CBCS SCHEME

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BAE306C

Third Semester B.E./B.Tech. Degree Examination, Dec.2024/Jan.2025
Aircraft Maintenance, Repairs and Overhaul

Time: 3 hrs. Max. Marks: 100

Note: 1. Answer any FIVE full questions, choosing ONE full question from each module.
2. M : Marks , L: Bloom's level , C: Course outcomes.

		Module – 1	M	L	C
Q.1	a.	Define welding, with a neat sketch explain gas welding techniques highlighting its importance equipments.	10	L2	CO1
	b.	Outline in detail about soldering and brazing process.	10	L2	CO1
		OR			
Q.2	a.	List various non-destructive method (NDT) used for the damage inspection of sheet metals, outline any two methods in detail.	10	L2	CO1
	b.	Outline in detail about various kinds of sheet metal damages.	10	L2	CO1
		Module – 2			
Q.3	a.	Distinguish between thermoset and thermoplastic plastics.	10	L3	CO2
	b.	Write a note on inspection of plastic components, also explain repair techniques used for cracks and holes.	10	L2	CO2
		OR			
Q.4	a.	Define composite materials, cost the major advantages and disadvantages of composite materials.	10	L2	CO2
	b.	Write a note on manufacturing defects associated with composite materials.	10	L2	CO2
		Module – 3			
Q.5	a.	Analyze in detail about importance of balancing of control surfaces in airplane.	10	L4	CO4
	b.	Write a note on helicopter flight control concepts.	10	L2	CO4
		OR			
Q.6	a.	Analyze in detail about the inspection and maintenance of landing gear system.	10	L4	CO3
	b.	With a neat sketch write a note on water and water waste system.	10	L2	CO3
		Module – 4			
Q.7	a.	Develop with a neat sketch Auxiliary Power Unit (APU) for energy balance in aviation field.	10	L3	CO2
	b.	Analyze in detail about ice protection system.	10	L4	CO2
		OR			
Q.8	a.	Identify and brief hazardous materials storage and handling techniques in detail with respect to aircraft maintenance.	10	L3	CO3
	b.	Analyze the concept of trouble shooting in aviation.	10	L4	CO3
		Module – 5			
Q.9	a.	Explain in detail about manufacturing documentation in maintenance field.	10	L2	CO1
	b.	Make use of regulatory documentation how maintenance activities are performed in aviation.	10	L3	CO1
		OR			
Q.10	a.	Explain in detail why do you need maintenance also outline about the types of maintenance.	10	L2	CO1
	b.	With a line diagram identify failure rate patterns of maintenance in detail.	10	L3	CO2

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