Reg No.:_____ Name:_____

APJ ABDUL KALAM TECHNOLOGICAL UNIVERSITY

FIRST SEMESTER B.TECH DEGREE EXAMINATION(S), DECEMBER 2019

Course Code: BE110

Course Name: ENGINEERING GRAPHICS

Max. Marks: 50 Duration: 3 Hours

PART A

Answer any two questions, each carries10 marks. Marks

1 The front view of a line AB measures 60mm and makes an angle of 40^0 with xy-line. The end A is in HP and VT of the line is 15mm below HP. The line is inclined at 30^0 to VP. Draw the projections and find the true length and locate HT. (10)

2 Draw the projections of a straight line AB 100 mm long inclined at 45^0 to HP and 30^0 to the VP. The end A is in HP and B is in VP. (10)

3 A square pyramid of base edge 30mm and the height 60 mm is resting on HP on its triangular face such that the square face edge on HP is inclined 30^o to VP. Draw its projections (10)

PART B

Answer any three questions, each carries10 marks.

4 A sphere with 60mm diameter is surmounted centrally on the top of a square block with 70mm side and 20mm height. Draw the isometric view of the combination of solids. (10)

5 A cone of base diameter 50 mm and axis 60 mm long is resting on its base on the HP. It is cut by a plane bisecting the axis inclined at 45° to the H.P. Draw its sectional top view and true shape of the section. (10)

6 A square pyramid of base side 40 mm is resting on its base on HP, with two of its base sides are parallel to VP. A section plane which is parallel to resting base and perpendicular to VP cuts the pyramid at a distance of 50 mm from its base. Edge of the square face formed after removing the top portion of the pyramid is 20 mm. Draw the development of the lateral surface of the bottom portion of sectioned solid. (10)

7 A square prism base 45 mm side and 100 mm long is resting on its square base on HP with the two adjacent vertical faces equally inclined to VP. It is penetrated by a triangular prism 45 mm side and 90 mm long in such a way that these axes intersect each other at right angles at their mid points. If the two rectangular faces of the triangular prism are equally inclined to horizontal plane draw the projection of solids showing the lines of intersection. (10)

8 A square pyramid 45mm base edge and axis 60mm high, rest on the base with one edge of the base parallel to and 25mm behind the picture plane. The central plane is 50mm to the left of the apex. The station point is 45mm in front of the picture plane and 30mm above the ground plane. Draw the perspective view of the pyramid. (10)

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