B.Tech. AEROSPACE ENGINEERING (BTAE)

Term-End Examination

ロロ473   **December, 2018**

BAS-005 : ENGINEERING DRAWING

Time : 3 hours   *Maximum Marks : 70*

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

1. A square prism edge of base 30 mm and axis 50 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*

2. Figure 1 shows a machine part. Draw   *5+5+4*

    (a)   Elevation

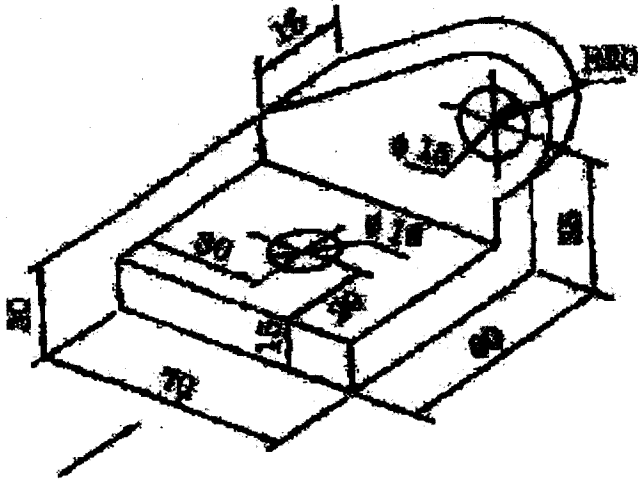   (b)   Top view

    (c)   Side view

Figure 1

3. Draw an isometric projection of the frustum of a hexagonal pyramid having base side 40 mm, top side 25 mm long and height 60 mm long.   *14*

4. Sketch double rivetted butt joint (chain type) front view in full section and its top view. Assume the dimensions suitably.   *14*

5. (a) Draw external thread profile of M52 V thread d = 52 mm; d_c = 46·587 mm; d_p = 48·75 mm; p = 5·0 mm.

(b) Draw the external thread profile for acme thread with

Major diameter $\qquad$ = $\qquad$ 65 mm;

Core diameter $\qquad$ = $\qquad$ 55 mm;

Pitch $\qquad$ = $\qquad$ 10 mm;

Depth of thread $\qquad$ = $\qquad$ $\dfrac{p}{2} + 0·25$

Angle of inclination of the thread profile is 15°. $\qquad$ *7+7*

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

(b) Name five edit commands used in CAD.

(c) Describe a method of drawing on a circular cylinder. $\qquad$ *6+4+4*

7. A line AB, 70 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. $\qquad$ *14*