U.S.N.										

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

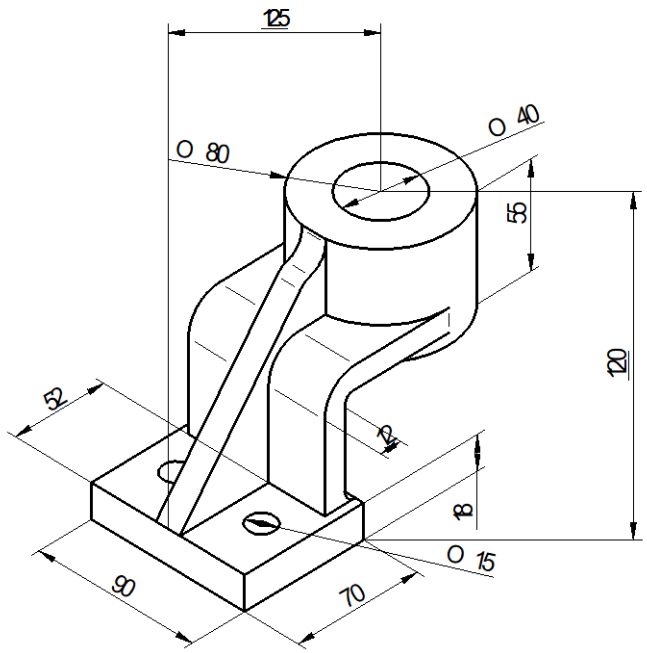
Autonomous Institute Affiliated to VTU

April 2024 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 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 i) Chain ii) zig – zag 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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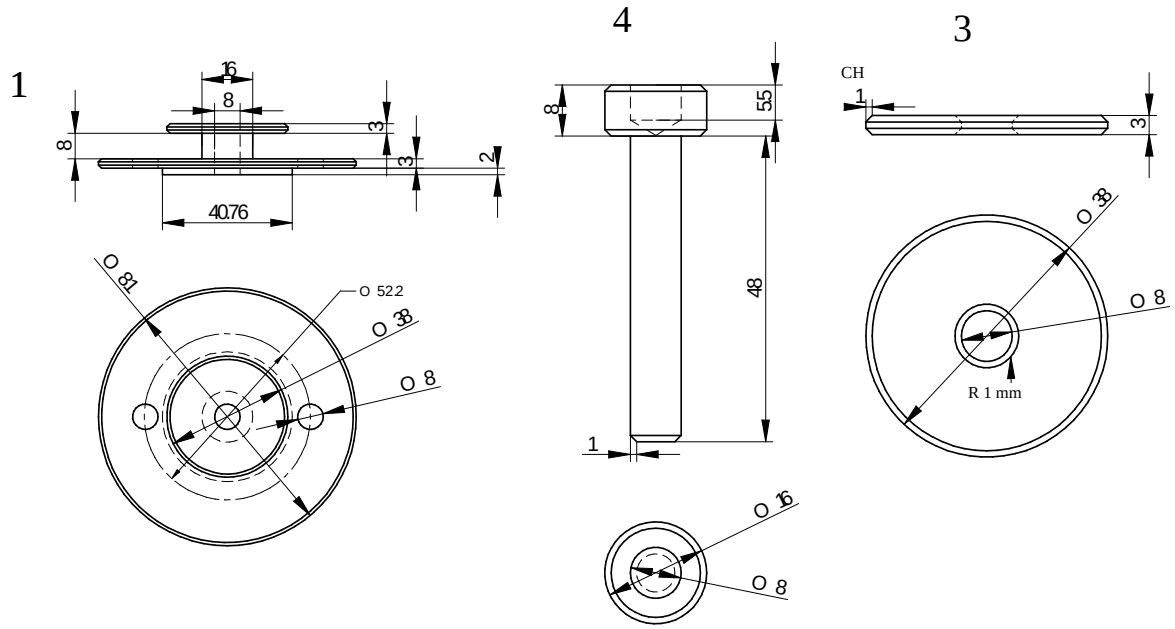
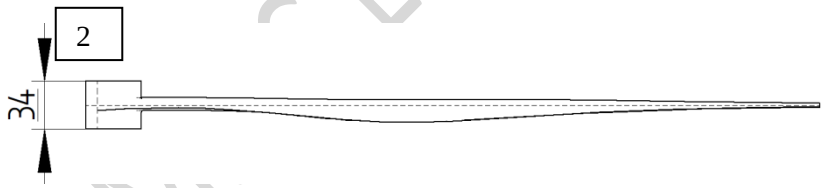
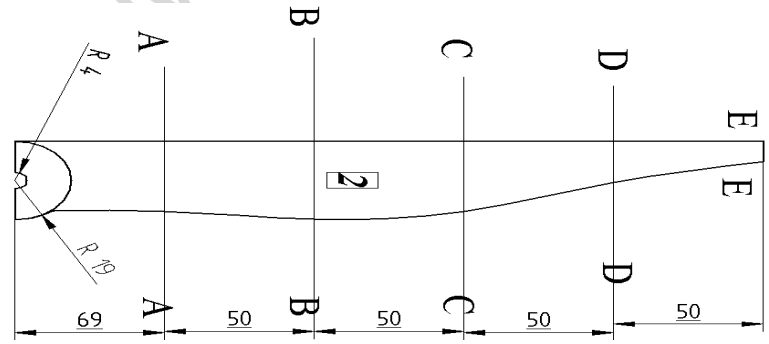
Propeller and Hub



