

COLLEGE OF ENGINEERING, PUNE

(An autonomous institute of Govt. of Maharashtra)

End Term Exam (Spring 2012-13)

Engineering Graphics (Electrical Stream)

Programme: - F.Y. B. TECH (Morning Session)

Duration: - Three Hours

Date: - 04/12/2012

Marks: - 60

Instructions:

- 1) Question No.1 is compulsory.
- 2) Solve any one question from question no. 2a) & 2b).
- 3) Assume suitable data if required.
- 4) Use of scientific calculator is not allowed.
- 5) Retain all the construction lines and external constructions.
- 6) Dimensioning, line work carry due credits.

Q.1) **Figure no. 1** shows the pictorial view of an object. Draw to scale full size, by using first angle method of projection -

- a) Front View looking in the direction of arrow X    b) Top View and    c) Right hand side view

(10 Marks)

Q.2a) A line AB is in first quadrant .Its ends A and B are 20 mm and 60 mm in front of the VP respectively. Distance between the end projectors is 75mm .The line is inclined at  $30^\circ$  to the HP and its HT is 10 mm above XY .Draw the projections of AB and determine its true length and VT.

(14 Marks)

OR

Q.2b) A thin square sheet of metal ABCD , side 60 mm has a 30 mm square hole punched centrally through it such that the sides of the hole are parallel to the diagonals of the sheet. Draw the FV and TV of the sheet when it has its side AB in the HP and parallel to the VP, while the plane of the sheet is inclined at  $30^\circ$  to the HP. Use first angle method of projection.

(14 Marks)

Q.3) **Figure no. 2** shows the F.V and T.V of an object. Draw its Isometric view from the origin O as shown in figure. Retain the construction lines.

(18 Marks)

Q.4) Two orthographic views of an object are given in **Figure no. 3** by the first angle method of projection .Using same method of projection draw the following ;

- a) Elevation,    b) Plan &    c) Sectional L.H.S.V ,section along A-A.

(18 Marks)

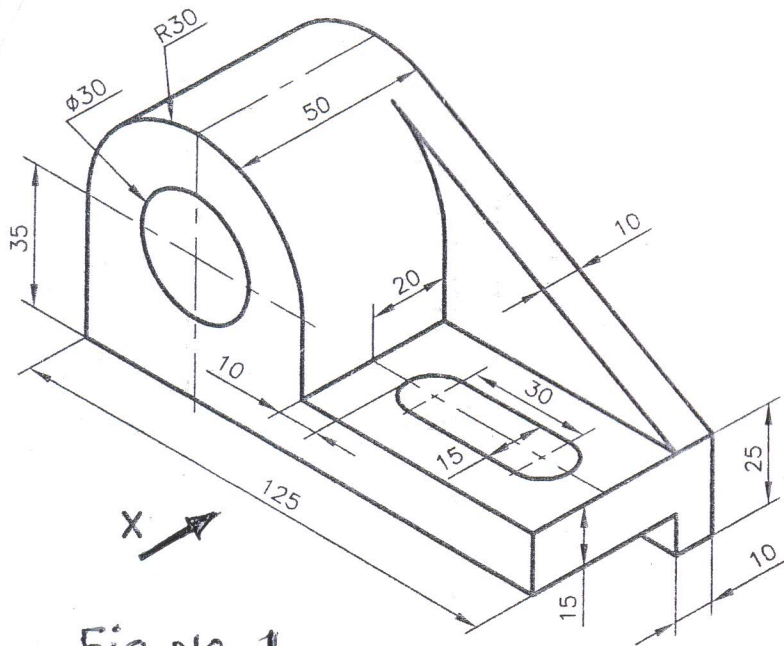
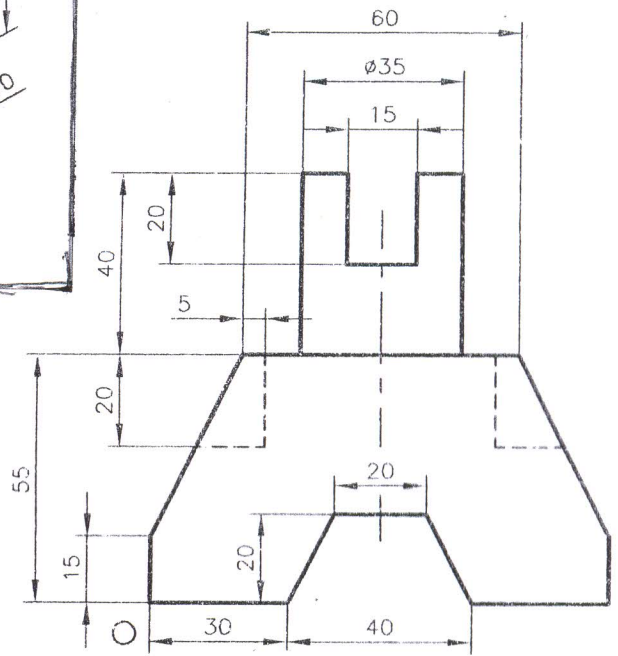
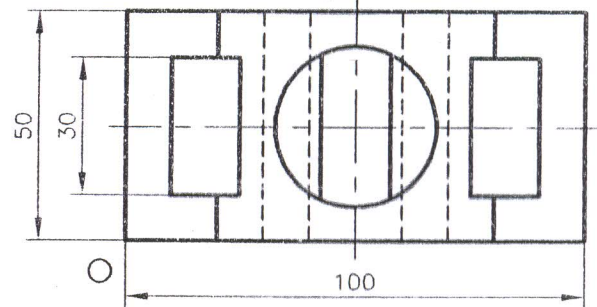


Fig. No-1  
(Q. No-1)



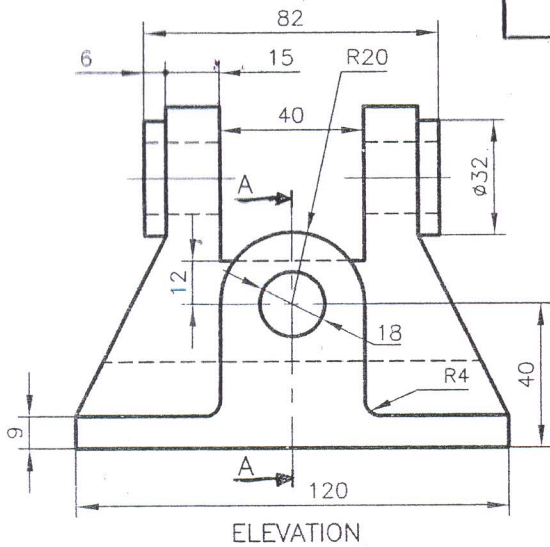
Front View



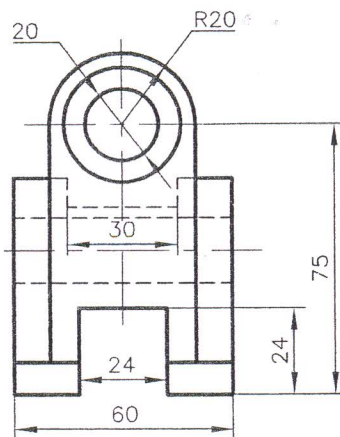
Top View

(Q. No. 3)

Fig. No. 2



ELEVATION



END-VIEW

Fig. No-3  
(Q. No. 4)