

I B.Tech II Semester Supplementary Examinations, Nov/Dec - 2017

ENGINEERING DRAWING

(Com. to All Branches)

Time: 3 hours

Max. Marks: 75

Answer any **FIVE** Questions
All Questions carry **Equal** Marks

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1. a) A fixed point F is 8cm from a fixed straight line. Draw the locus of a point 'P' moving in such a way that its distance from the fixed straight line is  $\frac{2}{3}$  times its distance from F. Plot at least 9 points. Name the curve. (8M)
- b) Construct a parabola when the distance between focus and the directrix is 30mm. (7M)
2. a) A point M is 35mm above the HP and 45 mm in front of VP. Draw its projections. (8M)
- b) Draw the projections of a point A lying on the HP and 30mm in front of the VP. (7M)
3. a) A line PQ, 120mm long, is inclined at  $40^\circ$  to the HP and at  $50^\circ$  to the VP. Its mid point is in the VP and 20mm above the HP. Draw its projections, if its end P is in the third quadrant and Q in the first quadrant. (8M)
- b) A line AB, 50mm long, has its end A in both the HP and the VP. It is inclined at  $30^\circ$  to the HP and at  $45^\circ$  to the VP. Draw its projections. (7M)
4. Draw the projections of a circle of 60 mm diameter, resting on VP on a point on the circumference. The plane is inclined at  $45^\circ$  to VP and perpendicular to HP. The centre of the plane is 40mm above HP. (15M)
5. a) Draw the projections of a hexagonal prism of base 25mm and axis 60mm long, when it is resting on one of its corners of the base on HP. The axis of the solid is inclined at  $45^\circ$  to HP. (8M)
- b) Draw the projections of a pentagonal prism of base 40mm side and axis 70mm long, when it is resting on one of its rectangular faces on VP, the axis of the solid is inclined at  $30^\circ$  to HP. (7M)
6. a) Draw the projections of a cone, base 75mm diameter and axis 100mm long, lying on the HP on one of its generators with the axis parallel to the VP. (8M)
- b) A regular pentagonal pyramid, base 30mm side and height 50mm rests on one edge of its base on the ground so that the highest point in the base is 20 mm above the ground. Draw its projection when the axis is parallel to the VP. (7M)

7. Draw the isometric view of a square prism, with side of base 40mm and length of axis 70mm, when its axis is  
i. vertical and  
ii. horizontal.
8. Draw the 3-Orthographic views of the block shown in figure 1. All dimensions are in mm. (15M)

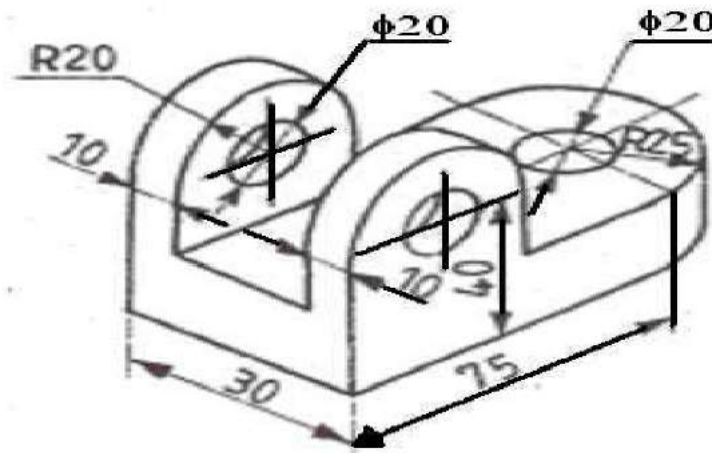


Figure-1

