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 30 mm above XY line is the front view of two points A and B. A is 40 mm behind VP and B is 45 mm in front of VP. Draw the projections of the points and state the quadrants in which the points are situated.	*CO1*	*PO1*	**5**
	b)		The front view of a 70 mm long line measures 45 mm and is inclined at 45° to the XY line. The end A is 15 mm above HP and is in VP. Draw the projections and find the distance between the end projectors.	*CO1*	*PO1*	**15**
			OR			
2			ABC is a 30° – 60° set square, with the longest side AB of length 60 mm so kept that AB is in the VP and makes an angle of 30° with HP. Angle ABC is 60°. The set square itself is inclined at 45° to VP. Draw the projections of the set square.	*CO1*	*PO1*	**20**
			UNIT – II (Computer Drafting)			
3			A pentagonal prism of 30 mm side of base and height 60 mm is placed on HP, such that the longer edge passing through the corner on which it rests makes an angle of 45° with the HP. Draw the projections of the solid when the axis of the prism makes an angle of 30° to VP.	*CO1* *CO3*	*PO1* *PO5*	**30**
			OR			
4			Draw the projections of a right circular cone of 50 mm base diameter and 70 mm height lying with one of its generators on HP and the axis making an angle of 30° with the VP, with the base away from VP.	*CO1* *CO3*	*PO1* *PO5*	**30**

			UNIT – III (Computer Drafting / Modeling)			
	5		A square prism, base side 40 mm and height 50 mm is placed centrally on a cylindrical slab of diameter 100 mm and thickness 30 mm. Draw the top and front views of the combination. Draft the isometric projection of the combination of solids.	*CO1* *CO3*	*PO1* *PO5*	**30**
			OR			
	6		A hemisphere of diameter 50 mm is resting on its curved surface centrally on the top face of frustum of a rectangular pyramid, base – 80 mm x 60 mm and top 60 mm x 40 mm and height 55 mm. Create a solid model of the combination of solids and generate front view, top view and isometric projection.	*CO1* *CO3*	*PO1* *PO5*	**30**
			UNIT – IV (Sketching)			
	7		A square pyramid of 25 mm base edge and axis 50 mm long rests with its base on HP such that all the base edges are equally inclined to VP. It is cut by a section plane perpendicular to VP and inclined to HP at 60°, passing through the extreme right corner of the base. Draw the one-piece development of the lateral surface of the truncated pyramid.	*CO2*	*PO1* *PO5*	**20**
			OR			
	8		Draw the development of a transition piece used to connect a circular section of 35 mm diameter to a square section of 50 mm side. Both the sections are co-axial and 50 mm apart.	*CO2*	*PO1* *PO5*	**20**

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