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**
Branch: Common to all Branches **Duration: 3hrs**
Course Code: 22ME1ESCED **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.

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 – I (Sketching)	*CO*	*PO*	Marks
1	a)		A point A is 20 mm above HP and 30 mm in front of VP. Draw its projections. Identify the quadrant in which the point lies.	*CO1*	*PO1*	**05**
	b)		A line AB 80 mm has its end A, 20 mm above HP and 30 mm in front of VP. It is inclined at 30° to HP and 45 to VP. Draw the projections of the line and find apparent lengths and apparent inclinations.	*CO1*	*PO1*	**15**
			OR			
2			A pentagonal lamina of edges 25mm is resting on HP with one of its sides such that the surface makes an angle of 60° with HP. The edge on which it rests is inclined at 45° to VP. Draw its projections.	*CO2*	*PO1* *PO2*	**20**
			UNIT – II (Solid edge)			
3			A pentagonal pyramid 25 mm sides of base and 50 mm axis length rests on HP on one of its slant triangular faces. Draw the projections of the pyramid when the axis appears to be inclined to VP at 45°.	*CO1* *CO2* *CO3*	*PO1* *PO5*	**30**
			OR			
4			A hexagonal prism 25 mm sides of base and 50 mm axis length rests on HP on one of its corners of the base such that two base edges containing the corner on which it rests make equal inclinations with HP. Draw the projections of the prism when the axis of the prism is inclined to HP at 40° and to VP at 30°. Find apparent inclination of axis with VP.	*CO1* *CO2* *CO3*	*PO1* *PO5*	**30**
			UNIT – III (Solid edge)			
5			A cone of base diameter 40 mm and height 50 mm is placed centrally on the top face of a square block of sides 60 mm and height 15 mm. Draw the top view, front view and isometric projection of the combination of solids.	*CO2* *CO3*	*PO1* *PO5*	**30**

			OR			
	6		A hemisphere of diameter 50 mm is resting on its curved surface centrally on the top of frustum of a rectangular pyramid of base 80 mm × 60 mm and top 60 mm ×40 mm with a height of 55 mm. The two shorter sides of base of the rectangular pyramid are perpendicular to the VP. Generate the isometric view of the combination of solids using solid modeling. Also generate front and top views.	*CO2* *CO3*	*PO1* *PO5*	**30**
			UNIT – IV (Sketching)			
	7		A regular pentagonal prism of height 60 mm and base edge 30 mm rests with its base on HP. The vertical face of the prism closest to VP is inclined at 30° to it. Draw the development of the truncated prism with its truncated surface inclined at 60° to its axis and bisecting it.	*CO2* *CO3*	*PO1* *PO5*	**20**
			OR			
	8		A hexagonal pyramid of sides 35 mm and altitude 65 mm is resting on HP on its base with two of the base sides perpendicular to VP. The pyramid is cut by 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* *CO3*	*PO1* *PO5*	**20**

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