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Total No. of Pages : 02

Total No. of Questions : 09

**B.Tech. (2005-2010 Batches) (Sem.-1st & 2nd)**  
**ENGG. DRAWING & COMPUTER GRAPHICS**  
**Subject Code : ME-102**  
**Paper ID : [A0125]**

Time : 3 Hrs.

Max. Marks : 60

**INSTRUCTION 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.
4. Select atleast **TWO** questions from **SECTION - B & C**.

**SECTION-A****I. Answer briefly :**

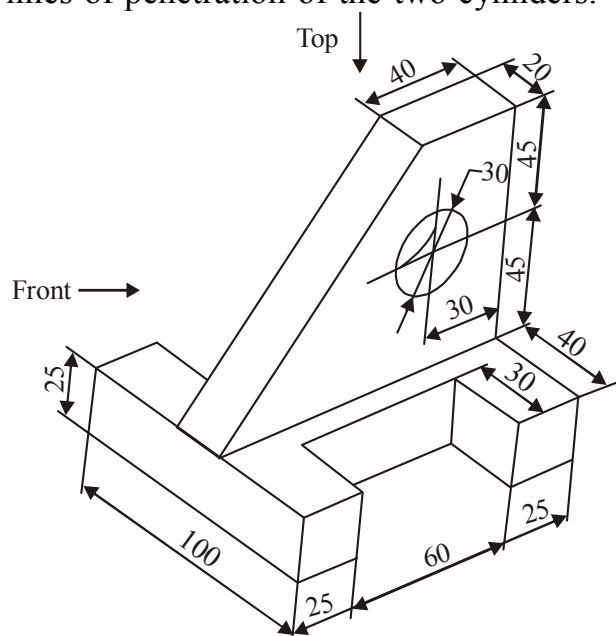
- (a) Show the aligned system of dimensioning with the help of a sketch.
- (b) Mention the necessary information for the construction of a scale.
- (c) Draw the symbols of Ist angle and IIIrd angle projections.
- (d) What is meant by a Profile Plane and state its use?
- (e) What is an isometric view? Define it.
- (f) Draw the projection of a point 10 mm below HP and 30 mm behind V.P.
- (g) Write down the various methods of finding the true lengths of a line.
- (h) What do you mean by Polyhedra and write down its three types?
- (i) Draw the cone when it is truncated.
- (j) Write down the methods of finding the lines of intersection of surfaces.

### SECTION-B

2. Write the following sentence using 7 : 4 ratio, 12 mm height and single stroke vertical letters using guide lines.  
 “DRAWING IS THE LANGUAGE OF AN ENGINEER.” (8)
3. Construct a diagonal scale to read metres, decimetres and centimetres for a RF of 1/50 and long enough to measure upto 5 metres, Show a length of 2.89 metres and 4.44 metres on the scale. (8)
4. A straight line AB, 60 mm long has its A in both HP & VP. The straight line is inclined to HP at  $45^\circ$  and  $30^\circ$  to V.P. Draw its projections. (8)
5. A pentagonal pyramid, side of base 25 mm and height 45 mm is resting on one of its triangular faces on the horizontal plane with its axis parallel to V.P. Draw its projections. (8)

### SECTION-C

6. A cylindrical slab of 70 mm dia and 40 mm thick is surmounted by a cube of 30 mm edge. Draw the isometric projection of the solids. (8)
7. A right regular hexagonal prism of 25 mm base edge and height 60 mm is truncated from the top in a manner that the cutting plane passes through the top edge point and making an angle of  $30^\circ$  with HP. It may be assumed that the hexagon is resting in H.P. Draw the development of the surface of the prism. (8)
8. A cylinder of 50 mm dia and height 70 mm standing on its base in HP, is completely penetrated by another cylinder of the same dia and length. The axes bisect each other at right angles and are parallel to V.P. Draw their projections showing lines of penetration of the two cylinders. (8)
9. Draw the front view and Top view of the object shown below. Free hand sketching is allowed. (All dimensions are in mm).



(8)