U.S.N.										

B.M.S. College of Engineering, Bengaluru-560019

Autonomous Institute Affiliated to VTU

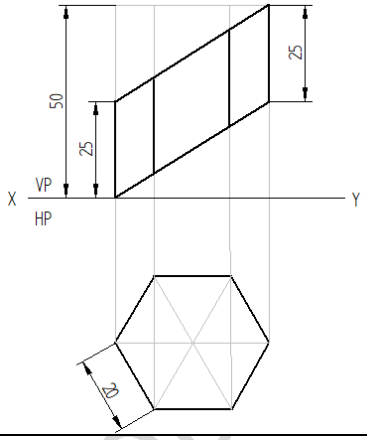
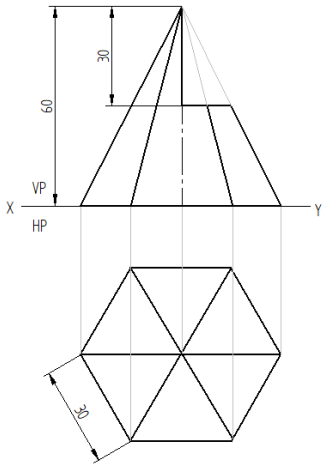
February / March 2025 Semester End Main Examinations

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 is 40 mm in front of VP, 50 mm above HP and 20 mm in front of LPP. Draw its projection and name the side view.	*CO1*	*PO1*	**05**
	b)		A line PQ 70 mm long is inclined at 30° to HP and 45° to VP. The point P is 20 mm above HP and 15 mm in front of VP. Draw its projections. Find the apparent inclinations of the top and front views with the XY line. Also measure the distance between the end projectors.	*CO1*	*PO2*	**15**
			OR			
2			ABC is a triangle of sides AB = 75 mm, BC = 60 mm & CA = 45 mm. The triangle is placed on HP such that its longest side AB is in VP and inclined at 30° to HP. Its surface makes an angle of 45° with VP. Draw its projections	*CO1*	*PO2*	**20**
			UNIT – II (Solid edge)			
3			A pentagonal prism of 25 mm base side and 50 mm axis length rests on HP on one of its corners of the base such that the two base edges containing the corner on which it rests make equal inclinations with HP. Draw the projections of the prism when the axis is inclined to HP at 40^o and to VP at 30^o.	*CO3*	*PO2* *PO5*	**30**
			OR			
4			A hexagonal pyramid of 25 mm base side and 50 mm axis length rests on HP on one of its slant edges. Draw the projections of the pyramid when the axis is inclined to VP at 45^o, while the apex is away from the observer.	*CO3*	*PO2* *PO5*	**30**
			UNIT – III (Solid Edge)			
5			A regular pentagonal prism of base edge 30 mm and axis 60 mm is mounted centrally over a cylindrical block of 80 mm diameter and 25 mm thick. With the help of an isometric scale, draw the isometric projection of the solids.	*CO3*	*PO2* *PO5*	**30**

			OR			
	6		A triangular pyramid of base 40 mm and height 50 mm is placed centrally on a square slab of side 80 mm and 20 mm thick. Obtain a solid model of the combination of solids. Generate the top view, front view and the isometric projection of the combined solids.	*CO3*	*PO2* *PO5*	**30**
			UNIT – IV (Sketching)			
	7		A hexagonal prism of base side 20 mm and height 50 mm is resting on HP on its base, such that one of its base edge is parallel to VP. The prism is cut in this position as shown in the following front view. Draw the development of the lateral surface of the prism.  	*CO2*	*PO2*	**20**
			OR			
	8		A hexagonal pyramid of base 30 mm side with a side of base parallel to VP. Draw the development of the lateral surfaces of the retained portion of the pyramid which is shown in the following figure.  	*CO2*	*PO2*	**20**

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