



R20 Regulation

Subject code: 3EIAE

TKR COLLEGE OF ENGINEERING AND TECHNOLOGY  
(Autonomous, Accredited by NAAC with 'A' Grade)

B.Tech I Semester Regular/Supplementary Examinations, April 2022

Engineering Graphics

(CSE)

Maximum Marks: 70

Date:09.05.2022 Duration: 3 hours

- Note: 1. It consists of 5 Units. Answer any one full question from each unit which carries 14M.  
2. Each question carries 14 marks and may have a, b, c, d as sub questions.

Answer All the following questions.

(14MX 5=70Marks)

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

OR

- 2 Draw a hypocycloid for a rolling circle of diameter 40 mm and a base circle of 100 mm diameter. Draw a tangent and a normal at any point on the curve. [14M]
- 3 The front view of a 75mm long line PQ measures 50 mm, while its top view measures 60 mm. If end P of the line is 35 mm above the HP and 15 mm in front of the VP, draw its projections. Determine the true inclination of the line PQ with HP and VP. [14M]

OR

- 4 A Pentagonal plane of side 30mm is inclined to HP at  $30^\circ$  and its surface is inclined to VP at  $45^\circ$ . Draw its projections
- 5 A pentagonal pyramid, having a base with a 30 mm side and 70 mm long axis, rests on a corner of its base on the HP. Such that its apex is 55 mm above the ground and the top view of the axis is inclined  $30^\circ$  to the VP. Draw its projections. [14M]

OR

- 6 A hexagonal pyramid, having a base of 30 mm side and a 60 mm long axis, has an edge of its base on the ground and the axis is inclined at  $30^\circ$  to the HP. The edge of the base on which it rests is inclined  $45^\circ$  to the VP. Draw its projections. [14M]
- 7 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 an AIP bisecting the axis and is making  $45^\circ$  with the HP. Draw its sectional top view and true shape of the section. [14M]

OR

- 8 Draw the development of lateral surface of a square pyramid with a 40 mm base side and a 60 mm long axis which is resting on its base in the HP, when (a) all the sides of the base are equally inclined to the VP and (b) a side of base is parallel to the VP. [14M]

