Name:

**Enrolment No:** 



Semester

: I

## **UPES**

## **End Semester Examination, December 2023**

**Course: Engineering Graphics** 

Program: B.Tech ASE, Mech, ADE, Civil, FSE

Course Code: MECH1001

Time : 03 hrs.

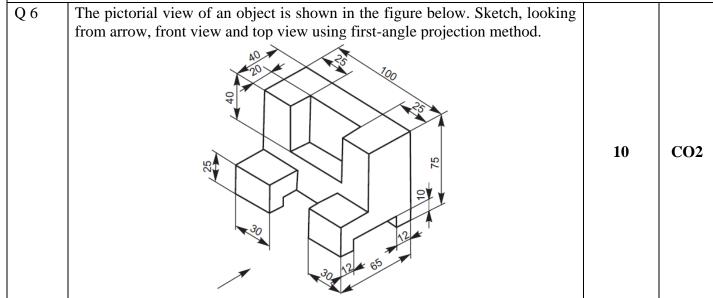
Max. Marks: 100

Instructions: Assume the suitable data if required

## SECTION A (50x4M=20Marks)

(EQN-TIVE ZOTVICE INS)				
S. No.		Marks	CO	
Q 1	Show by sketches the difference between (i) chain dimensioning and (ii) parallel dimensioning. What are the advantages of one above the other?	4	CO1	
Q 2	Explain the following in CAD  1. Translation 2. Rotate 3. Shear 4. Scaling	4	CO1	
Q 3	Draw all three views of a point P lying 50 mm below HP and 35 mm in front of VP and 30 mm form the RPP.	4	CO2	
Q 4	Why second and fourth angle projection systems are not used in practice?	4	CO1	
Q 5	Line AB 40 mm long is placed in the first quadrant. It is 15 mm above HP and 20 mm in front of VP. Draw its projections if it is perpendicular to VP and parallel HP	4	CO2	

## SECTION B (4Qx10M= 40 Marks)



Q 7	A Rectangle of 30 mm and 50 mm sides is resting on HP on one of its minor side, its surface is perpendicular to VP and makes 45° inclination with HP.	10	CO2
Q 8	Draw its projections.  A hexagonal prism has one of its rectangular faces parallel to the HP. Its axis	10	
	is perpendicular to the VP. Draw its projections. Side of base 2.5 cm long; axis 5 cm long.		CO3
Q9	FV of line RS is 50° inclined to xy and measures 55 mm while it's TV is 60° inclined to xy line. If end R is 10 mm above HP and 15 mm in front of VP, draw it's projections and find its TL and inclination with HP & VP.  (OR)  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
	SECTION-C (2Qx20M=40 Marks)		
Q 10	A hexagonal pyramid, base side 30 mm and axis 50 mm long, has its base on the V.P. and an edge of the base is perpendicular to the H.P. Draw its isometric view and develop its surface.	20	СОЗ
Q 11	A cone, 50 mm base diameter and 70 mm axis is standing on it's base on HP. It cut by a section plane 45° inclined to HP through base end of end generator. Draw projections, sectional views and true shape of section.  (OR)  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° inclined to HP, through mid-point of axis. Draw FV, Sectional TV & Sectional SV. Also draw true shape of section.	20	CO3