ENGINEERING GRAPHICS

(Common to CE, ME, CSE, CSE(AI&ML), CSE(DS) and IT)

Maximum Marks: 70

Date: 24.01.2024 Duration: 3 hours

Answer all the questions

14X5M=70M

1. A circle of 40 mm diameter rolls on a straight line for Half revolution and for the remaining Half on vertical line draw the curve traced by a point P on circumference of the circle taking the top most point on the revolving circle as the initial position of the generating point. [14m]
(OR)
2. A circle of 40 mm diameter rolls outside the another circle of diameter 100mm for one revolution. Trace the path of the curve. [14m]
3. The Front view and Top view of a straight line PQ measures 50mm and 65mm respectively. the point P is in the HP and 20mm in front of VP, and the front view of the line is inclined at 45° to XY. Determine the true length and true angle. [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 Plane of side 30mm is inclined to HP at 30° and its surface is inclined to VP at 45° . Draw its Projections when one of the side is perpendicular to HP. [14m]
(OR)
6. A Pentagonal Prism of side 30mm axis length 70mm has its axis inclined to HP at 30° and its edge inclined to VP at 45° . Draw its projections. [14m]
7. 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. [14m]

(OR)

8. A Pentagonal Prism of side 30mm axis length 70mm has its base resting on HP such that its rectangular face is parallel to VP. It is cut by a plane inclined at 45° to the H.P bisecting the axis. Draw the development. [14m]
9. Draw the isometric view of frustum of a hexagonal pyramid of side 25mm axis length 65mm sectioned at 30mm above HP. A cone is resting on the top base of the prism of diameter 50mm axis 65mm. [14m]

(OR)

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

