SNS CCOLLEGE OF TECHNOLOGY, Coimbatore 641035
Department of Automobile Engineering
19MECT01 Engineering Graphics - Lecture Notes

## Problem:

A cone, base 40 mm diameter and axis 600 mm long, rests with its base on HP. A section plane perpendicular to VP, Parallel to one of the end generators and passing through a point on the axis 20 mm from the apex, cuts it. Draw sectional top view and true shape of the section.


Steps:

1. Keep the solid in simple position and draw the top view then complete the front view.
2. Pass the section plan perpendicular to HP and inclined to VP for the given inclination.
3. Marks the cutting points in the top view and transfer the cutting points from top view to front view for completing the sectional front view.
4. For obtaining true shape of the section, introduce the additional reference plane and draw the projectors from cutting points from the top view.
5. Marks the cutting points on the respective place.

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Problem:
A hexagonal pyramid, side of base 25 mm and axis 55 mm long, rests with its base on HP such that one of the edges of its base is perpendicular to VP. It is cut by a section plane perpendicular to HP, inclined at $45^{\circ}$ to VP and passing through the pyramid at a distance of 10 mm from the axis. Draw the sectional front view and true shape of the section.


Steps:

1. Keep the solid in simple position and draw the top view then complete the front view.
2. Pass the section plan perpendicular to HP and inclined to VP for the given inclination.
3. Marks the cutting points in the top view and transfer the cutting points from top view to front view for completing the sectional front view.
4. For obtaining true shape of the section, introduce the additional reference plane and draw the projectors from cutting points from the top view.
5. Marks the cutting points on the respective place.
