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

Total No. of Questions : 18

B.Tech. (ECE/ME/IT/CSE) (Sem.–1,2)

# ENGINEERING DRAWING

Subject Code : ME-102

M.Code : 54013

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

**Write short notes on :**

1) What do you understand by horizontal trace of a line?

2) Draw the symbol of first angle projection system.

3) What do you mean by single stroke letters?

4) Draw any two types of lines and give their applications.

5) What is the meaning of apparent inclination of a straight line?

6) What is a representative fraction?

7) Draw the projections of a point P which is 20 mm below HP and 30 mm behind VP.

8) What are principal planes?

9) Show the development of a right circular cone with neat freehand sketch.

10) Draw the plan and elevation of a 50 mm long line AB which is in VP and inclined to HP at 60°.

## SECTION-B

11) Construct a diagonal scale of representative fraction 1/400. It should be long enough to measure 60 metres. Mark a distance of 58.6 metres on this scale.

12) The distance between end projectors of a straight line AB is 40 mm. End A is 40 mm behind VP and 20 mm below HP and end B is 6 mm behind VP. The line is inclined at 30° to the VP. Draw the projections of line and show its VT and HT. Also find out the true length of the line and θ.

13) A pentagonal prism of base side 40 mm and height 70 mm has a circular hole of diameter 36 mm running centrally through it along the axis. Draw its projections when one of its base corners is in HP and the longer edge through that corner makes an angle of 45° with HP.

14) A right regular hexagonal pyramid, side of the base 40 mm and axis 80 mm long is lying on one of its triangular faces on HP with the axis parallel to VP. A vertical sectional plane inclined at 45° to VP cuts through the centre of the base, the apex being retained. Draw the top view and sectional front view.

## SECTION-C

15) Two orthographic views of an object are shown in Figure 1 below. Draw its isometric view.

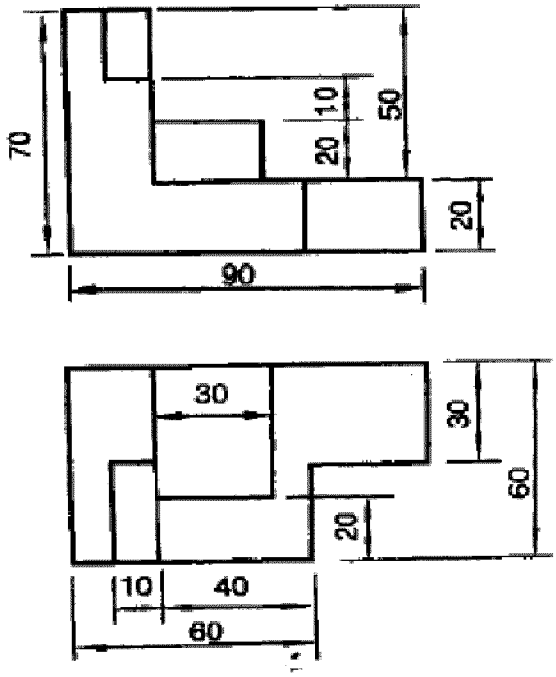


**FIG.1**

16) 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°. Develop the lateral surfaces of the solid.

17) Figure 2 below shows the pictorial view of a wall bracket. Draw its front view as seen from the direction 'A' and the top view.

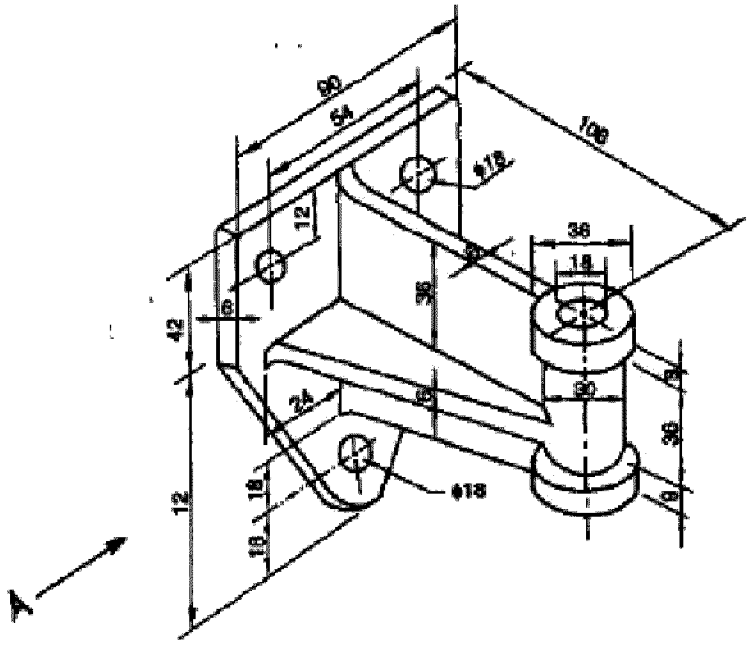


**FIG.2**

18) 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 a horizontal square pyramid of 30 mm base edge and height 60 mm such that their axes bisect each other at right angles. The base edges of the two solids are equally inclined to VP. Draw the projections of the solids showing lines of intersection.

**NOTE : Disclosure of Identity by writing Mobile No. or Making of passing request on any page of Answer Sheet will lead to UMC against the Student.**