Name: **Enrolment No:**	

UPES

End Semester Examination, May 2024

Course: Engineering Graphics **Semester: II**

Program: B. Tech APE, EE, ECE, Chemical

Time : 03 hrs.

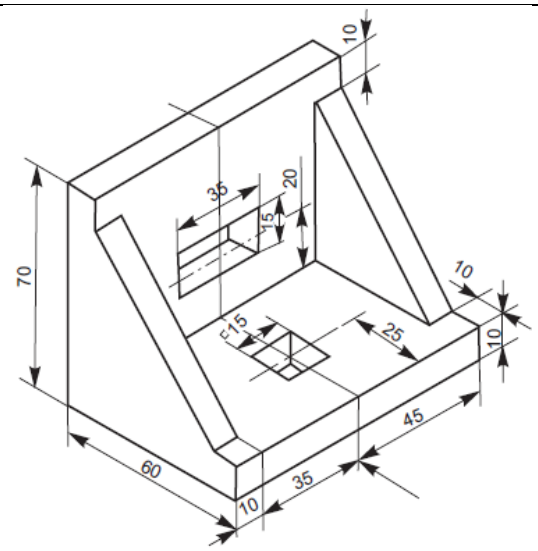
Course Code: MECH 1001 **Max. Marks: 100**

Instructions: Assume any suitable value for the missing data

SECTION A

(5Qx4M=20Marks)

S. No.		Marks	CO
Q 1	**True/False**. a) Orthographic projection is the representation of two or more views on the mutual perpendicular projection planes. b) The position of the views with respect to the reference line will not change according to the quadrant in which the object may be situated.	**4**	**CO1**
Q2	**True/False**. a) In chain dimension, the dimensions are arranged parallel to each other. b) In the combined dimension, the dimensions are arranged in a straight line only.	**4**	**CO1**
Q3	**True/False**. **a)** Dimension lines should not intersect each other as far as possible. **b)** Dimensions can be placed anywhere irrespective of the features visible.	**4**	**CO1**
Q4	Draw front view and top view of a point A lying 20 mm above H.P. and 30 mm in front of V.P.	**4**	**CO2**
Q5	Why second and fourth angle projection systems are not used in practice?	**4**	**CO2**
	SECTION B **(4Qx10M= 40 Marks)**		
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.	**10**	**CO2**

			
Q7	A line 70mm long is incline at an angle of 30 degree to HP. It's end A is 10mm above the HP and 15mm in front of VP. The front view of line is 50mm. Draw the projection of line AB.	**10**	**CO2**
Q8	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.	**10**	**CO3**
Q9	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. Also draw its side view.	**10**	**CO3**
SECTION-C (2Qx20M=40 Marks)			
Q10	A hexagonal Prism, base side 30 mm and axis 50 mm long, has its base on the H.P. and an edge of the base is perpendicular to the H.P. Draw its isometric view and develop its surface.	**20**	**CO3**
Q11	A pentagonal prism, 30 mm base side & 50 mm axis is standing on HP on it's base whose one side is perpendicular to VP. It is cut by a section plane 45^{o} inclined to HP, through mid-point of axis. Draw FV, Sectional TV & Sectional SV. Also draw true shape of section. **OR** 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**	**CO3**