* K C - 6 0 1 7 *

KC-6017

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

November / December – 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.

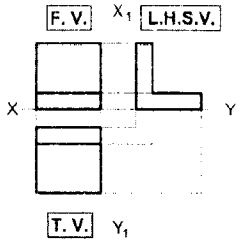
1(a) Answer the following: (4)

(1) What is orthographic projection?

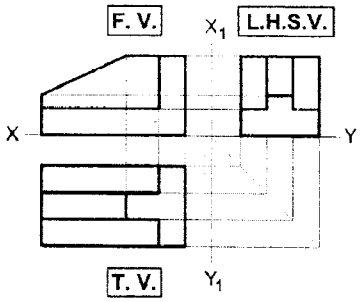
(2) Draw symbol of first angle projection method.

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

(1)



(2)



2 (a). A pictorial view of an object is shown in fig 1. Draw, (20)

i) Sectional Front view looking in the direction X (10 MARKS)

ii) Top view (10 MARKS)

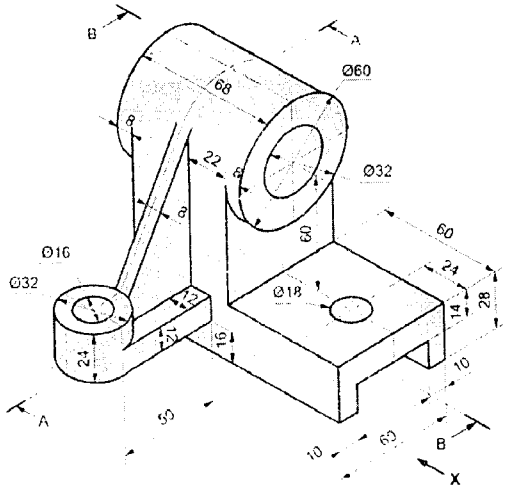


FIGURE 1

2 (b) Figures below shows Front View and R.H.S.V. of the object. (20)
(i) Draw Sectional front view along section A - A. (10 MARKS)
(ii) Top View (10 MARKS)

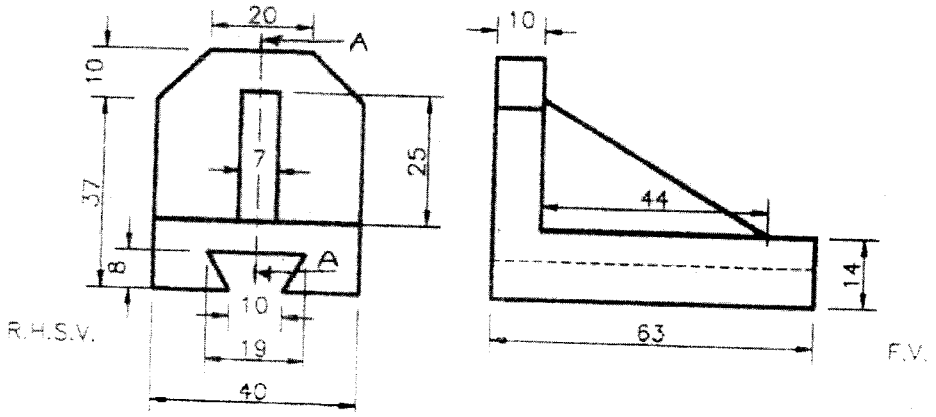


Figure 2

OR

2(b) Draw isometric view for figure 2 (20)

3(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) A parabola can be obtained by cutting a cylinder true or false?
iv) Name the curve obtained if eccentricity is more than 1.
v) Name the two methods to draw the development of surfaces.

3 (b) 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. (10)

OR

3 (b) A square prism, side of base 50 mm and height 75 mm, is resting on HP on its base with all vertical faces equally inclined to VP. Hole of 60 mm diameter is drilled centrally through the prism. Axis of the hole is perpendicular to VP. Draw the development of only the lateral surfaces of the prism. (10)

4. A square pyramid, side of base 50 mm and axis length 60 mm is kept on HP on one of its base edges in such a way that its axis makes an angle of 45^0 with HP. If the base edge which is on HP makes an angle of 45^0 with the VP, draw the projections when apex is 30 mm away from VP. (15)

OR

4. 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. (15)

5. 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. (15)

OR

5. A vertical cone, base diameter 75 mm and axis 100 mm long, is completely penetrated by a cylinder of 45 mm diameter. The axis of the cylinder is parallel to HP and VP and intersects axis of the cone at a point 28 mm above the base. Draw projections showing curves of intersection. (15)