

Maulana Azad National Institute of Technology, Bhopal

B.Tech. I Year II Semester END Term Examination, June-2021

Engineering Graphics (ME115)

Time: 03 Hrs.

Date: 30/06/2021

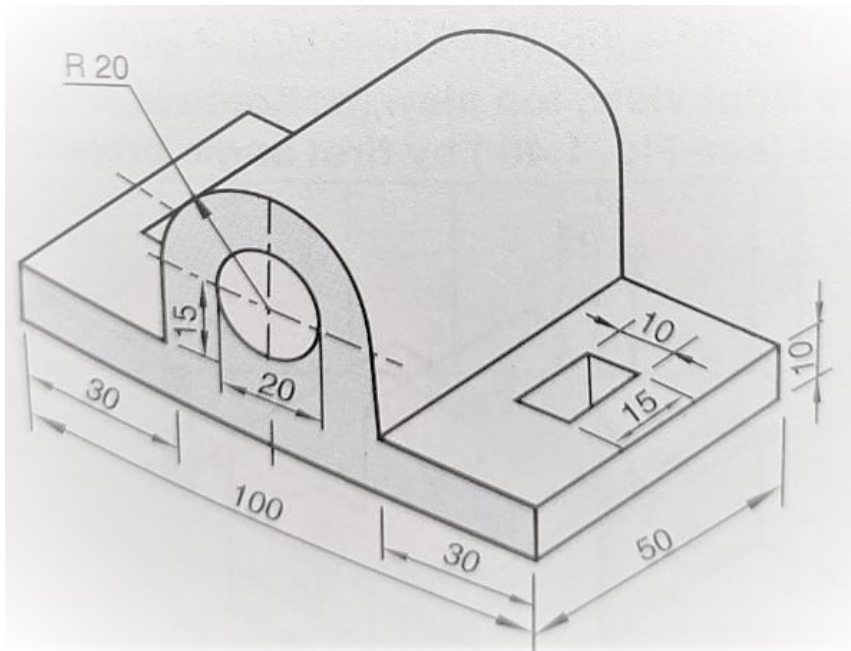
Max. Marks: 50

All questions carry equal marks

Assume suitable scale of drawing (if required)

Attempt all the questions

1. A circle of 40 mm diameter rolls on the outside of a base circle of the 60 mm diameter. Draw the curve traced by a point on the rolling circle for one complete revolution of the rolling circle. Also draw a normal and a tangent at any point on the curve.
2. A point P moves in a plane in such a way that the sum of its distances from two fixed points 80 apart is 100 mm. Name and draw the locus of point P.
3. An 80 mm long line PQ is inclined at 45° to the HP and 30° to the VP. The end P is in the HP and 40 mm in front of the VP. Draw its projection. Also locate the HT.
4. A hexagonal plane of side 30 mm has an edge in the VP. The surface of the plane is inclined at 45° to the VP and the edge on which rests is inclined at 30° to the HP. Draw its projections.
5. Pictorial view of an object is shown below. Using first angle projection, draw front view, top view and any one side view. All dimensions are in mm. Assume any missing data suitably.



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