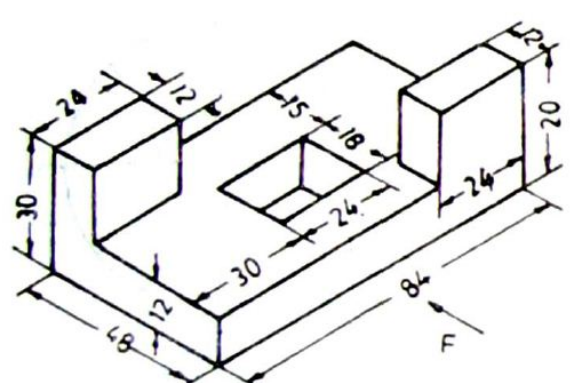


<b>APJ ABDUL KALAM TECHNOLOGICAL UNIVERSITY</b>		
<b>Scheme for Valuation/Answer Key</b>		
<i>Scheme of evaluation (marks in brackets) and answers of problems/key</i>		
<b>FIRST/SECOND SEMESTER B.TECH DEGREE EXAMINATION, MAY 2019</b>		
<b>Course Code: BE110</b>		
<b>Course Name: ENGINEERING GRAPHICS</b>		
Max. Marks: 50		Duration: 3 Hours
<b>PART A</b>		
<i>Answer any two questions, each carries 10 marks.</i>		Marks
1	<p>A line AB 70mm long is inclined at <math>30^\circ</math> to HP and <math>40^\circ</math> to VP. The end A is in HP and 40mm in front of VP. Draw its projections and locate the traces.  <b>Fixing a and a' – 2 marks, top view – 3 marks, front view – 3 marks, traces – 1 mark, Dimensioning – 1 mark</b></p>	(10)
2	<p>Front view of a line AB makes <math>50^\circ</math> with XY line and measures 60 mm and its top view makes <math>30^\circ</math> with XY line. End A is 15 mm above HP and its VT is 10 mm below HP. Draw projections of the line AB, determine inclinations with HP and VP, true length and locate its traces.  <b>Fixing a' and VT – 2 marks, Fixing v and a – 2 marks, plan – 1 mark, true length – 2 marks, true inclinations – 1 mark, traces – 1 mark, Dimensioning – 1 mark</b></p>	(10)
3	<p>A triangular prism of base side 30mm and length 50mm has a base edge on HP, axis inclined at <math>35^\circ</math> to HP. The base edge on which it rests is inclined <math>45^\circ</math> to VP. Draw the projections of solid  <b>Simple position – 2 marks, First position – 3 marks, Final position – 4 marks Dimensioning – 1 mark</b></p>	(10)
<b>PART B</b>		
<i>Answer any three questions, each carries 10 marks.</i>		
4	<p>Draw an isometric view of a frustum of a cone 25mm top diameter and 40mm bottom diameter and 50mm high placed centrally above a cylindrical block of 50mm diameter and 25mm thick such that the solids have a common axis.  <b>Isometric of cylindrical block – 4 marks Isometric of frustum cone – 5 marks Dimensioning – 1 mark</b>  <b>NB: Orthographic view is not necessary</b></p>	(10)
5	<p>Draw front view, top view and any one side view of the following figure, F is the front view direction.</p> <div style="text-align: center;">  </div>	(10)



	<b>Front view– 3 marks, Top view– 3 marks and Any one side view– 3marks Dimensioning – 1 mark</b>	
6	<p>A square prism of 40 mm side length and 60 mm height rests on its base upon HP, such that the vertical faces are equally inclined to VP. A horizontal hole 40 mm diameter is drilled through the geometrical centre of the prism with the axis perpendicular to VP. Develop the lateral surface of the prism.</p> <p><b>Orthographic views– 2 marks, Development of Prism – 3 marks, Hole on Development – 4 marks, Dimensioning – 1 mark</b></p>	(10 )
7	<p>A vertical cylinder of height 70mm and base circle diameter 60mm is resting on the ground on its base and a horizontal cylinder of base 40mm diameter and axis length 80mm penetrates the vertical cylinder by bisecting the axes at right angles to each other. Draw the projection of the solids showing the curve of intersection.</p> <p><b>Front view– 2marks ,top view– 2marks,side view – 2 marks, curve of Intersection - 3marks,Dimensioning– 1 mark,</b></p>	(10 )
8	<p>A pentagonal pyramid axis length 50mm and base edge 25mm is resting on GP on its base. One of the base edges which is nearer to PP is parallel to it and 15mm behind it. The SP is 65mm above GP and 40mm in front of PP. Draw the perspective view of the pyramid if the axis is lying on the central plane and the pyramid is completely behind the PP.</p> <p><b>Orthographic views– 2 marks, locating station point – 2 marks, Perspective view – 5 marks, Dimensioning – 1 mark</b></p>	(10 )

