**Roll No.** ⬚⬚⬚⬚⬚⬚⬚⬚⬚⬚⬚⬚⬚                    **Total No. of Pages : 02**

**Total No. of Questions : 09**

**B.Tech.(2011 Onwards) (Sem.–1,2)**
# ENGINEERING DRAWING
**Subject Code : BTME-102**
**Paper ID : [A1110]**

**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

l. **Write briefly :**

(a) Name the various types of lines.

(b) Where and why a cutting plane is drawn in a drawing?

(c) Define Plane.

(d) Draw a symbol of first angle projections.

(e) What is the principle of development of surfaces?

(f) What is the trace of a straight line?

(g) Why the projections of an object are not drawn in $2^{nd}$ and $4^{th}$ quadrants?

(h) What are Auxiliary planes?

(i) What do you understand by V.T. and H.T. of section plane?

(j) How many minimum dimensions solid planes have?

**SECTION-B**

2. What is Engineering Drawing? Write about technical lettering as per the BIS codes.

3. A vertical cylinder of 60mm diameter and height 80mm standing on its base on H.P, is completely penetrated by a horizontal cylinder of 40mm diameter and 80mm long such that their axes bisect each other at right angles and are parallel to V.P. Draw the curves of interpenetration in front view.

4. A straight line AB 50mm long makes an angle of 30° to the HP. The end A is 12 mm above the HP and 15 mm in front of the VP. Draw the top view and front view of the line AB.

5. Write short note on types of projections.

**SECTION-C**

6. A square prism of side 30 mm 40 mm height is resting on HP. A vertical square bore of 10mm side is cut through its face reaching other square face of the prism. Draw the isometric projection of the prism.

7. An equilateral triangle of 30mm sides has a corner in VP and 20mm away from HP. Draw its projections and traces when the plane is parallel to the HP and one of its sides inclined at 45° to the VP.

8. Draw the projections of a square pyramid of base edges 30mm and axis 54mm, resting on its base on HP with one base edges parallel to VP and axis perpendicular to the HP.

9. Draw the isometric view of the drawing as shown in Figure.