

B.Tech. AEROSPACE ENGINEERING (BTAE)

Term-End Examination, 2019

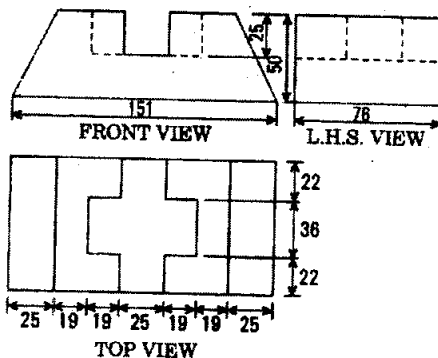
BAS-005 : ENGINEERING DRAWING

Time : 3 Hours]

[Maximum Marks: 70

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

1. The top view of a 80 mm long line AB measures 70 mm while the length of its front view is 55mm. Its one end A is 15 mm above H.P. and 15 mm in front of V.P. Draw the projections of the line AB and determine its inclinations with H.P. and V.P. [14]
2. Figure 1 shows elevation, side view and plan of an object. Draw its isometric view using 1st angle projection. [14]



(All dimension are in mm)

Figure 1

3. (a) Explain the various commands used for transformation of an object in Auto CAD. [7]
- (b) Describe any two methods of drawing a circle in Auto CAD. [7]
4. (a) Draw two views of a knuckle joint to connect rods of 36 mm diameter. The diameter of the fork end and eye end, each are 62 mm. The pin diameter is 36 mm. [9]
- (b) Sketch a square key of size $12 \times 12 \text{ mm}^2$ to be fitted in a shaft of diameter 48 mm. Show two views. [5]
5. (a) Sketch a Simple Bush Bearing. [7]
- (b) Sketch Split Muff Coupling (Two views). [7]
6. A cylinder of 40 mm diameter, 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]

7. Construct a branch of hyperbola, when the diameter of its focus from the directrix is 50 mm and its eccentricity is $3/2$. Also draw a tangent and a normal to the curve at point P on it. (Assume the point P suitably). [14]

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