U.S.N.										

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

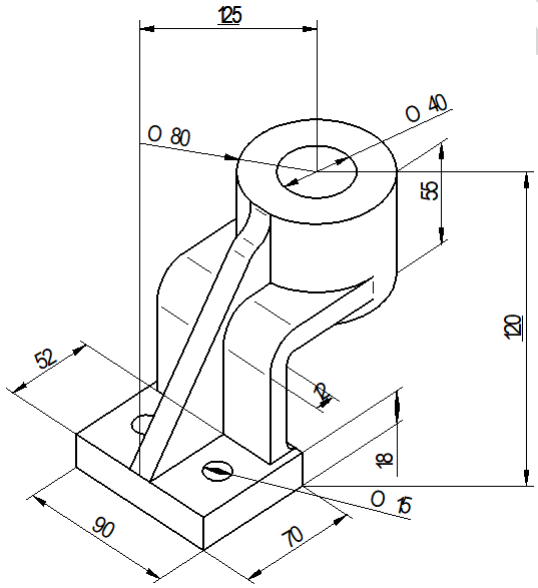
Autonomous Institute Affiliated to VTU

January / February 2025 Semester End Main Examinations

Programme: B.E. **Semester: III**
Branch: Aerospace Engineering **Duration: 3 hrs.**
Course Code: 23AS3PCASD **Max Marks: 100**
Course: Aerospace Drafting

Instructions: 1. Answer any three full questions, choosing one full question from each part.
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.

	PART-A	CO	PO	Marks
1	For the object shown (FIG.Q1) below draw the three views. Show all dimensions.  FIG.Q1	CO1, CO2	PO2	**20**
	OR			
2	Draw the profile of the following threads and indicate all the dimensions i) Acme thread having pitch 60 mm, ii) BSW thread having pitch 50 mm	CO1, CO2	PO2	**20**
	PART-B			
3	Draw the three views of ISO threaded hexagonal headed bolt 160 mm long, 20 mm diameter and a thread length of 50 mm and hexogonal nut assembly in the axis horizontal position. Show the assembly of bolt and nut. Indicate all the proportions and the actual dimensions.	CO1, CO2	PO2	**20**

		OR			
	4	Draw to 1:1 scale the top and sectional front views of a double riveted butt joint with single cover plates and chain riveting. The thickness of the plates is 9 mm. Show at least three rivets in each row. Indicate all the dimensions. Use snap headed rivets.	*CO1, CO2*	*PO2*	**20**
		PART-C			
	5	The Details of the Propeller and hub are shown in the FIG.Q5. Draw front, top and left views of the assembly. Use suitable scale.	*CO3*	*PO3*	**60**
		OR			
	6	The Details of the Engine Mount assembly are shown in the FIG.Q6. Draw front, top and left views of the assembly. Use suitable scale.	*CO3*	*PO3*	**60**

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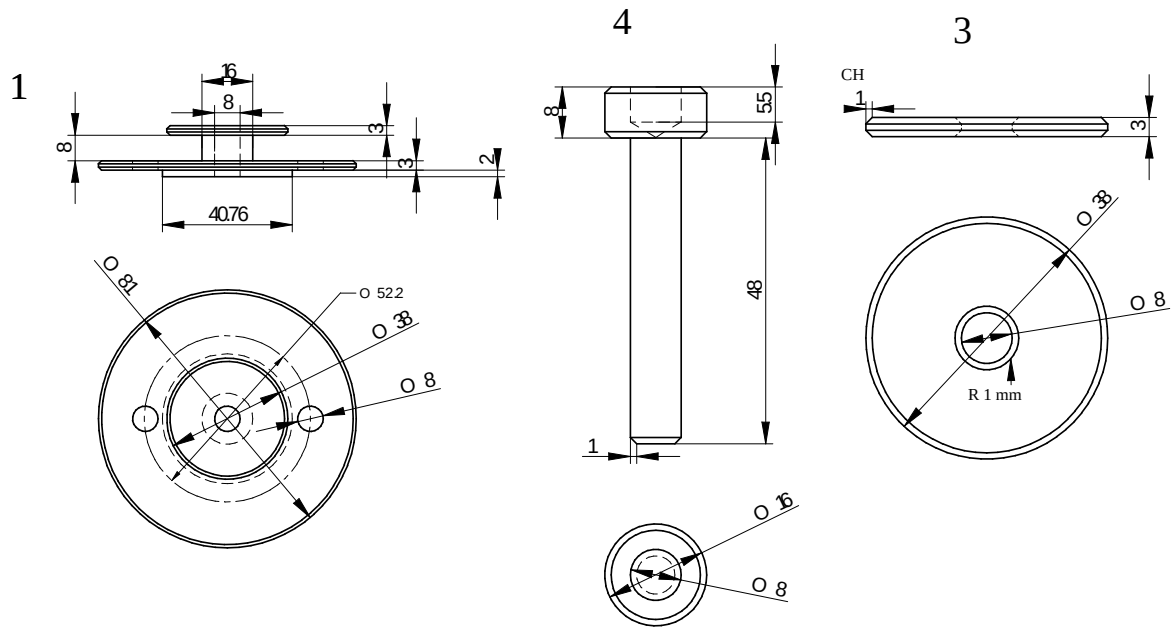
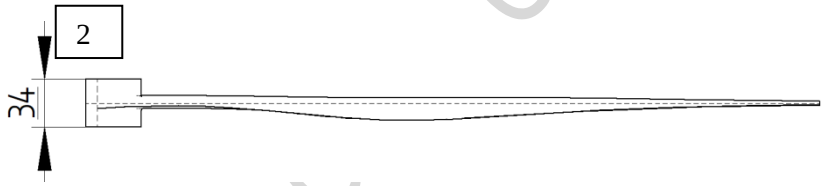
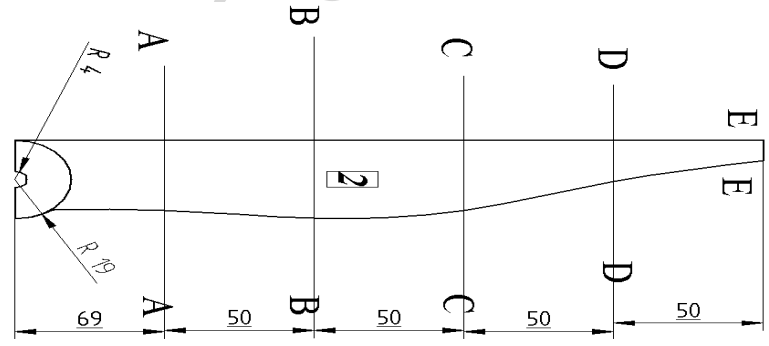
Propeller and Hub



