National Institute of Technology Delhi
Name of the Examination: B. Tech. (Nov 2016)

Branch: CSE
Title of the Course: Engineering Visualization

Semester: I
Course Code: MEB100

Time: 3 Hours
Note: Use of calculator is permitted

Maximum Marks: 50

Q. 1. Construct a scale of 1:5 to show decimetres and centimetres and to read up to 1 metre.
(6)

Q. 2. The major axis of an ellipse is 150 mm long and the minor axis is 100 mm long. Draw the ellipse using rectangle method. (8)

Q. 3. (a) A square ABCD of 50 mm side has its corner A in the H.P., its diagonal AC inclined at 30° to the H.P. and the diagonal BD inclined at 45° to the V.P. and parallel to the H.P. Draw its projections. (10)

OR

(b) A line PQ 100 mm long, is inclined at 30° to the H.P. and at 45° to the V.P. Its mid-point is in the V.P. and 20 mm above the H.P. Draw its projections, if its end P is in the third quadrant and Q in the first quadrant. (10)

Q. 4. A circle of 50 mm diameter rolls on the circumference of another circle of 175 mm diameter and outside it. Trace the locus of a point on the circumference of the rolling circle for one complete revolution. Name the curve. (12)

Q. 5. (a) Draw the projections of a pentagonal prism, base 25 mm side and axis 50 mm long, resting on one of its rectangular faces on the H.P., with the axis inclined at 45° to V.P.. (14)

OR

(b) A cylinder, 50 mm diameter and 60 mm long, has its axis parallel to both the H.P. and the V.P. It is cut by a vertical section plane inclined at 30° to the V.P., so that the axis is cut at a point 30 mm from one of its ends and both the bases of the cylinder are partly cut. Draw its sectional front view and true shape of the section. (14)