
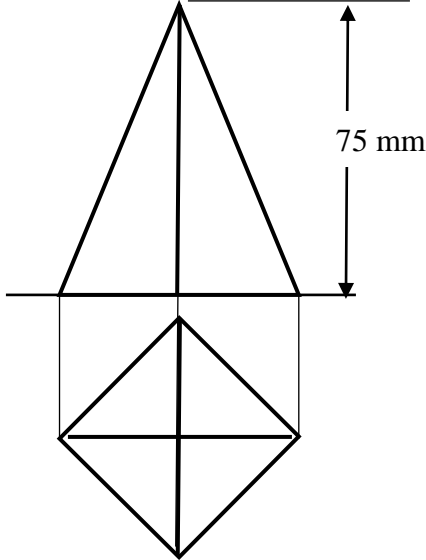


Name:			
Enrolment No:			
UPES End Semester Examination, May 2023			
Course: Engineering Graphics Program: B. Tech (food tech and bio tech) Course Code: MECH 1005		Semester: IV Time : 03 hrs. Max. Marks: 100	
Instructions:			
SECTION A (5Qx4M=20Marks)			
S. No.		Marks	CO
Q 1	Point A is 20 mm above HP, 30 mm in front of VP and 25 mm in front of PP. Find out the shortest distance from the intersection of HP and VP.	4	CO1
Q 2	Describe the use of any five types of lines used in engineering drawing.	4	CO1
Q 3	Describe unidirectional and aligned system of dimensioning.	4	CO1
Q 4	Classify different types of solids.	4	CO1
Q 5	Explain the difference between first angle and third angle projection.	4	CO1
SECTION B (4Qx10M= 40 Marks)			
Q 6	Point P is 35 mm below HP and 25 mm behind VP, another point Q is 40 mm above HP and 20 mm behind VP. Draw the projections of the points if the line joining their front view makes 45° with XY.	10	CO2
Q 7	End P of a Line PQ is 20 mm above HP and 15 mm in front of VP. End Q is 50 mm above HP and the distance between their projectors is 45 mm. The line makes 40° angle from the VP. Draw the projections of the line and find TL, FVL, TVL, α , β , θ and ϕ .	10	CO2
Q 8	A hexagonal prism has one of its rectangular faces parallel to the H. P. Its axis is perpendicular to the V.P. and 3.5 cm above the ground. Draw its projections when the nearer end is 2 cm in front of the V.P. Side of base 2.5 cm long; axis 5 cm long.	10	CO3
Q 9	A cube of 35 mm long edges is resting on the H.P. on one of its faces with a vertical face inclined at 30° to the V.P. It is cut by a section plane parallel to the V.P. and 9 mm away from the axis and further away from the V.P. Draw its sectional front view and the top view..	10	CO3
SECTION-C (2Qx20M=40 Marks)			

<p>Q 10</p>	<p>Draw the development and isometric view of the pentagonal pyramid with base side 30 mm and height 55 mm, resting on the HP with one of its base side perpendicular to the VP</p> <p style="text-align: center;">OR</p> <p>Draw the development and isometric view of a square pyramid having its base 40 mm side and height 75 mm, standing in a position shown in Figure.</p> <div style="text-align: center;">  </div>	<p>20</p>	<p>CO3</p>
<p>Q 11</p>	<p>. A rhombus of diagonals 40 mm and 70 mm long respectively has one end of it's longer diagonal in HP while that diagonal is 45° inclined to HP. Draw it's projections.</p>	<p>20</p>	<p>CO2</p>