

TEEGALA KRISHNA REDDY ENGINEERING COLLEGE

(UGC – AUTONOMOUS)

B TECH II Semester Examinations, September 2021

(Common to EEE, CSE, IT)

ENGINEERING GRAPHICS

Answer any three questions

All questions carry equal marks

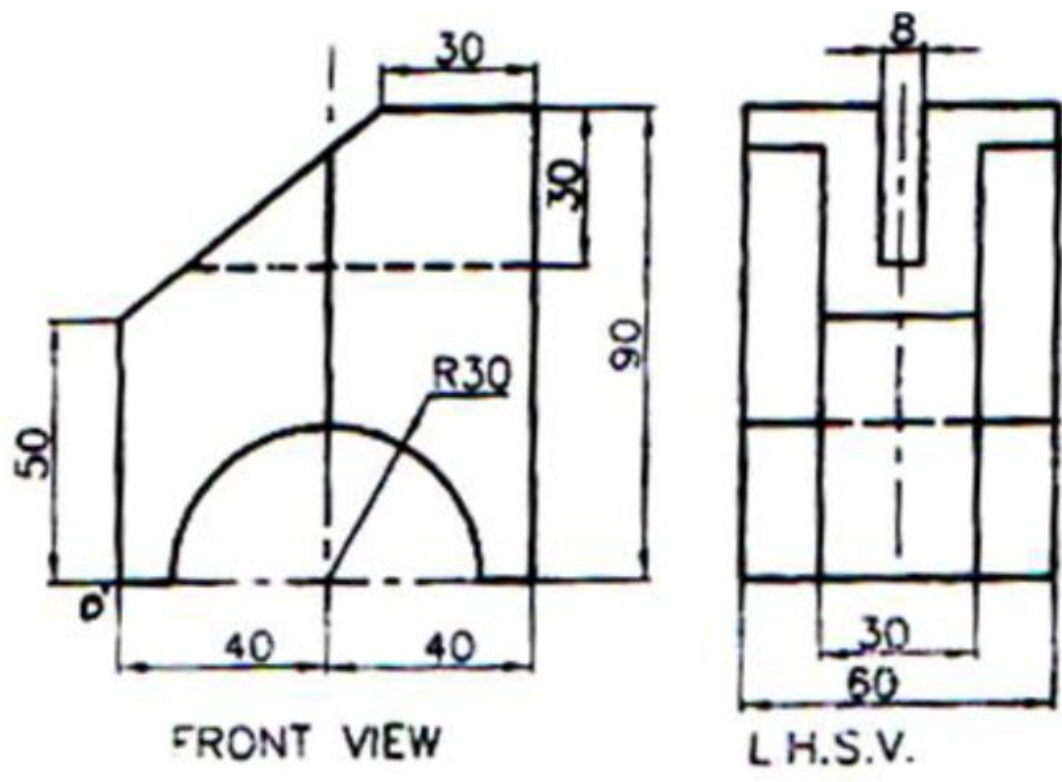
Time : 3 Hours

Max. Marks : 75

1. A circle of 40 mm diameter rolls along a straight line without slipping. Draw the curve traced by a point on the circumference for one complete revolution and name the curve. Draw a normal and tangent to the curve at a point 25 mm from the straight line. [25]
2. (a) The distance between the end projectors of a line AB is 40 mm. The end point A is 15 mm above HP and 20 mm in front of V.P. The line is inclined at 30° to the HP. Draw its projections if the true length of the line is 80 mm. Find its inclination with the VP. Take the end point B in the 1st quadrant.

(b) Draw the projections of the following points on the same reference line keeping the projectors 30 mm apart. [15+10]

A: 50 mm above the HP and 15 mm in front of the VP.
B: 15 mm below the HP and 50 mm in front the VP.
C: 20 mm below the HP and 20 mm behind the VP.
3. A pentagonal pyramid, side of pentagon 30 mm and height 70 mm is resting on HP on one of its base edges such that the triangular face containing that edge is perpendicular to HP and parallel to VP draw the projections. [25]
4. A hexagonal prism of base 30 mm and height 70 mm is resting on its base on the HP with a side of the base perpendicular to the VP. The prism has a cylindrical hole of diameter 40 mm drilled centrally such that the axis of the hole is perpendicular to the VP. Draw the development of the lateral surface of the prism. [25]
5. Draw the Isometric view of the following [25]



6. A regular hexagonal lamina with its edge 50 mm has its plane inclined at 45° to HP and lying with one of its edges in HP. The plane of one of its diagonals is inclined at 45° to XY. The corner nearest to VP is 15 mm in front of it. Draw its projections. [25]