

00391

**B.TECH. (AEROSPACE ENGINEERING)  
(BTAE)**

**Term-End Examination  
June, 2011**

**BAS-005 : ENGINEERING DRAWING**

*Time : 3 hours*

*Maximum Marks : 70*

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*Note : Attempt any five questions. All questions carry equal marks. Assume any missing data suitably.*

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1. Draw an arc of given radius R, touching two circles (Draw both internal arc and external arc) 14
2. An ellipse has major and minor axes as 65 mm and 45 mm respectively. Draw the ellipse. Choose a point at 60 mm on major axis and 40 mm on minor axis and draw tangent to ellipse at this point. 14
3. A regular hexagon of 60 mm side has its surface inclined at  $30^\circ$  to H.P. One corner of hexagon rests on H.P. and diagonal passing through this point makes an angle of  $60^\circ$  with the V.P. in top view. Draw the top view and elevation of the hexagon. 14

4. Draw two branches of a hyperbola, with the distance between their foci as 60 mm and vertices as 35 mm. Also draw the asymptotes and measure the angle between them. 14
5. Figure 1 shows certain machine block. Draw front and top views. 14

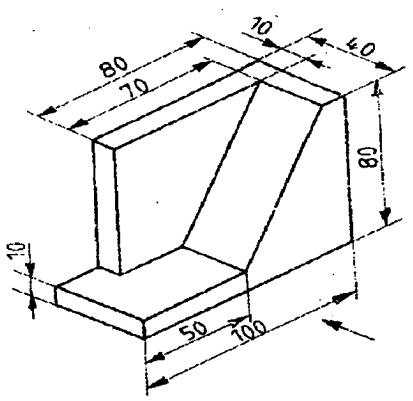


Figure 1.

6. A circular plane of 60 mm diameter, rests on V.P on a point A on its circumference. Its plane is inclined at  $45^\circ$  to V.P. Draw the projections of the plane when 14
- (a) the front view of the diameter AB makes  $30^\circ$  with H.P, and
  - (b) the diameter AB itself makes  $30^\circ$  with H.P.

7. A cone of 60 mm diameter and 70 mm height is cut by a section plane such that, the plane passes through the mid - point of the axis and tangential to the base circle. Draw the development of the lateral surface of the bottom part of the cone. 14
8. Figure 2 shows isometric views of certain objects. 14  
Draw the free - hand sketches of the orthographic views.

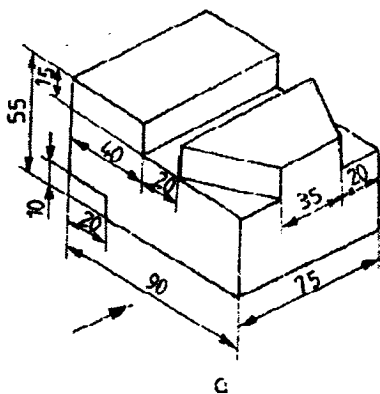


Figure 2.