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 / II**

Branch: Common to all Branches **Duration: 3 hrs.**

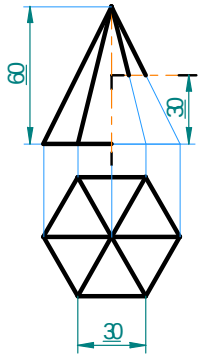
Course Code: 22ME1ESCED/22ME2ESCED/21ME1ESEVI/ 20ME1ESCED **Max Marks: 100**

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.

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 is 30mm below HP, 20 mm behind VP and 15 mm behind LPP. Draw its projections.	*CO1*	*PO1*	**05**
	b)		A straight line 70mm long is inclined at 50° to HP and 30° to VP. Draw the projections of the line when one end point of the line is resting on HP and the other end point touches VP.	*CO1*	*PO1*	**15**
			OR			
2			A pentagonal lamina of 25 mm sides has a corner in VP and the perpendicular bisector of the edge opposite to this corner is inclined to VP at 40° and HP at 30°. Draw its projections.	*CO2*	*PO1*	**20**
			UNIT – II (Computer Aided Drafting)			
3			A hexagonal pyramid of 30 mm sides of base and 65 mm axis length rests such that a slant triangular face is parallel to VP at a distance of 15 mm from it. Draw its projections.	*CO3*	*PO1* *PO5*	**30**
			OR			
4	a)		A square prism 40 mm sides of base and 60 mm axis length is suspended freely from a corner of its base. Draw the projections when the axis is inclined to VP at 20°.	*CO3*	*PO1* *PO5*	**30**
			UNIT – III (Computer Aided Drafting)			
5			A combination of solids is formed as follows. A cylinder of 20 mm base diameter and height 25 mm is placed vertically at the centre of the rectangular face of a horizontal hexagonal prism of base 25 mm sides and axis 60 mm long. Draw the Isometric projection of combination.	*CO3*	*PO5* *PO12*	**30**

			OR			
	6		On a hollow cylinder of outer diameter 60mm, inner diameter 30 mm and axis length 40 mm rests a hexagonal prism of 20 mm sides of base and 50 mm axis length. The prism has a through hole of diameter 20 mm drilled from its top face to base such that the axis of the hole coincides with the axis of the prism. (i) Create solid model of the combination using Solid edge software and (ii) Generate Front view with Right half in section, Top view, Side view and Isometric projection.	*CO3*	*PO5* *PO12*	**30**
			UNIT – IV (Sketching)			
	7		Draw the development of the retained portion of hexagonal pyramid shown in Fig-1  Fig-1	*CO2* *CO4*	*PO1* *PO2*	**20**
			OR			
	8		A duct is required to join a regular pentagonal opening of 40 mm sides and a square opening of 30 mm sides. The two openings are separated by a distance of 50 mm. Draw one half of the development of the duct.	*CO2* *CO4*	*PO1* *PO2*	**20**

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