
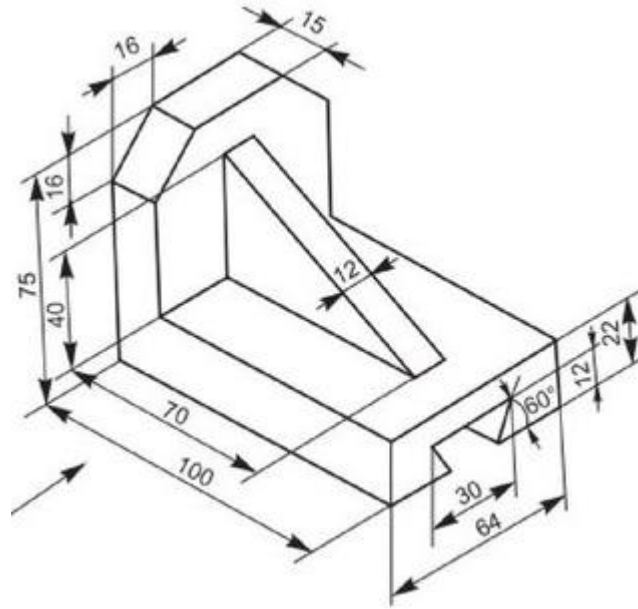


Name:			
Enrolment No:			
<b>UPES</b> <b>End Semester Examination, May 2024</b>			
<b>Course: Engineering Graphics</b> <b>Program: B.Tech (Food Tech, Biomedical, Biotechnology)</b> <b>Course Code: MECH-1001</b>		<b>Semester: 2nd</b> <b>Time: 03 hrs.</b> <b>Max. Marks: 100</b>	
<b>Instructions: Section A&amp;B attempts all questions.</b> <b>Section C attempts all questions, in Q11 answer anyone.</b> <b>Make a suitable assumption whenever necessary.</b>			
<b>SECTION A</b> <b>(5Qx4M=20Marks)</b>			
S. No.		Marks	CO
Q 1	<b>True/False.</b> a) Two types of dimensions needed in a drawing are: i) size or functional dimensions and ii) location or datum dimensions. b) In unidirectional system, the figures are written along the dimension line.	<b>04</b>	<b>CO1</b>
Q 2	Differentiate between the first angle projection method and the third angle projection method.	<b>04</b>	<b>CO1</b>
Q 3	A point A is 35 mm above H.P. and 50 mm behind V.P. Draw its projections.	<b>04</b>	<b>CO1</b>
Q 4	A regular pentagon of 25mm side has one side on the ground. Its plane is inclined at 45 degrees to the HP and perpendicular to the VP. Draw its projections and show its traces.	<b>04</b>	<b>CO1</b>
Q 5	Line AB 50mm long is placed in a first quadrant. It is 30° inclined to HP and parallel to VP. One of the end of line is 20mm above HP and 30mm in front of VP. Draw its Projections.	<b>04</b>	<b>CO1</b>
<b>SECTION B</b> <b>(4Qx10M= 40 Marks)</b>			
Q 6	The pictorial view of an object is shown in the figure below. Sketch, looking from arrow, front view and top view using first-angle projection method	<b>10</b>	<b>CO1</b>



Q 7	Draw the projections of a regular hexagon of 30 mm side resting on the HP on one of its corners, having its surface perpendicular to the VP and inclined at $45^\circ$ to the H.P	10	CO1
Q 8	Engineering drawing is the language of engineers. Explain briefly. Why?	10	CO2
Q 9	A straight line AB has its end A 10 mm above the HP and end B 50 mm in front of the VP. Draw the projections of line AB if it is inclined at $30^\circ$ to the HP and $45^\circ$ to the VP, and it is 50 mm long.	10	CO4
<b>SECTION-C</b> <b>(2Qx20M=40 Marks)</b>			
Q 10	A cone of base 40mm and axis height 65mm, is resting on its base on the H.P. It is cut by a section plane perpendicular to the V.P. inclined at 30 degrees to the H.P. and cutting the axis at a point 30mm from the apex. Draw the sectional top view and true shape of the section.	20	CO2
Q 11	A cone, 50mm base diameter and 70mm axis is standing on it's base end of end generator. Draw projections, sectional views, true shape of section.  or  A hexagonal pyramid, base 30 mm side and axis 65 mm long, is resting on its base on the HP. with two edges parallel to the VP. It is cut by a section plane, perpendicular to the VP, inclined at $45^\circ$ to the HP. and intersecting the axis at a point 25 mm above the base. Draw the front view, sectional top view and true shape of the section.	20	CO4