

**I B. Tech II Semester Supplementary Examinations, Nov/Dec - 2019****ENGINEERING DRAWING**

(Com. to All Branches)

Time: 3 hours

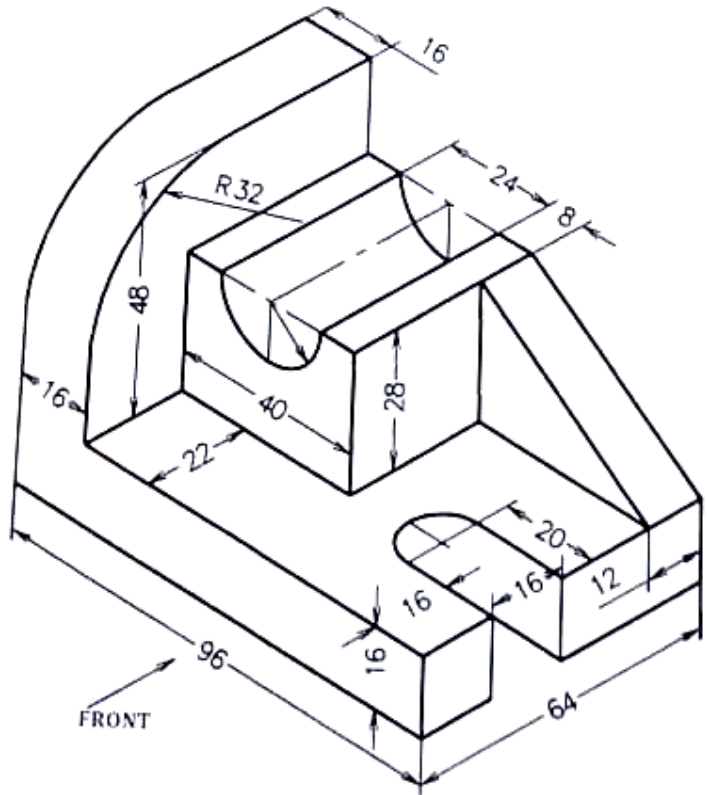
Max. Marks: 75

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

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1. a) Construct a vernier scale of 1:40 to read metres, decimeters and centimeters and long enough to measure up to 6 m. mark a distance of 4.36 m on it. (8M)
- b) The foci of an ellipse are 90mm apart and the minor axis is 72mm long. Determine the length of the major axis. Construct the ellipse. (7M)
2. a) A line AB, 60 mm long, has its end A in both the H.P and the VP. It is inclined at 45 degrees to the HP and 30 degrees to the VP. Draw the projections of the straight line. (8M)
- b) A line EF 60mm long is in VP and inclined to HP. The top view measures 45mm. The end E is 15mm above HP. (7M)
3. The end A of a line AB is 12mm in front of the VP and is above the HP. The distance between the projectors is 65mm. The line is inclined at  $40^{\circ}$  behind the VP. Draw the projections of the line and the VT. (15M)
4. ABCD is a rhombus of diagonals AC = 110 mm and BD = 70 mm. Its corner A is in the HP and the plane is inclined to the HP such that the plane appears to be a square. The plane of diagonal AC makes an angle of  $20^{\circ}$  to the VP. Draw the projections of the plane and find its inclination with HP. (15M)
5. A pentagonal prism with side of base 25 mm and axis 55 mm long is resting on one of the rectangular faces on HP. Draw the projections of the prism. (15M)
6. a) Draw the projections of a cone of base 60 mm diameter and axis 70 mm long, resting on a point of rim of the base on HP, with a generator perpendicular to HP. Draw the projections of the cone. (8M)
- b) Draw the isometric view of a hexagonal prism, with side of base 40mm and length of axis 70mm, when its axis is
  - (i) Vertical and
  - (ii) Horizontal. (7M)

7. Draw (i) Front view (ii) Side view from the left (iii) Top view (All dimensions are in mm). (15M)



8. Draw the isometric view of a following block. (All dimensions are in mm). (15M)

