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.

			CO	PO	Marks
		UNIT – I (Sketching)			
1	a)	A point G is 25 mm below HP and is situated in the third quadrant. Its shortest distance from line of intersection of HP and VP is 45 mm. Draw its projections and find its distance from VP.	*CO1 CO4*	*PO1*	**05**
	b)	A straight line PQ, 85 mm long, has its end point P 10 mm above HP and 15 mm in front of VP. The top and front views of line measure 75 mm and 80 mm respectively. Draw its projections and determine the true and apparent inclinations.	*CO1 CO4*	*PO1*	**15**
		OR			
2		A regular hexagonal lamina of side 25 mm is lying in such a way that one of its corners is on HP while the opposite corner rests on VP. If the lamina makes 60° to HP, draw the projections of the lamina	*CO1 CO4*	*PO1*	**20**
		UNIT – II (Computer drafting)			
3		A pentagonal pyramid of base 30 mm side and axis 60 mm is resting with one of its sides of the base on HP and the axis is inclined at 30° to HP. Draw its projections when the side of the base which is in HP makes an angle of 45° to VP with apex nearer to VP.	*CO1 CO3 CO4*	*PO5 PO12*	**30**
		OR			
4		A hexagonal prism of side of base 30 mm and height 60 mm is suspended from a corner of its base. The axis is inclined to VP at 30°. Draw its projection.	*CO1 CO3 CO4*	*PO5 PO12*	**30**
		UNIT – III (Computer aided drafting/Solid modelling)			
5		A cone of base diameter 45 mm and height 65 mm placed centrally on top of a pentagonal prism of 45 mm side and 35 mm height. Draw the top and front views. Draft the isometric projection of the combination.	*CO1, CO2 CO3 CO4*	*PO5 PO12*	**30**

			OR			
	6		A hemisphere of diameter 50 mm is centrally resting on top of a square prism of base side 60 mm and height 30 mm such that the curved surface of hemisphere is touching the top face of the prism. i) Create solid model of the combination using Solid edge software. ii) Generate front view, top view, and isometric projection from it.	*CO2* *CO3* *CO4*	*PO1* *PO5* *PO12*	**30**
			UNIT – IV (Sketching)			
	7		A right circular cone of 55 mm diameter of base and 75 mm height stands on its base on HP. It is cut to the truncated cone with a cutting plane inclined at 45° to the axis lying at a distance of 40 mm from the apex of the cone. Obtain the development of the lateral surface of the truncated cone.	*CO2* *CO4*	*PO1* *PO2*	**20**
			OR			
	8		A funnel is made of sheet metal. The funnel tapers from 60 mm to 30 mm diameter to a height of 25 mm and then forms a cylinder with a height of 50 mm. Bottom of the funnel is beveled off at an angle of 45° to axis. Draw the development of the funnel.	*CO2* *CO4*	*PO1* *PO2*	**20**

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