Thickness of the blade (in mm)

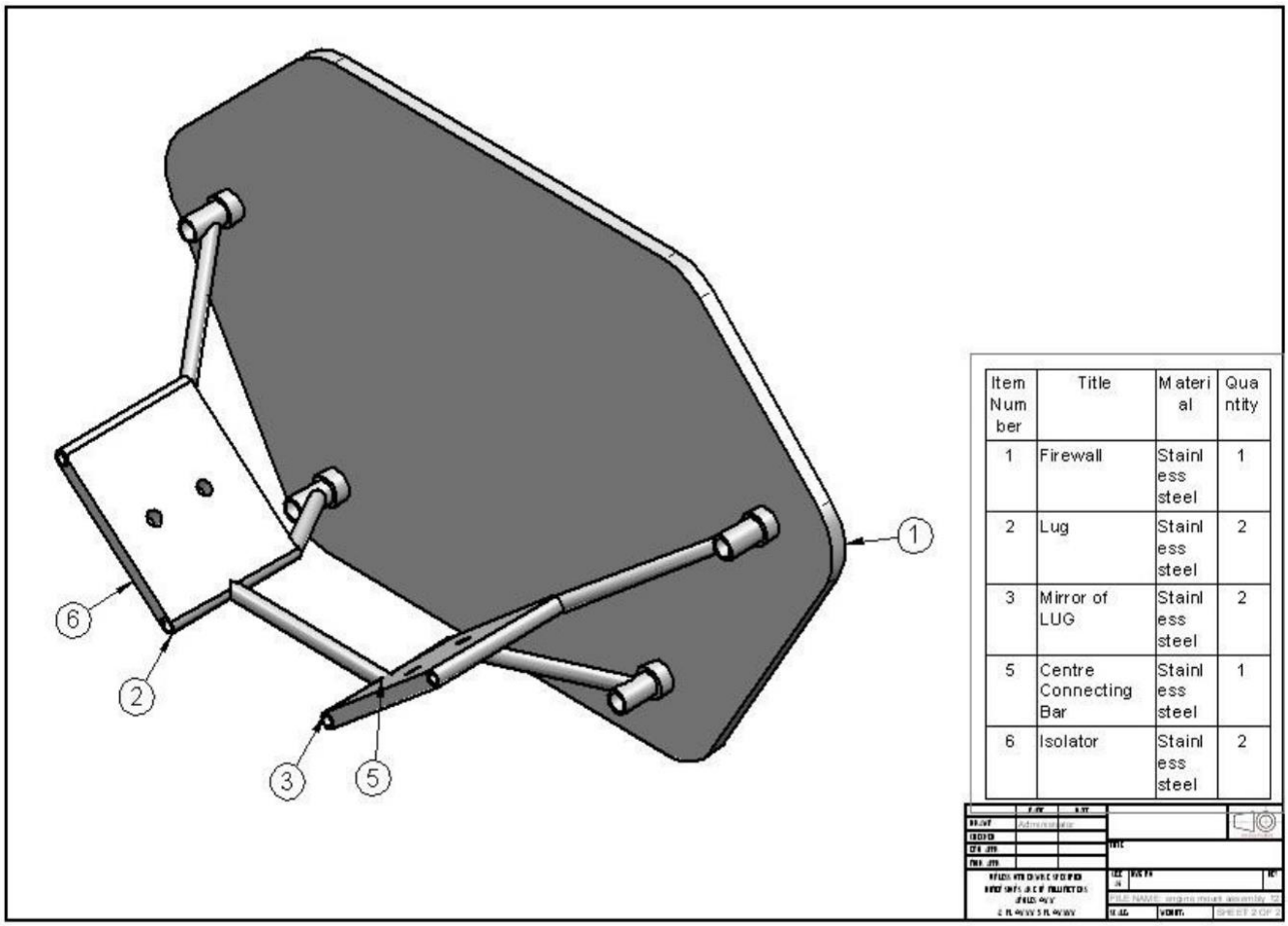
Height of The HUB	HUB	A-A	B-B	C-C	D-D	E-E
34	7	7	7	7	4	2
	CHORD	CHORD	CHORD	CHORD	CHORD	CHORD
	5	5	8	8	3	1
Width		34	38	34	20	10





