U.S.N.										

B.M.S. College of Engineering, Bengaluru-560019

Autonomous Institute Affiliated to VTU

February / March 2025 Semester End Main Examinations

Programme: B.E. **Semester: I / II**
Branch: Common to all Branches **Duration: 3 hrs.**
Course Code: 22ME1ESCED/22ME2ESCED/21ME1ESEVI/20ME1ESCED **Max Marks: 100**
Course: Computer Aided Engineering Drawing

Instructions: 1. Answer any FIVE full questions, choosing one full question from each unit.
2. Missing data, if any, may be suitably assumed.

Important Note: Completing your answers, compulsorily draw diagonal cross lines on the remaining blank pages. Revealing of identification, appeal to evaluator will be treated as malpractice.

		UNIT 1 (Sketching)	CO	PO	Marks
1	a)	A point lying in the first quadrant is equidistant from all the three planes of projections. Front view of the point is 50 mm from the XY line. Draw the projections of the point.	CO1 CO4	PO1 PO2	**05**
	b)	The front view of a line is 50 mm long and is inclined at 50° to the XY line. The line is inclined at 30° to VP. Draw the projections of the line and find its true length and true inclination with HP. One end of the line is nearer to HP and the other end is nearer to VP.	CO1 CO4	PO1 PO2	**15**
		OR			
2		A hexagonal lamina of sides 30 mm rests on HP with one of its corners touching VP. The surface of the lamina makes an angle of 45° to VP, and one of its edges is inclined to HP at 30°. Draw its projections.	CO1 CO4	PO1 PO2	**20**
		UNIT II (Computer Drafting)			
3		A pentagonal pyramid 25 mm sides and 50 mm axis length rests with one of its corners on HP such that the two base edges containing the corner on which its rests make equal inclinations to HP. Draw the projections of the pyramid when its axis makes an inclination of 40° to HP and 30° to VP.	CO1 CO3 CO4	PO1 PO2 PO5 PO12	**30**
		OR			
4		A tetrahedron of sides 40 mm is resting on one of its sides on HP. This side is parallel to VP & 20 mm away from it. It is tilted about the resting side such that the base containing this edge is inclined at 30° to HP. Draw the projections of the solid.	CO1 CO3 CO4	PO1 PO2 PO5 PO12	**30**

			UNIT III (Computer Aided Drafting / Solid Modeling)			
	5		A hexagonal prism 30 side of base and 80 mm axis length rests on HP on its base with two rectangular faces perpendicular to VP. A cone of base diameter 40 mm and height 40 mm is placed on top of this prism. i) Create solid model of the combination, ii) Generate the principal views and isometric projection.	*CO1* *CO2*	*PO1* *PO2*	**30**
			OR			
	6		A square prism of base side 40 mm and height 50 mm is placed centrally on a cylindrical slab of diameter 100 mm and thickness 30mm. Draw the top and front views. Draft the isometric projection of the combination.	*CO1* *CO2*	*PO1* *PO2*	**30**
			UNIT IV (Sketching)			
	7		A hexagonal pyramid of sides 35 mm and altitude 65 mm is resting on HP on its base with two of the base edges perpendicular to VP. The pyramid is cut by a plane inclined at 30° to HP and perpendicular to VP and is intersecting the axis at 30 mm above the base. Draw the development of the remaining portion of the pyramid.	*CO2*	*PO1* *PO2*	**20**
			OR			
	8		A rectangular prism, base of sides 30 mm x 20 mm and height 60 mm rests on HP on its base with the longer base side inclined at 40° to VP. It is cut by a plane inclined at 45° to HP, perpendicular to VP and bisects the axis. Draw the development of the lateral surface of the prism.	*CO2*	*PO1* *PO2*	**20**

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