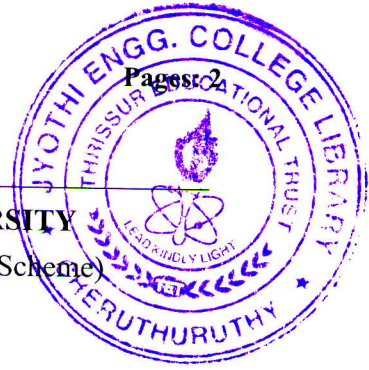Reg No.:_____
College Seal   Name:_____

APJ ABDUL KALAM TECHNOLOGICAL UNIVERSITY
B.Tech Degree S1,S2(S,FE) Examination May 2021 (2015 Scheme)

Course Code: BE 110
Course Name: ENGINEERING GRAPHICS

Max. Marks: 50   Duration: 3 Hours

PART A
Answer any two full questions. Each question carries 10 Marks   Marks

1 The end A of a line 20 mm above HP 10 mm in front of VP .The line is inclined 30^0 to HP and 45^0 with VP. Top view is 60 mm long. Draw its projections and find its true length. (10)

2 A straight line AB measuring 120 mm long has its vertical trace 40 mm above xy line and the horizontal trace 50 mm below xy line. The projectors through the HT and VT are 110 mm apart. If the point A is 10 mm above HP, draw the projections of the line AB and find its true inclinations. (10)

3 A square pyramid side of base 30 mm and height 50 mm stands with a triangular face perpendicular to HP and parallel to VP. Draw the projections. (10)

PART B
Answer any 3 full questions. Each question carries 10 Marks

4 A hemisphere of radius 25 mm rests centrally on a cube of 60 mm side so that the circular face of the hemisphere facing upwards. Draw the isometric projection of combination of solids. (10)

5 A pentagonal pyramid of base 30mm and height 60mm rests on HP with one of its base edges perpendicular to VP. It is cut by a plane inclined 60^0 to the base. The cutting plane meets the axis at 15mm above the base. Draw the front view, sectional top view and true shape of the section. (10)

6 A sugar jar in the form of a right circular cone of base diameter 60 mm, and height 90 mm and it rests on HP. An ant moves from extreme left end of its base and returns to its starting point after moving around it. Find geometrically the length of the shortest path the ant can take. Show the path in front and top view. (10)

7   A vertical cylinder 70 mm diameter and 100 mm length is penetrated by another   (10)
     horizontal cylinder 55 mm diameter and 100 mm long. The axis of the
     horizontal cylinder is parallel to VP and intersects the axis of the vertical
     cylinder at 90^0. Draw the projections showing the curves of intersection.

8   A cube of side 40 mm is resting on the ground such that the vertical faces are   (10)
     equally inclined to the picture plane and one vertical edge of cube is in the
     picture plane. The central plane is located 50 mm to left of the axis of the cube.
     The station point is 60 mm in front of picture plane and 70 mm above the
     ground plane. Draw the perspective view of the solid.

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