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 FOUR full questions, choosing one full question from each unit.
2. Missing data, if any, may be suitably assumed.

			UNIT – I (Sketching)	CO	PO	Marks
1	a)		A point G is 25 mm below HP and is in III quadrant. Its shortest distance from the line of intersection of HP and VP is 45 mm. Draw the top, front and right side views.	CO1	PO1	**05**
	b)		A line AB has its end A 20 mm above HP and 30 mm infront of VP. The other end B is 60 mm above HP and 45 mm infront of VP. The distance between end projectors is 70 mm. Draw its projections. Determine the true length and apparent inclinations.	CO1	PO1	**15**
			OR			
2			The front view of a rectangular lamina of side 30 X 20 mm is a square of 20 mm sides, with the shorter sides of the rectangle being parallel to both HP & VP. Draw the projections. Determine the inclination of the surface of lamina with HP & VP.	CO2	PO1	**20**
			UNIT – II (Computer Drafting)			
3			A pentagonal pyramid 25 mm sides of base and 50 mm axis length rests on HP on one of its corners of the base such that the two base edges containing the corner on which rests make equal inclinations with HP. Draw the projections of the pyramid when the axis of the pyramid is inclined to HP at 40° and to VP at 30°.	CO3	PO5	**30**
			OR			
4			A hexahedron of 30 mm sides is resting on one of its corners on HP such that one of its solid diagonals is perpendicular to VP. Draw the projections of the solid.	CO3	PO5	**30**
			UNIT – III (Computer Drafting / Modeling)			
5			A sphere of diameter 30 mm rests on the frustum of a hexagonal pyramid base 30 mm, top face 18 mm side and height 50 mm, such that their axes coincide. Draw the top and front views. Draft the isometric projection of the combined solids.	CO3	PO5	**30**

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.

		OR				
	6		A hemisphere diameter 70 mm is placed on the ground on its curved surface. A cone base diameter 70 mm and height 70 mm is placed centrally on it. Create the solid model (3D) of the combination and generate top view, front view and isometric projection.	*CO3*	*PO5*	**30**
		UNIT – IV (Sketching)				
	7		Draw the development of the truncated portion of the lateral faces of a pentagonal prism of 20 mm sides of base and 50 mm height standing vertically with one of its rectangular faces parallel to VP and nearer to it so as to produce a one-piece development. The inclined face of the truncated prism is 30° to its axis and passes through the right extreme corner of the top face of the prism.	*CO2*	*PO1*	**20**
		OR				
	8		Draw the development of the lateral surface of a truncated vertical cylinder of 40 mm diameter of base and height 50 mm. The truncated flat surface of the cylinder bisects the axis at 60° to it.	*CO2*	*PO1*	**20**

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