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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.

			UNIT – I (Sketching)		CO	PO	Marks
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.	1	a)	A point G is 25 mm below HP and is situated in the third quadrant. Its shortest distance from the intersection of XY and X ₁ Y ₁ is 45 mm. Draw its projections and find its distances from VP.	CO1 CO4	PO1 PO2	05	
		b)	A line has its end A, 15 mm above HP and 10 mm in front of VP. The end B is 55 mm above HP and the line is inclined at 30° to HP. The distance between the end projectors when measured parallel to the XY line is 50 mm. Draw the projections of the line. Determine the true length of the line and its inclination with VP.	CO1 CO4	PO1 PO2	15	
		OR					
	2		A circular lamina inclined to VP appears in the front view as an ellipse of major axis 30 mm and minor axis 15 mm. The major axis is parallel to both HP and VP. Draw the projections and find the inclinations with VP.	CO1 CO4	PO1 PO2	20	
		UNIT – II (Solid edge)					
	3		A Pentagonal prism 25 mm sides of base and 80 mm axis length rests on HP on one of its edges of the base. Draw the projections of the prism when the axis is inclined to HP at 40° and VP at 30°	CO1 CO3 CO4	PO1 PO2 PO5 PO12	30	
		OR					
	4		A tetrahedron of sides 40 mm is resting on one of its sides on HP. This side is parallel to VP and 40 mm away from it. It is titled about resting sides such that the base containing this edge is inclined at 30° to HP. Draw the projections of the solid.	CO1 CO3 CO4	PO1 PO2 PO5 PO12	30	
			UNIT – III (Solid edge)				
	5		A square pyramid of base side 40 mm and height 70 mm rests symmetrically on a cube of edge 50 mm. Draw the isometric projection of the solids, if the axes of the solids are in common line.	CO1 CO2	PO1 PO2	30	

OR

6 A Hemisphere of 40 mm diameter is supported co-axially on the vertex of a cone diameter 60 mm and axis length 50 mm. The flat circular face of the hemisphere is facing upside. Generate the isometric projection of the combination of solids.

CO1
CO2

PO1
PO2

30

UNIT – IV (Sketching)

7 A pentagonal prism of base sides 20 mm and height 40 mm is resting with its base on HP and base edge parallel to the VP. The prism is cut as shown in the Fig. 1. Draw the development of the lateral surface of the prism.

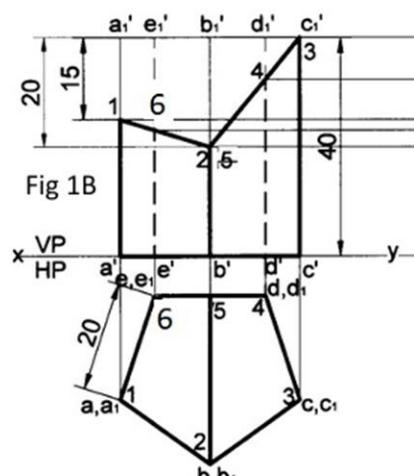


Fig. 1

OR

8 A pentagonal pyramid 30 mm sides with a base perpendicular to VP. Draw the development of the lateral surfaces of the retained portion of the pyramid shown Fig.2.

CO2

PO1
PO2

20

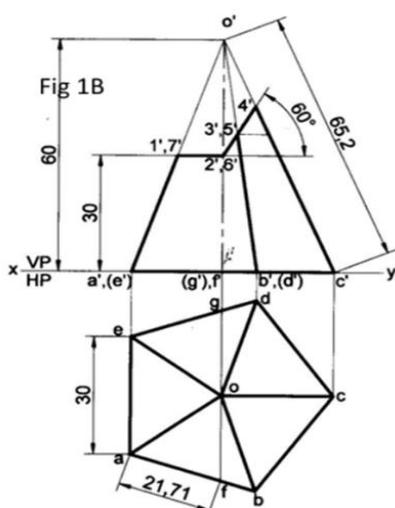


Fig. 2
