

B.E. First Semester (Fire Engineering) (C.B.S.)
Engineering Graphics – I Paper – VI

P. Pages : 3

Time : Three Hours



TKN/KS/16/7289

Max. Marks : 40

- Notes :
1. All questions carry marks as indicated.
 2. Solve Question 1 OR Questions No. 2.
 3. Solve Question 3 OR Questions No. 4.
 4. Solve Question 5 OR Questions No. 6.
 5. Solve Question 7 OR Questions No. 8.
 6. Due credit will be given to neatness and adequate dimensions.
 7. Assume suitable data whenever necessary.
 8. Retain the construction lines.
 9. Use of Drawing instruments is permitted.

1. a) Two points A and B are 80mm apart. Draw the curve traced out by a point moving in such a way that the difference between its distance from A and B is always constant and is equal to 30mm. **5**

b) The top view and the front view of the line CD measure 75mm and 63mm respectively. The line is inclined to H.P. and V.P. by 40° and 45° respectively. The end C is 5mm above the HP and 20mm in front of VP. Draw the projections of the line CD and find True length. **5**

OR

2. a) A boy standing on the terrace of a building of 15m height throws a ball, which has its highest Height and just crosses a tree of 25m height. Trace the path of the ball, if the distance between the building and the tree is 8m. **5**

b) A line AB has its end A 15mm above HP and 10mm in front of VP. The end B is 60mm above HP. The distance between the end projectors is 50mm. The line is inclined to HP by 25° . Draw the projections and find its inclination with VP and the true length of line AB. **5**

3. a) An isosceles triangle of base 50mm and altitude 70mm is seen as equilateral triangle of 50mm side in front view with one side inclined at 45° to xy. Draw its top view and determine its surface inclination with the V.P. **5**

b) A regular pentagon of 35mm side is resting on one of its side on H.P and the corner opposite to that edge is 30mm above H.P. and the side on which it is resting makes an angle 45° with V.P. Draw its projections (three views). **5**

OR

4. A square pyramid. Side of base 50mm and axis 30mm long. has one of its triangular faces in the VP and edge of its base contained by that face makes an angle of 45° with the HP. Draw its projections. (Three views) **10**

5. a) Fig1, shows the pictorial view of an object. Draw its
 i) Top view.
 ii) Front view looking in the direction X Give dimensions and Scale used.

5

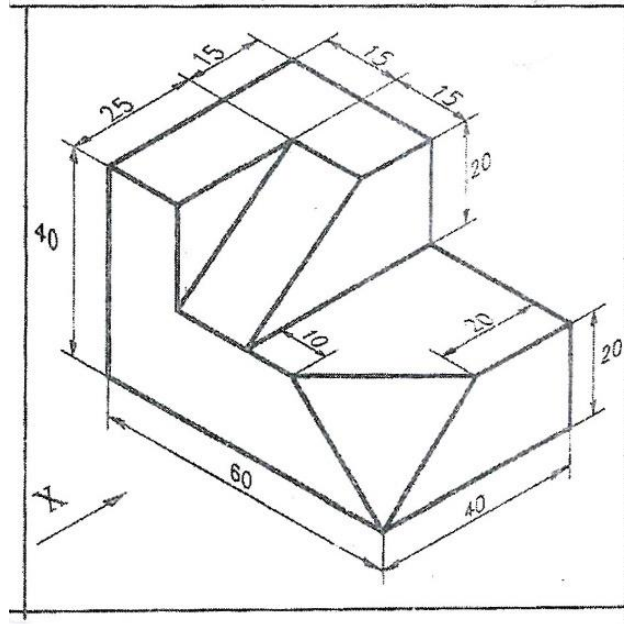


Fig. 1

- b) Fig 2 shows pictorial view of an object. Draw following views:
 i) Front view looking in the direction X.
 ii) Side view looking in the direction Y Give dimensions and Scale used.

5

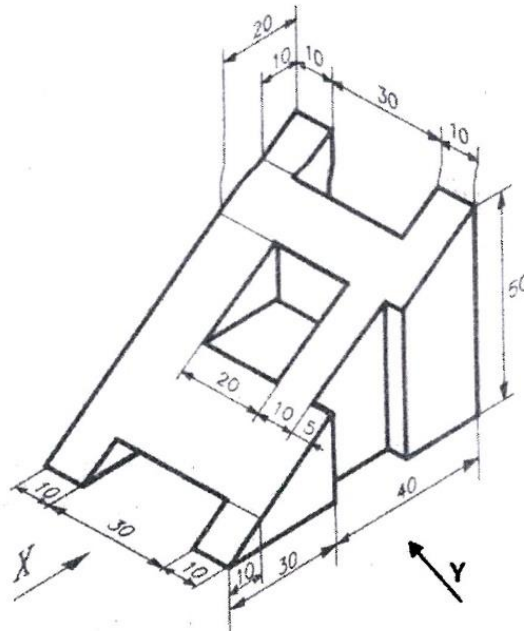


Fig. 2

OR

6. Fig 3 shows pictorial view of a machine component. Draw following views.
 i) Front view looking in the direction X
 ii) Top view.
 iii) Left hand side view.
 Give dimensions, scale used and also draw projection symbol.

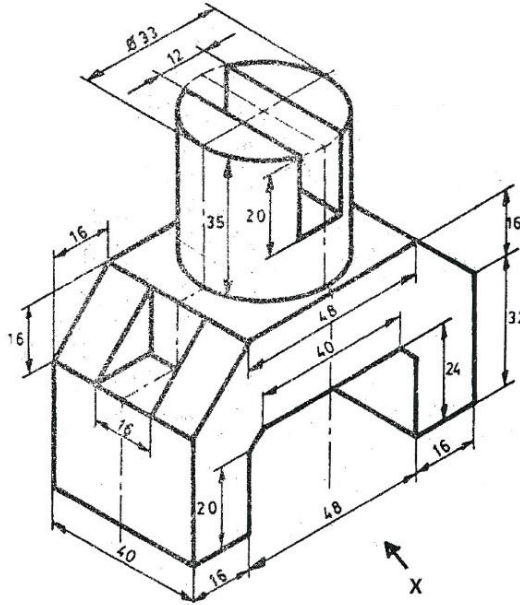


Fig. 3

7. Fig 4 shows front view and top view of an object. Draw isometric view. Indicate direction of viewing.

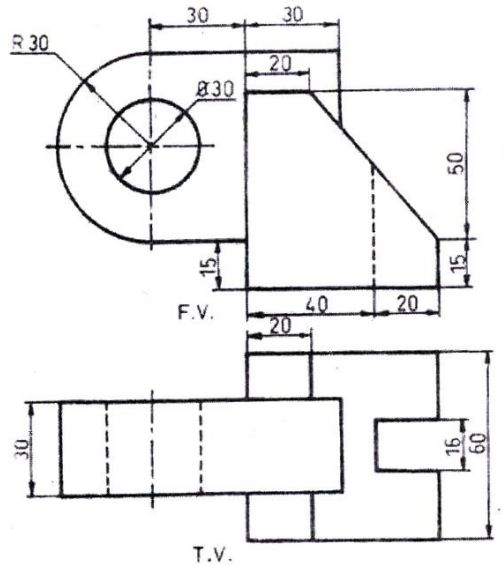


Fig. 4

OR

8. A Cube of 50mm edge is placed on the cylindrical slab of 100mm diameter and 40mm thick. Edge of base of cube is perpendicular to VP. Draw the isometric projection of the assembly of solid having their common axis vertical. Also construct the isometric scale.

10
