* U E - 6 0 1 7 *

UE-6017

First Year B. E. (Sem. I & II) Examination

April/May – 2012

Engineering Drawing

Time : **3** Hours] [Total Marks : **100**

Instructions :

(1)

નીચે દર્શાવેલ ☛ નિશાનીવાળી વિગતો ઉત્તરવહી પર અવશ્ય લખવી.
Fillup strictly the details of ☛ signs on your answer book.

Name of the Examination :

☛ F. Y. B. E. (SEM. 1 & 2)

Name of the Subject :

☛ ENGINEERING DRAWING

☛ Subject Code No. : 6 0 1 7 ☛ Section No. (1, 2,.....) : Nil

Seat No. :

Student's Signature

(2) Attempt all questions.

(3) Use your own judgement for missing data of dimensions. All dimensions are in mm.

(4) Do not write dimensions. No marks for it.

(5) Isometric scale is not necessary.

(6) Figures to the right indicate full marks.

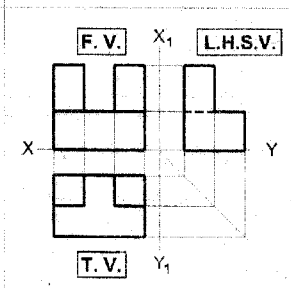
1(a) Answer the following : (4)

(1) Draw symbol of first angle projection method

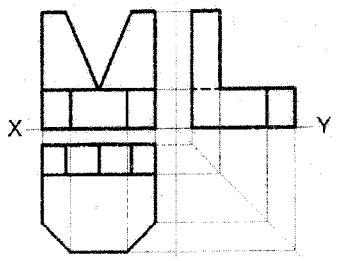
(2) Draw symbol of third angle projection method

1(b) Draw free hand isometric view for the following : (6)

(1)



(2)



2 (a) A pictorial view of an object is shown in figure 1. Draw (20)
i) Front view looking in the direction X ii) Top view

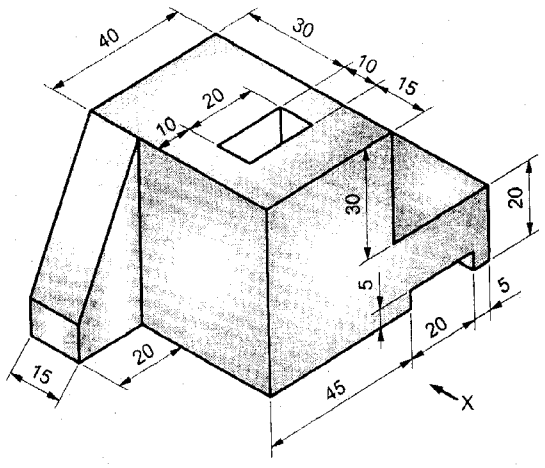


Figure 1

Q2 (b) Figure 2 below shows Front View and R.H.S. View of the object. (20)
(i) Draw Sectional front view along section A - A. (ii) Top View

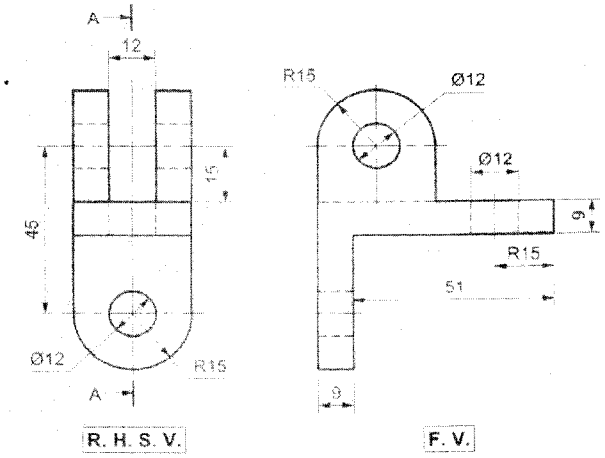


Figure 2

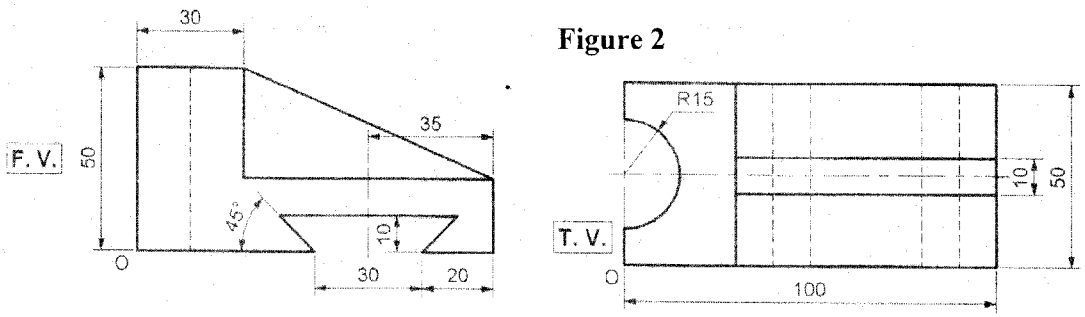


Figure 3

OR

Q2(b) (20)
Figure 3 shows front view and top view of an object .Draw its isometric view

Q3(a) Answer the following questions: (10)

i) Development of which solid can be a semicircular area
ii) Name the true shape of section, when section plane cutting a cone is inclined to axis and parallel to one of the generators of the cone.
iii) Define eccentricity
iv) Name the true shape of section, when section plane cutting a cone is parallel to the base of the cone or perpendicular to the axis of the cone.
v) Write down the applications of parabola.

Q3 (b) (10)

A pentagonal prism, 30 mm base side & 50 mm axis is standing on Hp on its base whose one side is perpendicular to Vp. It is cut by a section plane 45^0 inclined to HP, through midpoint of axis. Draw Development of surface of remaining solid and true shape of the section.

OR

Q3 (b) (10)

A square prism is having the side of base 40 mm and the height 80 mm. It is resting with its base on the HP such that all the vertical faces of prism are equally inclined to the VP.A hole of 40 mm diameter is drilled centrally through the prism such that the axis of the hole is at 90^0 to the V.P. Draw the plan and the elevation of the prism. Show the development of the lateral surfaces of the prism.

Q4 (15)

A cone, base diameter 50 mm and axis length 60 mm is kept on the HP on a point of its base circle in such a way that its axis makes an angle of 30^0 with HP. Draw the projections of the cone when plan of axis is making 45^0 to the XY line.

OR

Q4 (15)

A square prism, side of base 40 mm and axis length 30 mm is kept on the HP on one of its base edges in such a way that its axis makes an angle of 45^0 to the HP. Draw the projections of the prism when the side of base which is on the HP is making an angle of 30^0 with the VP.

Q5 (15)

A square prism 30 mm base sides and 70 mm axis is completely penetrated by another square prism of 25 mm sides and 70 mm axis horizontally. Both axes intersect and bisect each other. All faces of prisms are equally inclined to VP. Draw projections showing curves of intersections.

OR

Q5 (15)

A vertical cylinder with a diameter of 70 mm and a height of 90 mm is penetrated by a horizontal cylinder with a diameter of 50 mm and a length of 120 mm. The axis of the horizontal cylinder is parallel to the VP. The axes of both the cylinders intersect at their midpoints. Draw three views of the cylinders showing COI.