Roll No. | | | | | | | | | | | | | Total No. of Pages: 03

Total No. of Questions: 09

B.Tech. (2010 Batch) (Sem. – 1, 2)

ENGINEERING DRAWING AND COMPUTER GRAPHICS

M Code: 54013

Subject Code: ME-102

Paper ID: [A0125]

Time: 3 Hrs. Max. Marks: 60

INSTRUCTIONS TO CANDIDATES:

1. **SECTION-A is COMPULSORY consisting of TEN questions carrying TWO marks each.**
2. **SECTION - B & C have FOUR questions each.**
3. **Attempt any FIVE questions from SECTION B & C carrying EIGHT marks each, selecting at least TWO questions from each SECTION.**

SECTION A

1. a) What are the principal planes of projection; Show them with the help of a sketch.

   b) Draw the symbol of Ist & IIIrd Angle projections.

   c) What is a Profile plane and write its utility?

   d) Draw the trace of a line when it is parallel to VP and inclined to HP. Name the trace.

   e) What do you understand by an auxillary vertical plane (AVP) and an auxillary inclined plane (AIP)?

   f) Name the two methods of development used for the development of a sphere.

   g) What are the solids of revolutions; name them and how they are generated?

   h) What is the difference between an isometric view and an isometric projection?

   i) Draw the frustum of a cone.

   j) What is meant by Representative Factor (RF)? Give some suitable example.

SECTION B

2. Construct a diagonal scale to read meters, decimeters and centimeters for a RF of 1/50 and long enough to measure up-to 5 meters. Show it on the scale a length of 2.89 meters and 4.44 meters.

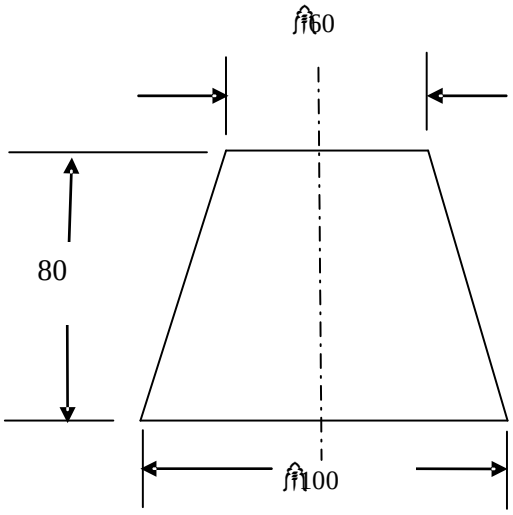
3. A point P is 25 mm in front of VP and 40 mm above HP. Another point Q is 40 mm in front of VP and 25 mm above HP. The distance between the projectors is 40mm. Draw the projections.

4. A regular pentagonal lamina of 25mm side has one of its one side in HP, its plane is inclined at an angle of 30 to HP and perpendicular to VP. Draw its projections.

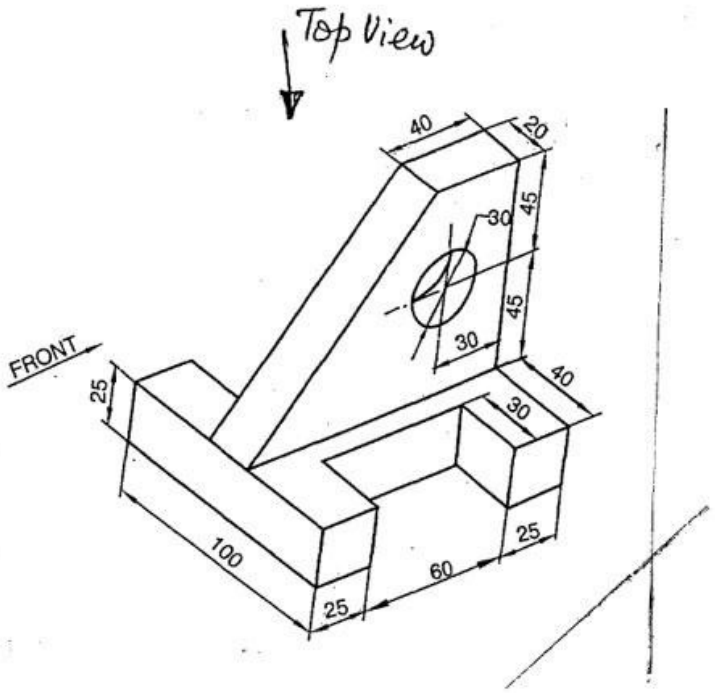
5. A hexagonal prism, base edge 20mm and height 50mm is resting on an edge of its base in HP in such a way that the base makes an angle of 45 with the HP. Draw the projection of the prism.

SECTION C

6. Draw the isometric view of the frustum of the cone as shown below:



7. Draw the front view and top view of the object shown below as indicated by arrows.



8. A vertical cylinder of 50mm dia and height 70 mm resting on its base on horizontal plane is completely penetrated by another cylinder of same dia and length. Their axes bisect each other at right angles and are parallel to VP. Draw their projections showing lines of penetration.

9. Draw the development of a sphere of 50 mm dia by Zone Method.