

Indian Institute of Space Science & Technology
Thiruvananthapuram
B.Tech. Second Semester (Jan - June 2023)
AE 141: Engineering Graphics
Tutorial-3
Topic: Projection of solids

Note: Draw these questions on the back side of the notebook, and bring the notebook while coming to the Engineering graphics lab sessions.

1. Draw the projections of a right circular cylinder of base 60 mm and 70 mm long resting on HP such that its axis is inclined 30° to HP and the axis appears to be perpendicular to VP in top view.
2. A tetrahedron of side 45 mm is resting on VP on one of its edges with a face containing that edge inclined 20° to VP. Draw its projections.
3. A hexagonal prism, 30 mm base edge and height 60 mm has a through hole of 20 mm diameter, drilled centrally along with axis. Draw the projections when it is resting on one of its corners with axis inclined 45° with HP and 45° to VP.
4. A frustum of a hexagonal pyramid side of base at bottom 25 mm and height 30 mm rests on a corner of its base in such a way that the slant edge containing that corner makes an angle 45° with HP and 30° with VP. Draw the projections of the frustum. Assume the original height of full pyramid is 60 mm.
5. A square pyramid of base 25mm side and slant height 60mm long is freely suspended from a corner of its base. Draw the projections of the pyramid when the axis is inclined at 60° to VP.
6. A cube of base side 30mm is resting on HP on one of its corners such that the body diagonal is perpendicular to VP.