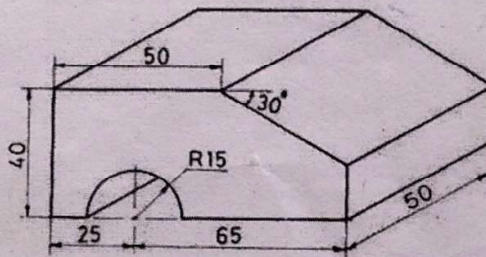
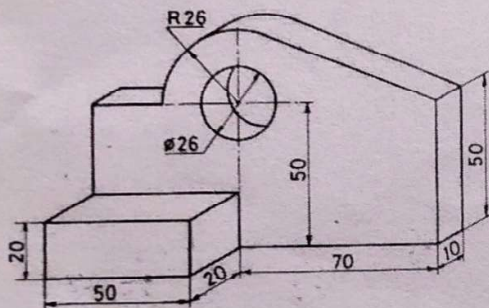


DT 15.01.2019

DRAWING ASSIGNMENT - 1

1. Draw the elevation, plan and right side view for the followings two objects.



2. A cylinder of 40mm diameter rolls on a horizontal surface. Draw the curve traced out by a point P on the circumference of the cylinder for a full revolution.
3. Draw an involute of a circle of 40mm diameter. Also draw a normal and a tangent to it at a point 100mm from the initial position of the centre of circle.
4. Draw a helix of one convolution on a cylinder of 100 mm diameter and pitch 50mm.

PROJECTION OF LINES

DT- 22.01.2019

1. A line AB, 100mm long is in the HP and makes an angle of 30° with the VP. Its end A is 30 mm in front of the VP. Draw its projections.
2. A 100 mm long line is parallel to and 40 mm above the HP. Its two ends are 25 mm and 50 mm in front of the VP respectively. Draw its projection and find its inclination with the VP.
3. Two pegs fixed on a wall are 4.5 m apart. The distance between the pegs measured parallel to the floor is 3.6 m. If one peg is 1.5 m above the floor, find the height of the second peg and the inclination of the line joining the two pegs with the floor.
4. The top view of a 80 mm line AB measures 70 mm and the length of its front view is 55 mm. Its one end A is in the HP and 12 mm in front of the VP. Draw the projections of AB and determine its inclination with the HP and VP.
5. A line AB, 5.5 m long, is parallel to HP and point A is 1.0 m above HP and 2.5 m in front of VP. The line is inclined at 45° to the VP. Draw its projection and find traces.
6. The projections drawn from the HT and the VT of a straight line AB are 80 mm apart and those drawn from its ends are 50 mm apart. The HT is 35 mm in front of the VP, the VT is 55 mm above the HP and the end A is 10 mm above the HP. Draw the projections of AB and determine its length and inclination with the reference planes.

PROJECTION OF PLANES

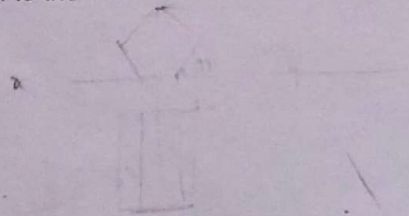
Dr. 29.01.2019

1. A plate having shape of an isosceles triangle has base 50 mm long and altitude 70 mm. It is so placed that in the front view it is seen as an equilateral triangle of 50 mm and one side inclined at 45° to xy. Draw its top view.
2. Draw a rhombus of diagonals 100 mm and 60 mm long with the longer diagonal horizontal. The figure is the top view of a square of 100 mm long diagonals, with a corner on the ground. Draw its front view and determine the angle which its surface makes with the ground.
3. Draw the projections of a circle of 80 mm diameter having the end A of the diameter AB in the HP, the end B in the VP, the surface inclined at 30° to the HP and 60° to the VP.
4. Draw the projections of a regular pentagon of 40 mm side, having its surface inclined at 30° to the HP and a side parallel to the HP and inclined at an angle of 60° with the VP.
5. A regular hexagon of 40 mm side has a corner in the HP. Its surface is inclined at 45° with the HP and the top view of the diagonal through the corner which is in the HP makes an angle of 60° with the VP. Draw its projections.
6. A thin rectangular plate of sides 60 mm X 30 mm has its shorter side in the VP and inclined at 30° to the HP. Project its top view if its front view is a square of 30 mm long sides.

