

B. E. CONSTRUCTION ENGINEERING, FIRST YEAR, FIRST SEMESTER EXAMINATION - 2018

Subject : **ENGINEERING DRAWING - I**

Time : Four hours

Full Marks : 100

Answer Question no.6 and any four questions from the rest. For neatness – 4 marks.

1. A circle of 42mm diameter rolls on a straight line without slipping. Draw the locus of a point P on the circumference of the circle for one and half revolutions. Name the curve so traced and label the various features. Also draw the tangent and the normal at a point 25mm above the fixed line on the ascending side of the curve. 18
2. Construct a diagonal scale to measure inch, $\frac{1}{2}$ inch & $\frac{1}{64}$ inch and long enough to measure up to 4 inch. Take R.F = $\frac{1}{2}$. Also show a distance of $\frac{23}{64}$ inch and $2\frac{48}{64}$ inch. 18
3. A line AB, 65 mm long has end A 20 mm above HP and 25 mm in front of VP. The end B is 40 mm above HP and 65 mm in front of VP.
 - (a) Draw plan and elevation of line AB.
 - (b) Show and measure the true and apparent angles of inclinations with HP and VP. 18
 - (c) Show HT and VT of the line AB.
4. Draw the projections of a regular hexagonal lamina of 30 mm side, having one of its sides in the HP and inclined at 60° to the VP, and its surface making an angle of 45° with the HP. 18
5. A right regular hexagonal prism, edge of base 25mm and height 70mm, rests on HP on one of its base edges, such that the base edge is perpendicular to VP, the axis is parallel to VP and inclined at 45° to HP. Draw the projections and LHSV of the prism. 18
6. Fig -1 shows a pictorial view of a machine part. Draw (a) Front view, (b) Top view, (c) Side view from the right. 8+8+8
7. Fig - 2 shows Plan and Elevation of a machine part. Draw the Isometric view of the machine part. 18

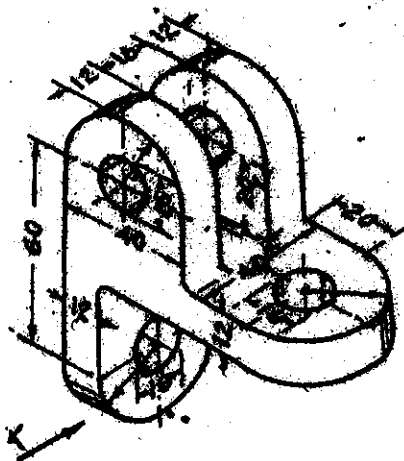


Fig - 1

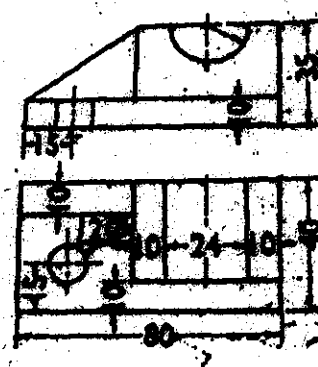


Fig - 2