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

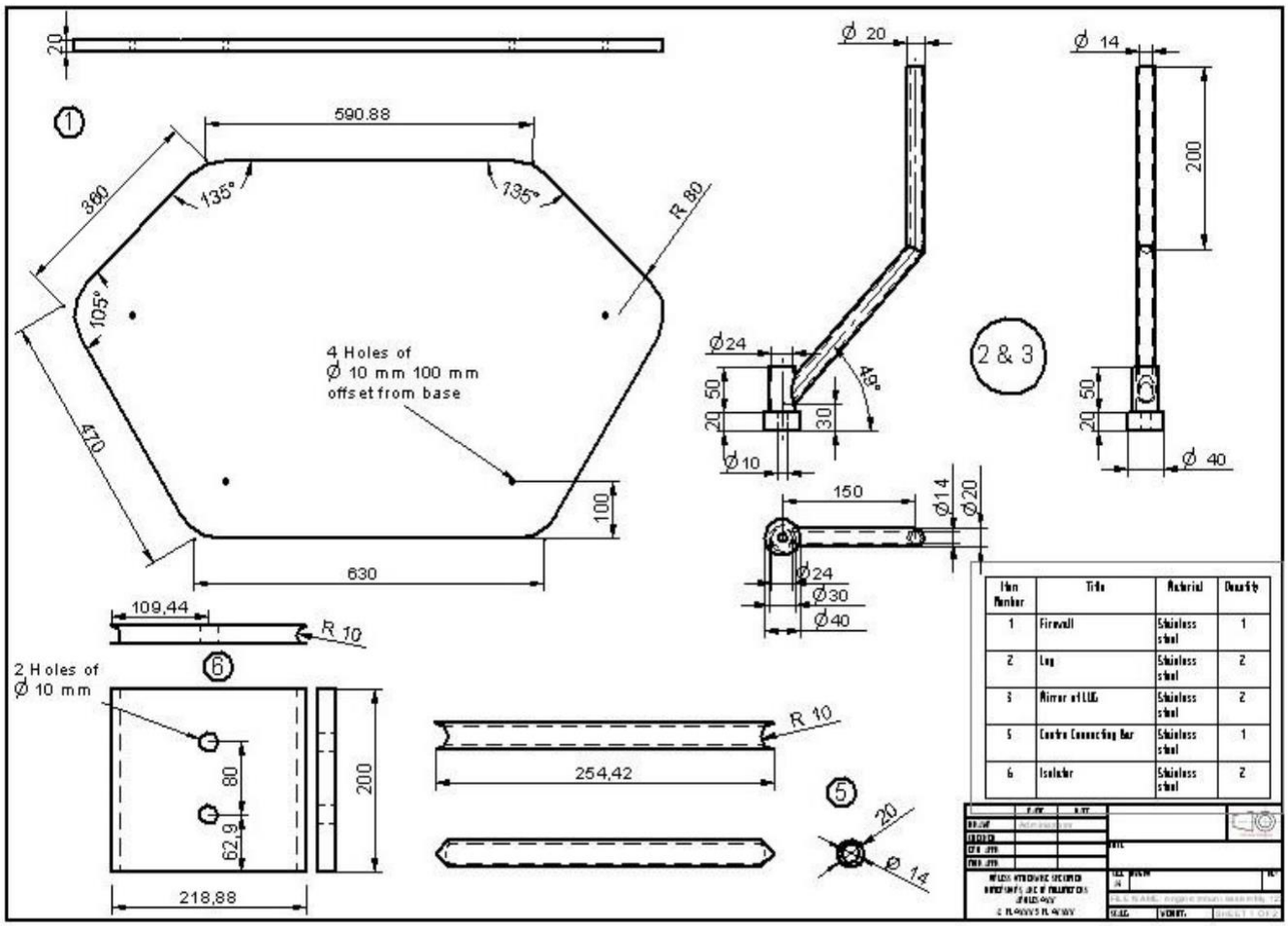


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FIG.Q6