

Important Questions- Engineering Drawing

Unit I

Lines

1. The midpoint M of a straight-line AB is 60mm above HP and 50mm in-front of VP. The line measures 80mm long and inclined at an angle of 30° to HP and 45° to VP. Draw its projections.
2. A line CD measuring 80mm is inclined at an angle of 30° to HP and 45° to VP. The point C is 15mm above HP and 25 mm in front of VP. Draw the projections of the straight line.
3. A Line AB 55 mm long has its one end 15mm above HP and 10mm in front of VP. It is inclined at an angle of 55° to HP and 35° to VP . Draw its projections.

Planes

4. A regular hexagonal lamina of 30mm side resting on one of its corners on HP. Its surface is inclined at 45° to HP. The plane of the diagonal through the resting corner in HP makes an angle of 40° with VP. Draw its projections.
5. A thin rectangular plate of sides 50mm x 25mm has its shorter side in the HP and inclined at an angle of 30° to the VP. Project its front view when its top view is a perfect its plane vertical and inclined at 40° to VP. Its centre is 33 mm above HP and 25mm in front of VP. Draw its projections.

Unit II

1. A cylinder of diameter 35mm and height 55mm is resting on the ground on its base. It is tilted such that its axis makes an angle of 40° to HP. Draw its projections.
2. A hexagonal pyramid side of base 25mm and axis 50 mm long, rests with one of the edges of its base on HP and its axis is inclined at 30° to HP and parallel to VP. Draw its projections.
3. A pentagonal pyramid side of base 25mm and axis 55mm long lies with one of its slant edges on HP such that its axis is parallel to VP. Draw its projections.
4. A pentagonal pyramid side of base 25mm and axis 55mm long lies with one of its slant edges on HP such that its axis is parallel to VP. Draw its projections.
5. Draw the projection of cone base 30mm diameter and axis 50mm long, resting on HP on a point of its base circle with the axis making an angle of 45° with HP and parallel to VP.

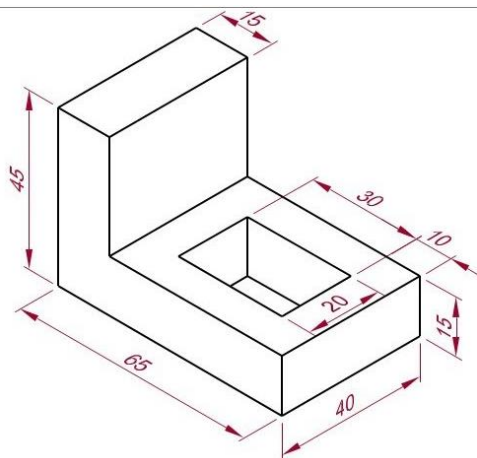
Unit III

1. A pentagonal pyramid side of base 30mm and axis 60mm long, rests with its base on HP and inclined at 45° to HP passes through the axis at a point 35 mm above the base. Draw the sectional top view and true shape of the section.

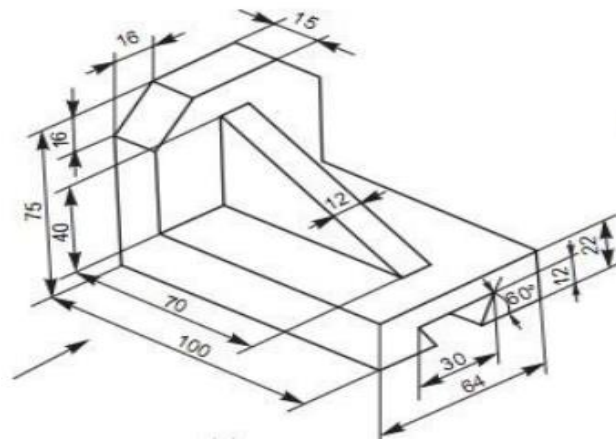
2. A Pentagonal pyramid of base side 25mm and altitude 50mm rests on its base on HP with one of the base edges perpendicular to VP. It is cut by a plane inclined at 45° to the base. The cutting plane meets the axis at 20mm above the base. Draw its front view, sectional top view and true shape of the section.
3. A Cone of diameter 45mm and height 70mm is cut by a plane perpendicular to VP, 30° to HP bisecting the axis. Draw the development of the lateral surface of the cone.
4. A Hexagonal Prism, edge of base 20mm and Axis 50mm long rest with its base on HP such that one of its rectangular faces is parallel to VP. It is cut by a Plane Inclined at 45° to HP and passing through the Right top Corner of the prism (i) Draw the Sectional Top view (ii) Develop the lateral Surfaces of the Truncated Prism.
5. A pentagonal prism of base side 25mm and height 55mm is cut by a plane perpendicular to VP and 30° to HP and passing through the axis 30 mm above the base. Draw the development of the lower portion of the solid

Unit IV

6. A hexagonal prism, side of base 25mm and height 50mm rests on HP and one of the edges of its base is parallel to VP. A section plane perpendicular to VP and inclined at 50° to HP bisects the axis of prism. Draw the isometric projection of the truncated prism, showing cut surface.
7. A pentagonal pyramid, 30mm edge of base and 65mm height, stands on HP such that an edge of the base is parallel to VP and nearer to it. A section plane perpendicular to VP and inclined at 30° to HP cuts the pyramid passing through a point on the axis at a height of 35mm from the base. Draw the isometric projection of the truncated pyramid, showing the cut surface.
8. Draw the elevation, plan and side view of the isometric view given in figure, taking arrow A as the direction of elevation.

