B.TECH. (AEROSPACE ENGINEERING) (BTAE)

Term-End Examination

December, 2010

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.*

1.   Draw exterior and interior tangents to two circles   14
     of unequal radii.

2.   Draw a regular hexagon of side 30 mm. Draw a   14
     circle passing through all corners of hexagon.

3.   A cone of base diameter of 40 mm and height   14
     60 mm rests with its base on H.P. It is cut by a
     plane passing through middle of the axis, making
     an angle of 45° with HP and perpendicular to V.P.
     Develop the cone surface.

4.   An ellipse has the major axis and minor axis in   14
     the ratio of 3 : 2. Draw the ellipse when the major
     axis is 120 mm. Draw a tangent and a normal at
     any point P on it.

5.   Figure - 1 shows certain machine block. Draw   **14**
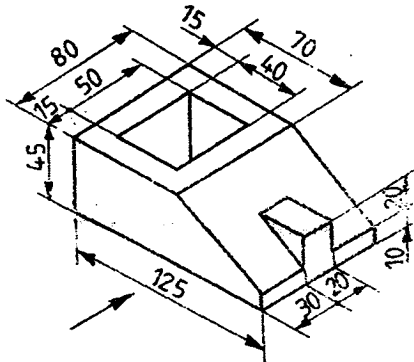   front and top views.

Figure -1

6.   A circular plate of 60 mm diameter, has a   **14**
     hexagonal hole of 20 mm side, centrally punched.
     Draw the projections of the plate, resting on H.P.
     On a point, with its surface inclined at 30° to HP.
     Any two parallel sides of the hexagonal hole are
     perpendicular to V.P. Draw the projections of the
     plate.

7.   Draw the development of a cylinder of 50 mm   **14**
     diameter and 75 mm height, containing a square
     hole of 25 mm side. The sides of the hole are
     equally inclined to the base and the axis of the
     hole bisects the axis of the cylinder.

8. Figure - 2 shows isometric views of certain objects. **14** Draw the free-hand sketches of the orthographic views.
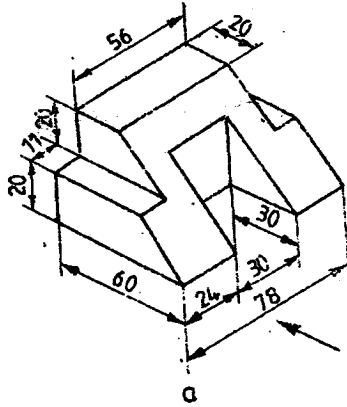

Figure - 2