No. of Printed Pages : **2 + Drawing Sheet**

**BAS-005**

# B.TECH. (AEROSPACE ENGINEERING) (BTAE / BTCLEVI / BTMEVI / BTCSVI / BTELVI / BTECV)

## Term-End Examination

## December, 2013

## BAS-005 : ENGINEERING DRAWING

*Time : 3 hours* *Maximum Marks : 70*

***Note :*** *Attempt **any five** questions. **All** questions carry **equal** marks.*

**1.** (a) 1% of the area of plot measuring 50m × 50m is used to construct a square room. Construct a scale of RF 1 : 100 to show the plan of the square room by using this scale. Show the plan of the room. **4**

(b) A link OA, 80mm long rotates about O in anticlockwise direction. A point M on the link, 20mm away from O, moves and reaches the end A, while the link has rotated through $\frac{2}{5}$ of a revolution. Assuming the movements of the link and the point to be uniform, trace the path of point M. **10**

**2.** A line AB, 75 mm long has one of its ends 50 mm infront of V.P. and 15 mm, above H.P. The top view of the line is 50 mm long. The other end is 15 mm in front of V.P and is above H.P. Draw the views and determine the true inclinations. **14**

3. A square prism, edge of base 25 mm and axis 45 mm long has its axis inclined at 45° to the H.P. and an edge of its base on which the prism rests is inclined at 30° to the V.P. Draw its projections. **14**

4. A cylinder of 40 mm diameter and 60 mm height and having its axis verticle, is cut by a section plane perpendicular to V.P. and inclined at 45°to H.P and intersecting the axis 32 mm above the base. Draw its front view, sectional top view and true shape of the section. **14**

5. A square pyramid with side of the base 30 mm and axis 50 mm long is resting on its base parallel to V.P. It is cut by a section plane perpendicular to V.P. and inclined at 45° to H.P. The section plane is passing through the mid-point of the axis. Draw the development of the surface of the cut pyramid. **14**

6. A sphere of 60 mm diameter is placed centrally on the top of a frustrum of square pyramid. The base of the frustrum is 60 mm square and top 40 mm square and its height is 50 mm. Draw the isometric projection of the arrangement. **14**

7. (a) What is CAD ? State the advantages of CAD. **6**

   (b) Explain any two methods of drawing a circle in Auto CAD. **4**

   (c) Name five edit commands used in CAD. **4**