


Name:			
Enrolment No:			
<b>UNIVERSITY OF PETROLEUM AND ENERGY STUDIES</b> <b>End Semester Examination, December 2022</b>			
<b>Course: Engineering Graphics</b> <b>Program: B. Tech APE (UP), Chemical, FSE</b> <b>Course Code: MECH1005</b>		<b>Semester : I</b> <b>Time : 03 hrs.</b> <b>Max. Marks : 100</b>	
<b>Instructions:</b>			
<b>SECTION A</b> <b>(5Qx4M=20Marks)</b>			
S. No.		Marks	CO
Q 1	Explain clearly the difference between the first-angle projection method and the third-angle projection method.	4	CO1
Q 2	Define the perspective projection. Explain the significance of it.	4	CO1
Q 3	Define orthographic projection. Describe briefly the method of obtaining an orthographic projection of an object.	4	CO1
Q 4	A point A is situated in the first quadrant. Its shortest distance from the intersection point of H.P., V.P. and auxiliary plane is 60 mm and it is equidistant from the principal planes. Draw the projections of the point and determine its distance from the principal planes.	4	CO2
Q 5	Explain the following in CAD 1. Translation      2. Rotate      3. Shear      4. Scaling	4	CO1
<b>SECTION B</b> <b>(4Qx10M= 40 Marks)</b>			
Q6	The two points A and B are in the H.P. The point A is 30 mm in front of the V.P., while B is behind the V.P. The distance between their projectors is 75 mm and the line joining their top views makes an angle of 45° with XY. Find the distance of the point B from the V.P.	10	CO2
Q7	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° to the H.P.	10	CO2
Q8	Draw the projections of a pentagonal pyramid, base side 30 mm and axis 50 mm long, having its base on the HP and an edge of the base parallel to the VP.	10	CO3
Q9	Line AB 75 mm long makes 45° inclination with VP while it's FV makes 55°. End A is 10 mm above HP and 15 mm in front of VP. If the line is in 1st quadrant draw it's projections and find it's inclination with HP.	10	CO2
(OR)			

