Total Pages: 2

Reg No.:_____   Name:_____

APJ ABDUL KALAM TECHNOLOGICAL UNIVERSITY
FIRST/SECOND SEMESTER B.TECH DEGREE EXAMINATION, JULY 2017
Course Code: BE110
Course Name: ENGINEERING GRAPHICS

Max. Marks: 50   Duration: 3 Hours

PART A
Answer any two questions, each carries 10 marks.

1   The projections of a straight-line AB measures 80 mm in the top view and 70 mm in the front view. The midpoint of the line is 45 mm in front of VP and 35 mm above HP. (10) End A is 10 mm in front of VP and nearer to it. The other end B is nearer to HP. Draw the projections of the line. Find the true length and true inclinations.

2   A pentagonal pyramid 30 mm side of base and 60 mm altitude rests with one of its base edges on HP such that the face containing that edge is perpendicular to HP. The base (10) edge on which it rests is parallel to VP and nearer to it. Draw the top and front views of the pyramid.

3   A cone of base 50 mm diameter and axis 70 mm rests on VP with its axis inclined at 45° to VP and 30° to HP. Draw the projections of the solid with the apex away from (10) VP and nearer to HP.

PART B
Answer any three questions, each carries 10 marks.

4   A hemisphere of diameter 40 mm rests on its circular base, centrally on the top smaller end of a frustum of a hexagonal pyramid. The frustum of the pyramid has 25mm sides (10) at the top end, 40 mm sides at the base and is 70 mm high. Draw the isometric projection of the object.

5   Draw the Front view, Top view and Left Side View of the   object shown below in Figure 1. Use first angle projection method to draw the orthographic views of the object (10) with necessary dimensions in each view.
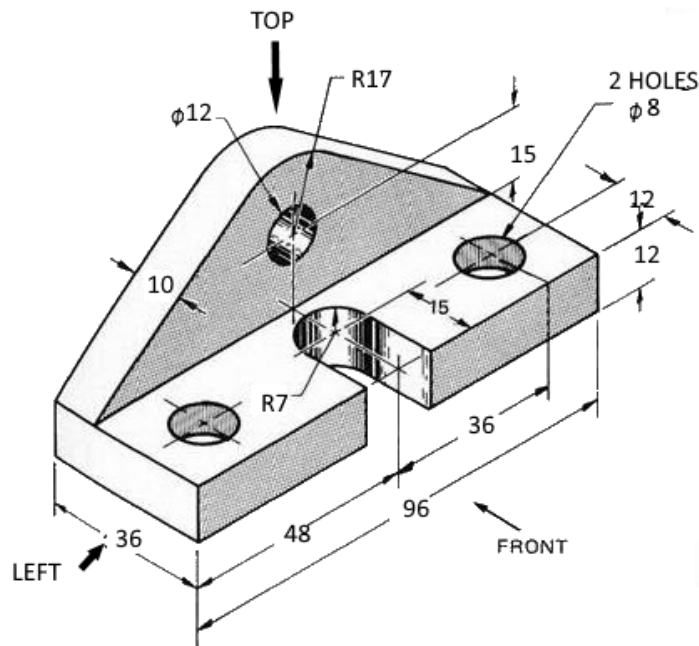
Figure 1

All Dimensions are in mm

6 A square prism of side of base 40mm and axis 90 mm long rests with its base on HP
   such that one of its rectangular faces is inclined at 30° to VP. A section plane   (10)
   perpendicular to VP and inclined to HP at 60° cuts the prism so as to pass through a
   point on the axis 20 mm below its top end. Draw the sectional front view and the true
   shape of the section.

7 A rectangular pyramid of sides of base 40 mm and 30 mm and height 50 mm rests with
   its base on the ground such that one of its longer edge is parallel to the picture plane   (10)
   and 40 mm behind it. The station point is 70 mm in front of the picture plane, 30 mm
   to the left of the axis of the pyramid and 50 mm above the ground. Draw the perspective
   view of the pyramid.

8 A square pyramid of 40 mm side of base and height 60 mm rests with its base on HP
   with one of its edges of the base parallel to VP. It is cut by a section plane perpendicular   (10)
   to VP and inclined at 45° to HP and bisecting the axis. Draw the development of the
   truncated pyramid.

****