राष्ट्रीयप्रौद्योगिकीसंस्थानदिल्ली
NATIONAL INSTITUTE OF TECHNOLOGY DELHI
Name of the Examination: End Semester Examination
(Autumn Semester-2023)
Name of the Examination: B. Tech.

Branch	CSE/EE	**Semester**	1st
Title of the Course	Engineering Visualization	**Course Code**	MEBB 162
Time: 3 Hours		**Maximum Marks**	**50**

Note: All the questions are compulsory and need to be answered. Assume suitable data if required.

QN	Questions	Marks	CO	BL	PO
1.	a. Describe the elevation, plan and end view for any object and also differentiate between orthographic and isometric projections methods.	04	CO1	L2	01
	b. On a survey map the distance between two places 1 km apart is 5 cm. Construct the scale to read 4.6 km.	04	CO2		
2.	a. Draw an involute of a square having side as 20 mm.	04	CO2	L3	02
	b. Projectors drawn from HT and VT of a line AB are 80 mm apart and those drawn from it's ends are 50 mm apart. End A is 10 mm above Hp, VT is 35 mm below HP while it's HT is 45 mm in front of VP. Draw projections, locate traces and find TL of line & inclinations with HP and VP.	06	CO3		

3.	a. Illustrate the following cases for line and plane
	    i. Line inclined to HP & parallel to VP
	    ii. Surface inclined to HP
		04	CO3	L3	02

	b. A cylinder 40 mm diameter and 50 mm axis is resting on one of a base circle on VP while it's axis makes 45° with VP and FV of axis 35° with HP. Draw its projections with drawing steps.	07			

Roll No:...............

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4.	a. Describe the important terms used in projection of solids.	04			02
	b. A cone, base 80 mm diameter and axis 85 mm long is resting on its base on the HP. It is cut by a section plane perpendicular to the VP and parallel to and 12 mm away from one of its generators. Draw the front view, sectional top view and true shape of the section. Draw the front view, sectional top view and sectional side view with drawing steps.	07	CO4	L4	
5.	Draw the isometric view from the given orthographic view. All dimensions are in mm.	10	CO5	L4	03

*********************************The End & Good Luck***