



RM-6017

B. E. - I (Sem. I & II) (All) Examination

May / June - 2010

Engineering Drawing

Time : Hours]

[Total Marks :

Instructions :

(1)

नीचे दृशविवेक निशानीवाणी विगतो उत्तरवडी पर अवश्य लखवी.  
 Fillup strictly the details of signs on your answer book.

Seat No. :

Name of the Examination :

Name of the Subject :

Subject Code No. :     Section No. (1, 2,.....):

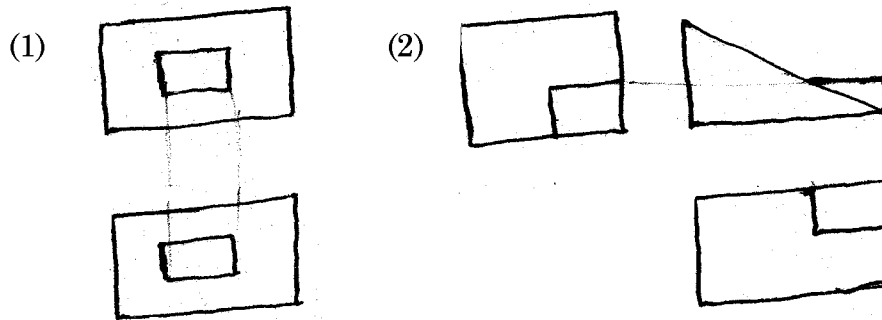
Student's Signature

(2) Assume suitable dimensions, if necessary.

(3) No marks for dimensioning.

SECTION - I

1 (a) Make free-hand isometric view for the following : 6



(b) Fig. 1 shows pictorial view. Draw :  
 (i) Front view in the direction from X given 7  
 (ii) Full sectional L.H.S.V. 7

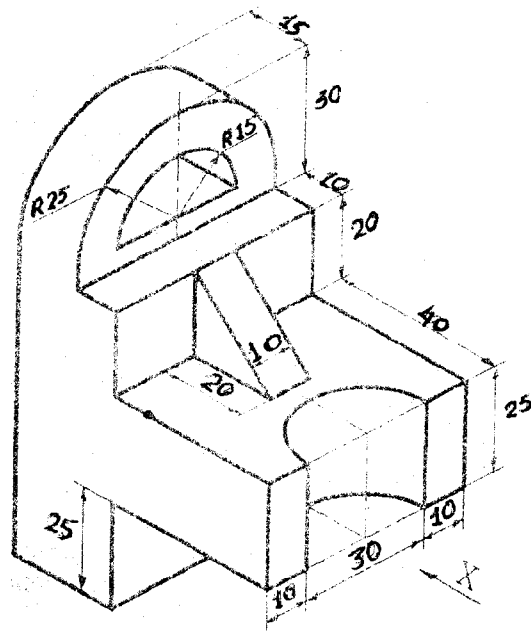


Fig. 1

- (c) Draw missing L.H.S.V. for the Fig. 2. 10  
 (Do not redraw the views given in Fig. 2. Draw only answer)

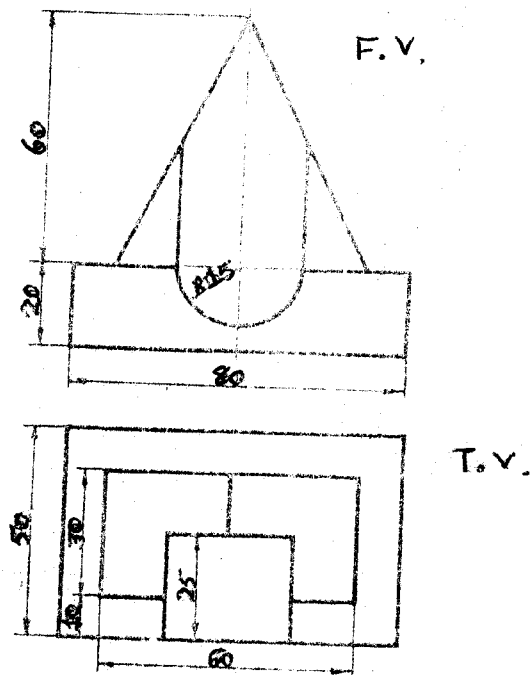


Fig. 2

2 Draw isometric view for Fig. 2 or Fig. 3.

20

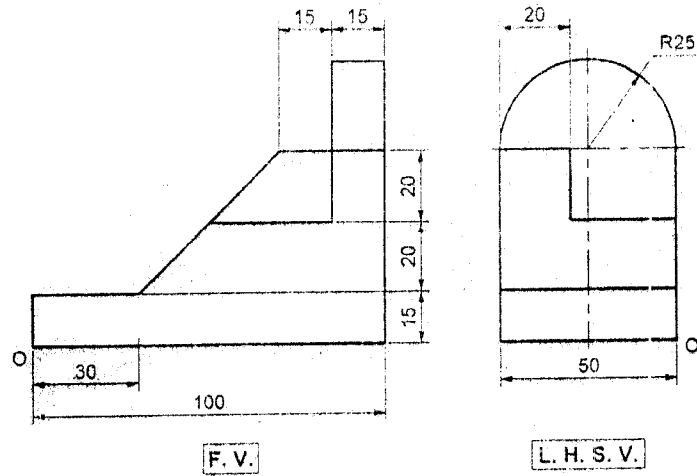


Fig. 3

3 (a) Answer the following questions with sketch : 10

- (i) Development of which solid can be semicircular area.
- (ii) If the cylinder is cut by a plane such that the true shape of the section is an ellipse having major axis is double than minor axis then find angle between cutting plane and axis of cylinder.
- (iii) If a plane is passing through the apex and only one point on the circular base of a cone then find out area of section.
- (iv) If section of a cylinder by a plane is rectangle then find angle between plane and axis of cylinder.
- (v) Name a solid which is cut by a plane in any position then the section is always circular area.

(b) Draw the development of lateral surface of the lower portion of hexagonal pyramid which is cut by a plane passing from a point of axis 20 mm below apex of pyramid and making angle of  $45^\circ$  with axis. Height and base side of pyramid are 80 mm and 20 mm. 10

OR

Draw the development of lateral surface of the cone which is cut by a plane passing from a point of axis 20 mm above the base of cone and making angle of  $45^\circ$  with axis. Height and base diameter of cone are 80 mm and 50 mm.

- 4 A pentagonal pyramid, base 25 mm side and axis 50 mm long has one of its triangular faces in the V.P. and the edge of the base contained by that face makes an angle of  $30^\circ$  with the H.P. Draw its projections. 15

OR

- A pentagonal prism, base 28 mm side and height 65 mm has an edge of its base on the ground and the axis parallel to the V.P. and inclined at  $60^\circ$  to the H.P. A section plane perpendicular to VP and making an angle of  $60^\circ$  with the H.P. and passing through the highest corner of the prism, cuts the prism. Draw the sectional top view and true shape of the section. 15
- 5 A vertical square prism, base 50 mm side is completely penetrated by a horizontal square prism, base 35 mm side so that their axis are 6 mm apart. The axis of the horizontal prism is parallel to the V.P., while the faces of both the prisms are equally inclined to the V.P. Draw the projections of the prisms showing lines of intersection. 15

OR

- A vertical cylinder of 75 mm diameter is penetrated by another cylinder of 50 mm diameter, the axis of which is parallel to both H.P. and V.P. The two axis are 9 mm apart. Draw the projection showing curve of intersection. 15

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