Thickness of the blade (in mm)

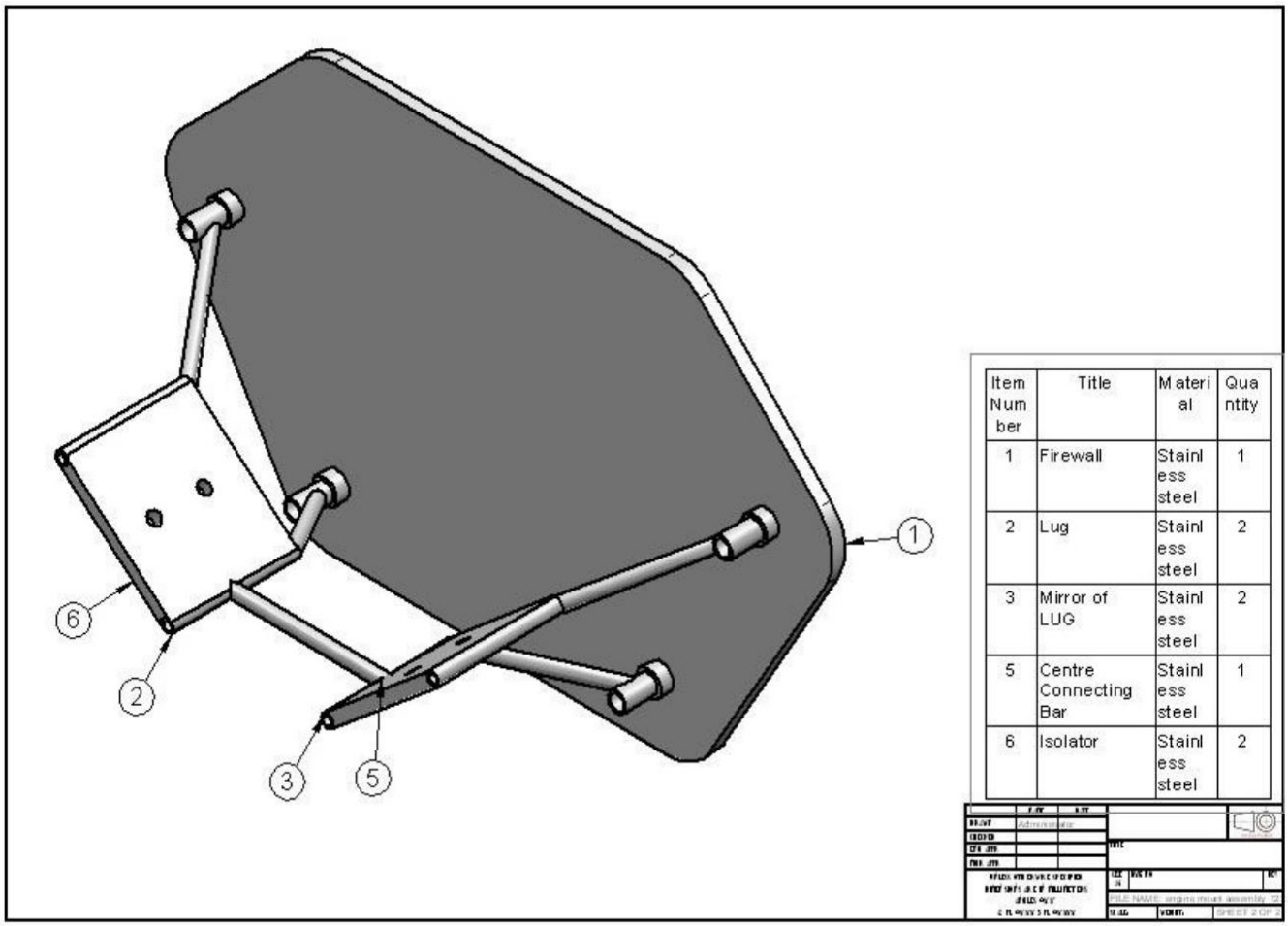
Height of The HUB	HUB	A-A	B-B	C-C	D-D	E-E
34	7	7	7	7	4	2
	CHORD	CHORD	CHORD	CHORD	CHORD	CHORD
	5	5	8	8	3	1
Width		34	38	34	20	10