PROJECTION OF SOLIDS

DT- 05-02-2019

1. A cube of 60 mm long edges is resting on the ground, with its vertical faces equally inclined to the VP. Draw its projections.
2. A tetrahedron of 70 mm long edges is resting on the ground on one of its faces, with an edge of that face parallel to the VP. Draw its projections and measure the distance of its apex from the ground.
3. Draw the projections of a pentagonal prism, base 30 mm side and axis 55 mm long, resting on one of its rectangular faces on the ground, with the axis inclined at 45° to the VP.
4. Draw the projections of a cylinder 80 mm diameter and 120 mm long, lying on the ground with its axis inclined at 30° to the VP and parallel to the ground.
5. Draw the projections of a cone, base 80 mm diameter and axis 100 mm long, lying on one of its generators with the axis parallel to the VP.



SECTIONS OF SOLIDS

Dt. 12.02.2019

1. A cube of 50 mm long edges is resting on the ground with a vertical face inclined at 30° to the V.P. It is cut by a section plane, perpendicular to the V.P., inclined at 30° to the H.P. and passing through a point on the axis, 38 mm above the ground. Draw the sectional top view and true shape of the section of the remaining portion of the cube.
2. A hexagonal prism, side of base 35 mm and height 75 mm is resting on one of its corners on the ground with a longer edge containing that corner inclined at 60° to the H.P. and a rectangular face parallel to the V.P. A horizontal section plane cuts the prism in two equal halves. (i) Draw the front view and sectional top view of the cut prism. (ii) Draw another top view on an auxiliary inclined plane which makes an angle of 45° with the H.P.
3. A cylinder, 60 mm diameter and 80 mm long, has its axis parallel to the H.P. and inclined at 30° to the V.P. It is cut at mid-axis by a vertical section plane in such a way that the true shape of the section is an ellipse having the major axis 70 mm long. Draw its sectional front view and true shape of the section.
4. A tetrahedron of 65 mm long edges is lying on the ground on one of its faces with an edge perpendicular to the V.P. It is cut by a section plane which is perpendicular to the V.P. so that the true shape of the section is an isosceles triangle of base 50 mm long altitude 40 mm. Find the inclination of the section plane with the H.P. and draw the front view, sectional top view and the true shape of the section.
5. A cone, base 65 mm diameter and axis 75 mm long, is lying on the ground on one of its generators with the axis parallel to the V.P. A section plane which is parallel to the V.P. cuts the cone 6 mm away from the axis. Draw the sectional front view of the remaining portion of the cone.

ISOMETRIC VIEW
Draw the isometric view of the following figures

DT · 11.03.2019

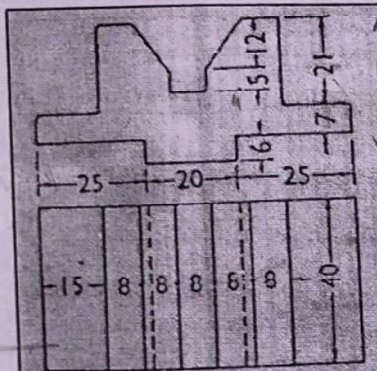


FIG 1

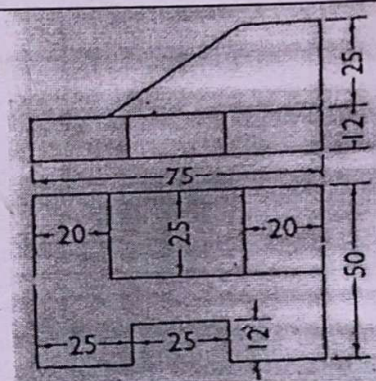


FIG 2

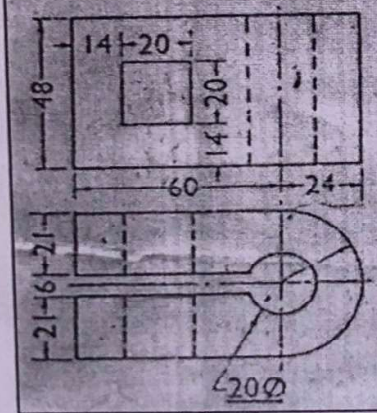


FIG 3

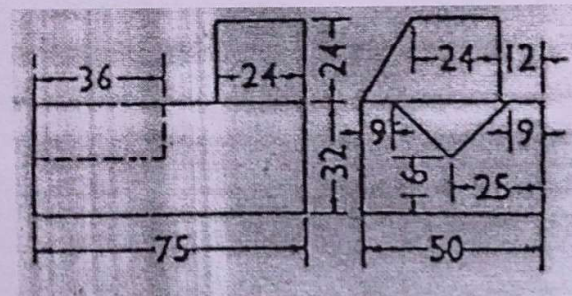


FIG 4