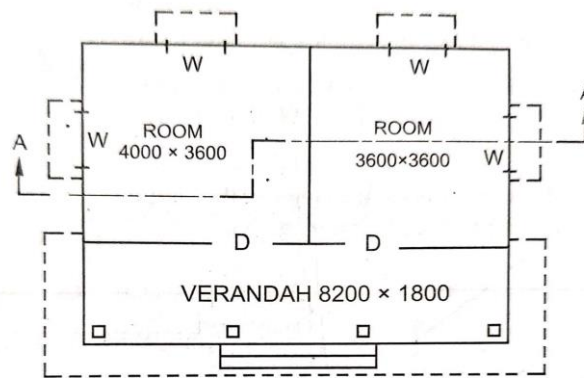


9. Draw the elevation, plan and side view of the isometric view given in figure, taking arrow A as the direction of elevation.

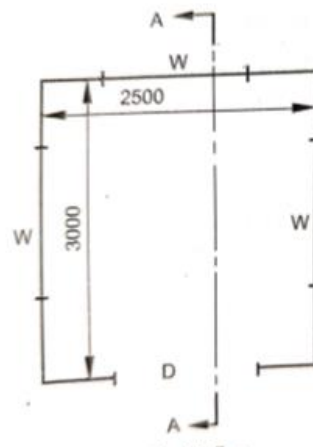


Unit V

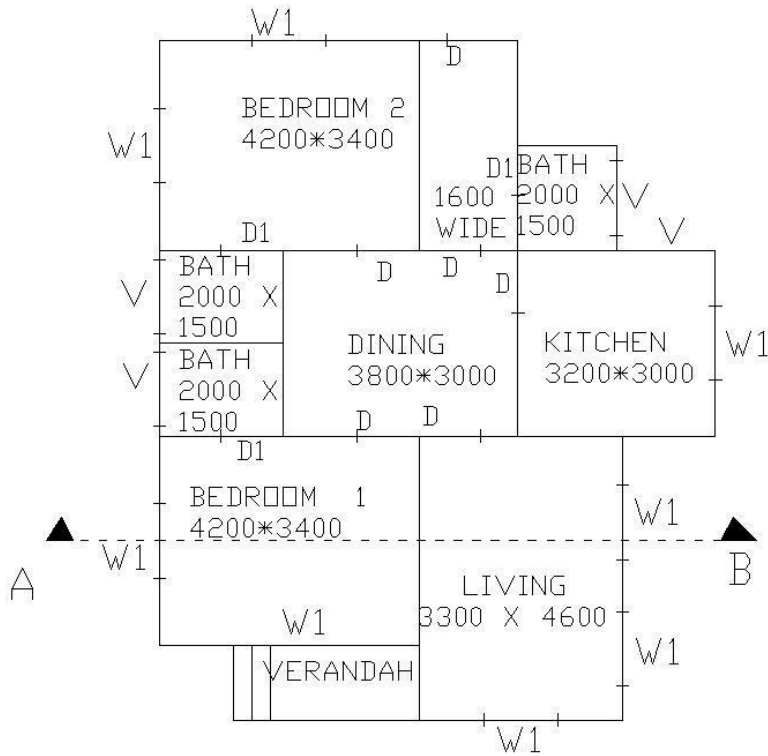
10. Draw the front and top views of a Panchayat office, the line drawing of which is shown in fig. Also draw a Section on A-A, Make Suitable Assumption Wherever is needed



11. The line drawing of a Single room Security office building is shown in fig. Draw the front, Top and Sectional Views to a Suitable scale. Assume Suitable data if necessary. Take all the dimensions are in mm.



12. Draw the detailed plan, elevation and cross section.



13. Draw the detailed plan, front elevation and section x-x of building as shown in figure

- All walls 300mm thick with plinth height 400 mm.
- DPC is 40mm thick in Cement Concrete 1:2:4
- Height off building 3.00m from inside
- RCC slab 150mm thick
- Door 1.20x2.10m
- Window 1.00x1.50m
- Flooring 25 mm thick Cement Concrete 1:2:4 over 100 mm thick Cement Concrete 1:5:10 over 100 mm thick sand filling

