

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

Term-End Examination

December, 2016

BAS-005 : ENGINEERING DRAWING

Time : 3 hours

Maximum Marks : 70

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

1. A line AB, 75 mm long, has one of its ends 50 mm in front of V.P. and 15 mm above the 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

2. A cylinder of 40 mm diameter and 60 mm height and having its axis vertical, 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 the true shape of the section.

14

3. A sphere of 60 mm diameter is placed centrally on the top of a frustum of a square pyramid. The base of the frustum is 60 mm square and top 40 mm square. Its height is 50 mm.

Draw the Isometric projection of the arrangement.

14

4. (a) Draw a parabola inside a rectangle of sides 50 mm \times 40 mm with axis parallel to the longer side. Locate the focus.

(b) Define epicycloid and hypocycloid.

9+5=14

5. Draw plan and elevation (full section) of a double riveted, double cover butt joint with number of rivets twice in the inner row.

Use the following data :

Plate thickness = 22 mm

Rivet dia. = 27 mm

Rivet hole dia. = 28.5 mm

Pitch = 69.6 mm

(In the inner row)

Back pitch = 65.03 mm

Thickness of cover plate = 18.5 mm

Show all dimensions on drawing.

14

6. Draw Front view, Side view and Top view of the object shown in Figure 1. Show all dimensions on drawing.

14

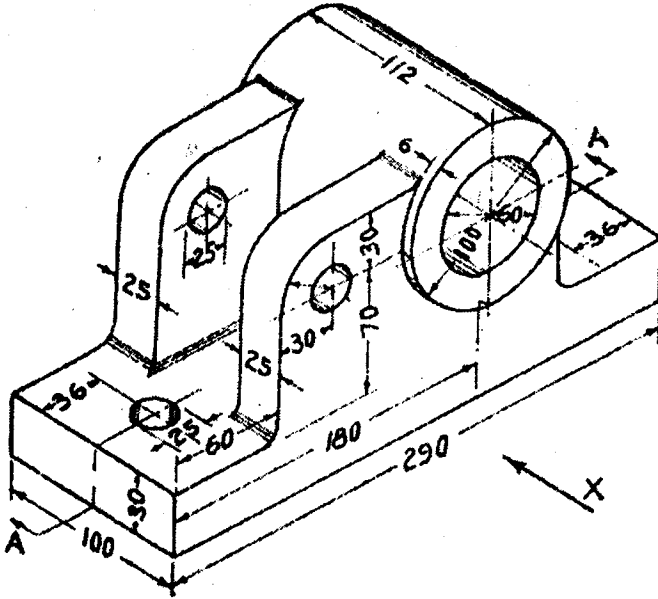


Figure 1

7. Sketch the Isometric view, Elevation, Side view and Top view for the following : 6+4+4=14
- (a) Hexagonal nut
 - (b) Square nut
 - (c) Flanged nut