1.Mount Plate
2.Propeller
3.Face plate
4.Lock Bolt

FIG.Q5



Item Number	Title	Material	Quantity
1	Firewall	Stainless steel	1
2	Lug	Stainless steel	2
3	Mirror of LUG	Stainless steel	2
5	Centre Connecting Bar	Stainless steel	1
6	Isolator	Stainless steel	2

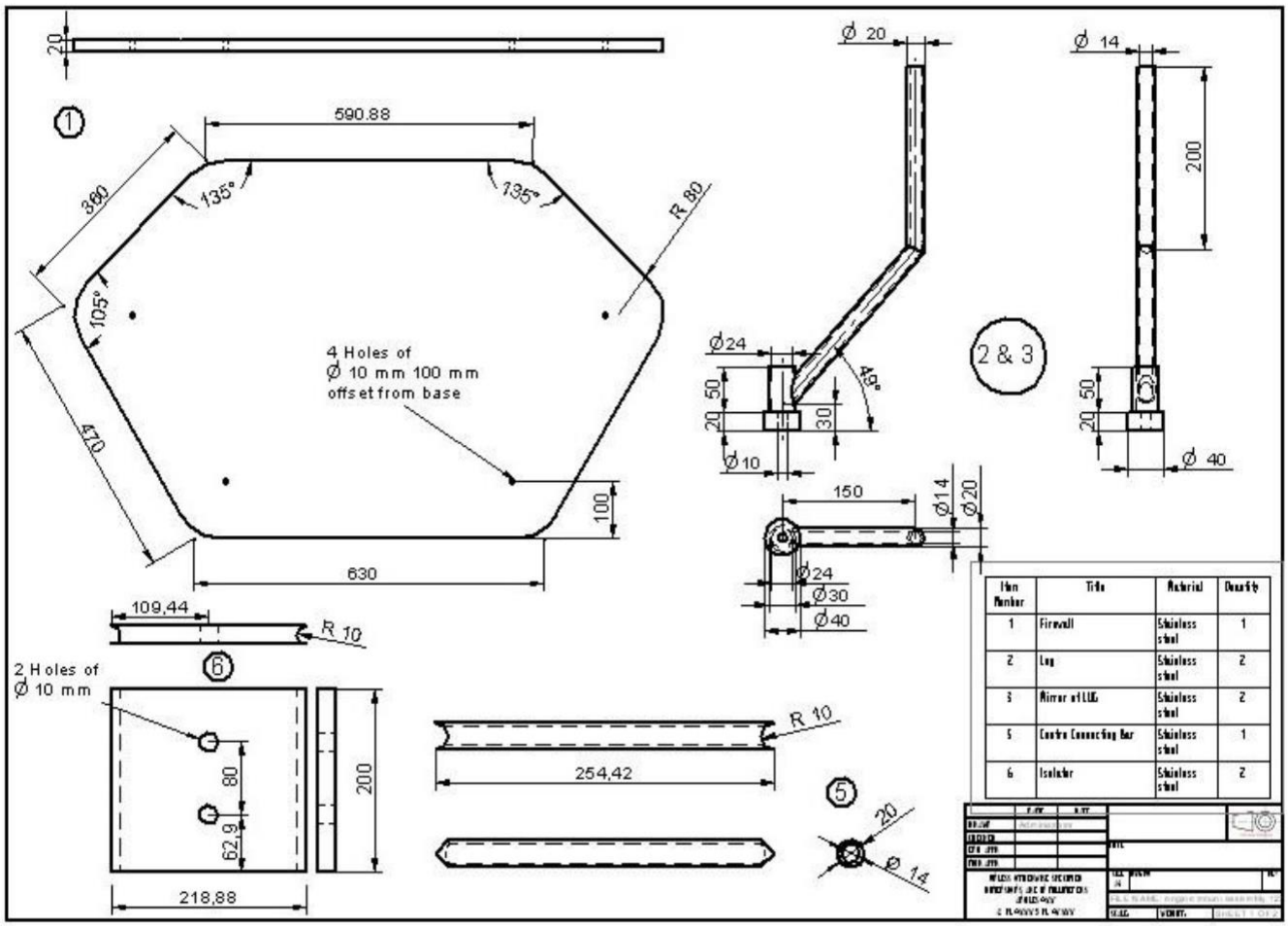


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FIG.Q6