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

P. Pages : 3   **TKN/KS/16/7289**
Time : Three Hours

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Max. Marks : 40

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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   **5**
a way that the difference between its distance from A and B is always constant and is equal
to 30mm.

b)   The top view and the front view of the line CD measure 75mm and 63mm respectively. The   **5**
line is inclined to H.P. and V.P. by 40º and 45º 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.

OR

2.   a)   A boy standing on the terrace of a building of 15m height throws a ball, which has its highest   **5**
Hight 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.

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

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

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

OR

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

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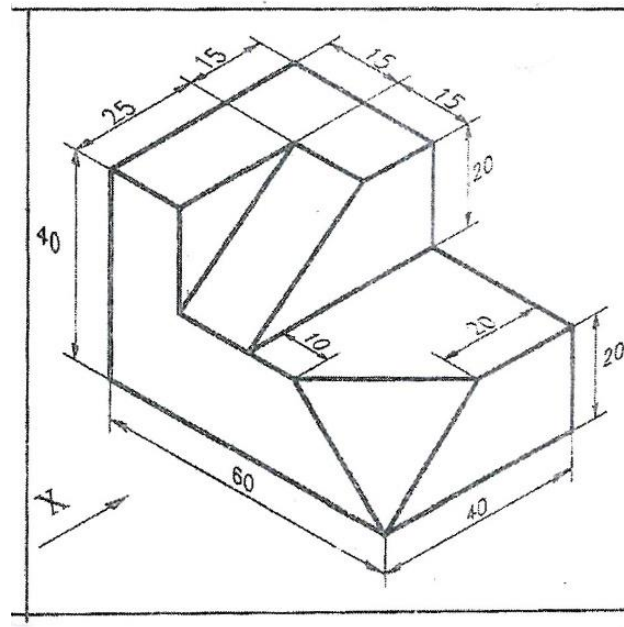

Fig. 1

b) Fig 2 shows pictorial view of an object. Draw following views: **5**

   i) Front view looking in the direction X.

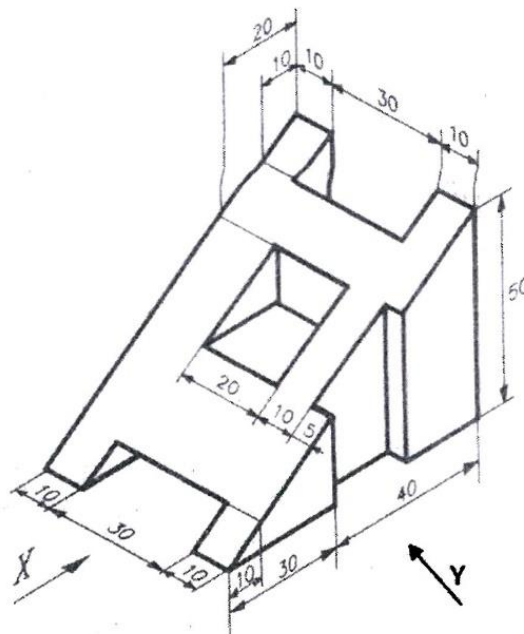   ii) Side view looking in the direction Y Give dimensions and Scale used.

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.
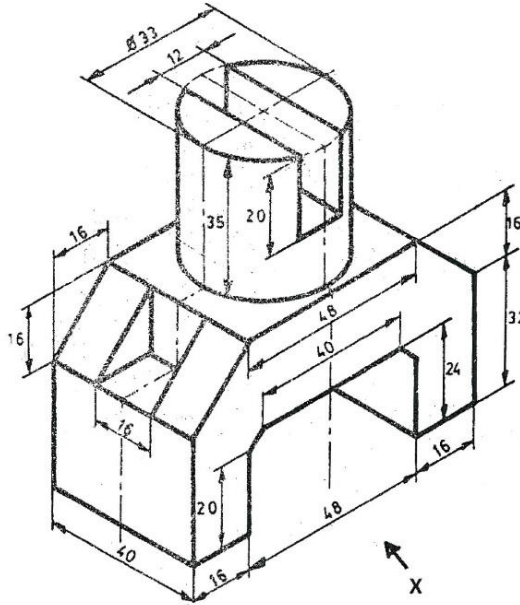Give dimensions, scale used and also draw projection symbol.

Fig. 3

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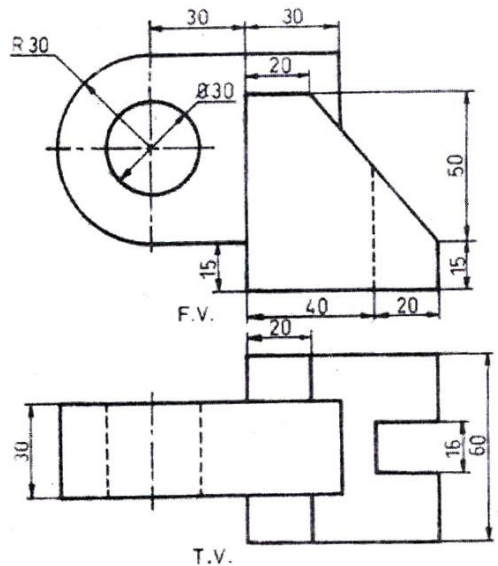

Fig. 4

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**

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