

Roll No.

Total No. of Pages : 03

Total No. of Questions : 09

B.Tech. (2011 to 2017) (Sem.-1,2)

**ENGINEERING DRAWING**

Subject Code : BTME-102

Paper ID : [A1110]

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

**SECTION-A**

**1. Answer briefly :**

- a) Give an example of the aligned system of dimensioning.
- b) Draw the symbol of third angle projection system.
- c) What is the meaning of hatching?
- d) Draw any two types of lines and give their applications.
- e) What is Single Stroke Vertical Gothic Lettering? Give an example.
- f) What do you understand by horizontal trace of a line?
- g) Draw the projections of a point P which is 20 mm below HP and 30 mm behind VP.
- h) What is an auxiliary plane?
- i) Give an example of regular polyhedra.
- j) Draw the plan and elevation of a 50 mm long line AB which is parallel to both the principal planes.

**SECTION-B**

2. A line AB, 60 mm long, is inclined at  $30^\circ$  to VP and  $45^\circ$  to HP. Its mid-point P is 35 mm above HP and 40 mm in front of VP. Draw its top view, front view and left side view.
3. An end of a line is on HP. Front view of the line measuring 70 mm makes an angle of  $30^\circ$  to XY and its VT is 15 mm below HP. Draw the projections of the line if it is inclined at  $30^\circ$  to VP. Find true length and  $\theta$ . Also locate the HT.
4. A regular pentagonal lamina of side 40 mm has one of its edges in VP and this edge is inclined at  $45^\circ$  to HP. The surface of the lamina makes an angle of  $30^\circ$  with VP. Draw its projections.
5. A right circular cone of base diameter 50 mm and height 70 mm, rests on one of its generators on HP and its axis is inclined at  $45^\circ$  to VP. Draw its projections.

**SECTION-C**

6. Pictorial view of a bracket is shown in Figure 1 below. Looking in the direction 'X', draw its front view on sectional plane AA and full left side view.

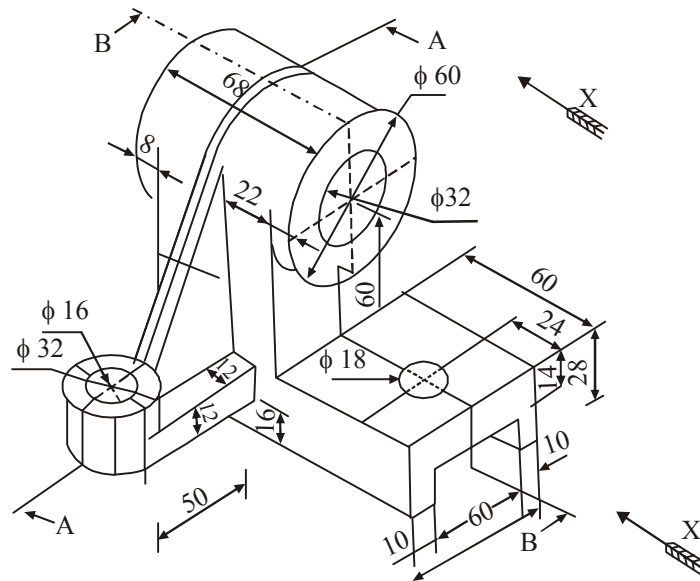


Figure - 1

7. The axis of an oblique regular hexagonal pyramid, base edge 30 mm and height 60 mm, is inclined to the vertical at an angle of  $30^\circ$ . Develop the lateral surfaces of the solid.

8. A square prism, edge of the base 30 mm and height 60 mm is resting on its base on HP. It is completely penetrated by another square prism of 20 mm base edge and height 60 mm such that the axis of the penetrating prism is perpendicular to and 10 mm in front of the axis of the vertical prism. The rectangular faces of the two prisms are equally inclined to VP. Draw the projections of the solids showing lines of intersection.
  
9. Three orthographic views of an object in THIRD ANGLE are shown in Figure 2 below. Draw its isometric view.

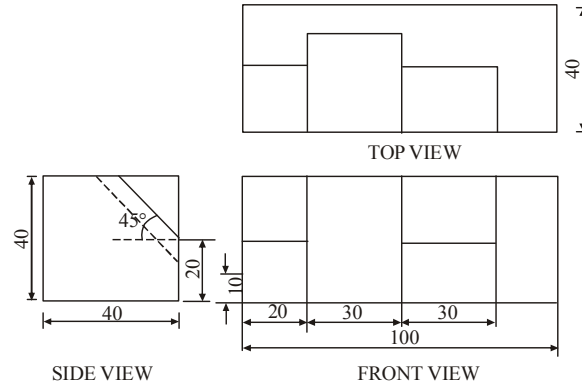


Figure - 2