

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

Term-End Examination

June, 2014

BAS-005 : ENGINEERING DRAWING

Time : 3 hours

Maximum Marks : 70

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

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1. (a) A 3.2 cm long line represents a length of 4 meters. Extend this line to measure lengths upto 25 metres and show on it units of 1.0 meter and 5 metres. Show the length of 17 m on this scale. 4
 - (b) A fountain jet discharges water from ground level at an inclination of 50° to the ground. The jet travels a horizontal distance of 8 m from the point of discharge and falls on the ground. Trace the path of the jet. Name the curve. 10
 2. The top view of a 75 mm long line PQ measures 65 mm, while the length of its front view is 50 mm, its one end P is 15 mm above H.P. and 15 mm in front of V.P. Draw the projections of line PQ and determine its inclinations with H.P. and V.P. 14
 3. A right pentagonal prism 90 mm high with each side of base 30 mm is resting on one of the edges on the horizontal plane and inclined at 30° to V.P. and the face containing that edge is inclined at 45° to H.P. Draw the projections of pentagonal prism. 14

4. A square pyramid of base 40 mm side and axis 70 mm long rests with its base on H.P. with all the edges of the base equally inclined to V.P. It is cut by a section plane inclined at 60° to the H.P. and passing through a point on the axis at 30 mm from the base. Draw the sectional top view and front view of the pyramid. **14**
5. A cylinder of diameter of base 40 mm and axis 55 mm long is resting on its base on H.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 top end of an extreme generator of the cylinder. Draw the development of the lateral surface of the cut cylinder. **14**
6. Draw an isometric projection of the frustrum of a hexagonal pyramid having base side 40 mm, top side 25 mm long and height 60 mm long. **14**
7. (a) Explain the various commands used for transformation of an object. **6**
- (b) What do you mean by drawing entity ? **4**
- (c) Name the commands used for the following : **4**
- (i) For dimensioning a drawn object.
- (ii) For constraining the lines drawn in horizontal and vertical directions only.
- (iii) For creating a sharp angle on corner of an object.
- (iv) For filling the drawn object with different pattern or colour.