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: 3 hrs**
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 S is in the first quadrant and equidistant of 50 mm from all the three principal planes. Draw the projections of the point.	*CO1*	*PO1*	**5**
	b)	Top view *pq* of a straight line is 70 mm and makes an angle of 60° with XY line. The end Q is 10 mm in front of VP and 30 mm above the HP. The difference between the distances of P and Q above HP is 45 mm. Draw the projections and determine the true length and true inclinations with HP and VP.	*CO1*	*PO1*	**15**
		OR			
2		A pentagonal lamina of edges 25 mm 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.	*CO1*	*PO1*	**20**
		UNIT – II (Computer Drafting)			
3		A pentagonal prism 25 mm sides of base and 60 mm axis length rests on HP on one of its edges of the base which is inclined to VP at 30°. Draw the projections of the prism when the axis is inclined to HP at 40°.	*CO2*	*PO1*	**30**
		OR			
4		A cone of base diameter 40 mm and axis length 50 mm is resting on HP on a point on the circumference of its base such that its apex is 40 mm above HP and top view of the axis is inclined at 60° to VP. Draw the top and front views of the solid. What is the inclination of axis with HP and VP?	*CO2*	*PO1*	**30**
		UNIT – III (Computer Drafting / Modeling)			
5		Draw top view, front view and isometric projection of, a hexagonal prism of side of base 40 mm and height 60 mm with a right circular cone of base 40 mm as diameter and altitude 50 mm, resting on its top such that the axes of both the solids are collinear.	*CO3*	*PO2*	**30**

			OR			
	6		Create a 3D model of a regular pentagonal prism of base edge 30 mm and axis 60 mm mounted centrally over a cylindrical block of 80 mm and 25 mm thick. Generate the top view, front view and isometric projection.	*CO3*	*PO2*	**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 closest to VP is at 30° to it. Draw the development of the truncated prism with its truncated surface inclined at 60° to its axis and bisecting it.	*CO4*	*PO1*	**20**
			OR			
	8		Draw the development of the lateral surface of a funnel consisting of a cylinder and frustum of a cone. The diameter of the cylinder is 20 mm and top face diameter of the funnel is 80 mm. The height of frustum and cylinder are equal to 60 mm and 40 mm repectively.	*CO4*	*PO1*	**20**

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