

18MES101L - Engineering Graphics and Design

Reg. No		Ex. No	9
Name of the student		Week. No	11
Department		Title of the exercise	Section of Solids
Section		Date	

Regular class problems (4 x 2 = 8 Marks)

1. A Cone base 75 mm diameter and axis 80 mm long is resting on its base on H.P. It is cut by a section plane perpendicular to the V.P., inclined at 45° to the H.P. and cutting the axis at a point 35 mm from the apex. Draw the front view, sectional top view, sectional side view and true shape of the section (Level-1).
2. A square pyramid, base 50 mm side and axis 75 mm long, has its base on the ground and all the edges of the base equally inclined to the wall. It is cut by a section plane, perpendicular to the wall, inclined at 40° to the ground and bisecting the axis. Draw its sectional top view, sectional side view and true shape of the section (Level-2).
3. A hexagonal pyramid, base 30 mm side and axis 65 mm long is resting on its base on the ground, with two edges of the base parallel to the wall. It is cut by a section plane perpendicular to wall and inclined at 45° to the ground, intersecting the axis at a point 25 mm above the base. Draw the front view, sectional top view, sectional side view and true shape of the section (Level-1).
4. A cylinder of 50 mm diameter, 70 mm height and having its axis vertical is cut by a section plane, perpendicular to the VP, inclined at 40° to the HP and intersecting the axis 30 mm above the base. Draw its front view, sectional top view, sectional side view and the true shape of the section (Level-2).

Extra problems for practice

1. A pentagonal pyramid, side of base 35 mm and axis 60 mm long, rests with its base on HP such that one of the edges of the base is perpendicular to VP. A sectional plane perpendicular to HP and parallel to VP cuts pyramid at a distance of 20 mm from the corner of the base nearer to the observer. Draw its top and sectional front view.
2. A square prism, side of base 30 mm and axis 60 mm long, rest with its base on HP and one of its rectangular faces inclined at 30° to VP. A section plane perpendicular to VP and inclined at 60° to HP cuts the axis of the prism at a point 20 mm from its top end. Draw the sectional top view and true shape of the section.
3. A hexagonal prism side of base 30 mm and axis 60 mm long rests with its base on HP such that one of its rectangular faces parallel to VP. A section plane perpendicular to HP and parallel to VP cuts the prism at a distance 10 mm from its axis. Draw its top and sectional front view.