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Third Semester B.E./B.Tech. Degree Examination, Dec.2025/Jan.2026 Aircraft Maintenance, Repair 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.	Explain about the quality of welding and how it is ensuring.	05	L2	CO1
	b.	Discuss about jigs and fixtures used in welding.	05	L2	CO1
	c.	Describe about soldering and brazing procedure.	10	L2	CO1
OR					
Q.2	a.	Explain about NDT testing in sheet metal inspection, explain any two methods.	10	L2	CO1
	b.	Illustrate any two kinds of sheet metal damages.	05	L2	CO1
	c.	How the damage investigation is carried out in sheet metal damage.	05	L2	CO1
Module – 2					
Q.3	a.	Name the different types of plastic used in aircraft and explain them with application.	10	L2	CO2
	b.	Explain how the plastic components in aircraft will be maintained and will be repaired.	05	L2	CO2
	c.	Explain the repair techniques for cracks and holes in aircraft.	05	L2	CO2
OR					
Q.4	a.	What is composite materials and why the materials is used in the aircraft with advantage and disadvantage.	10	L2	CO2
	b.	Explain about autoclave process and with short note explain the manufacturing defects in composite materials.	10	L2	CO2
Module – 3					
Q.5	a.	Explain about the importance of balancing of control surface in aircraft and explain in detail.	10	L2	CO3
	b.	Discuss about how the tracking and balancing of main rotor in helicopter flight control and write the importance of it.	10	L2	CO3
OR					
Q.6	a.	Describe about the trouble shooting and maintenance practice held in the aircraft operations.	10	L2	CO3
	b.	Explain about : i) air conditioning ii) Pressurization system with diagram and its importance.	10	L2	CO3
Module – 4					
Q.7	a.	Explain the types of auxiliary system discuss about any 2 systems with diagram and its importance.	10	L2	CO4
	b.	Discuss about how the APU will be maintained and do the inspection steps.	10	L2	CO4

OR

Q.8	a.	Explain about the types and classification of Hazardous materials and how it will be handled during fly time and prepare any example of log sheets.	10	L2	CO4
	b.	Describe about the accident's happened while handling the hazardous materials and explain how it is controlled.	10	L2	CO4

Module – 5

Q.9	a.	Explain how the manufacturer's documentation provides essential reference information for maintaining aircraft according to design specification.	10	L2	CO5
	b.	Describe how the Airplane Maintenance Manual (AMM) and Wiring Diagram Manual (WDM) assist maintenance engineers in performing and documenting system inspection.	10	L2	CO5

OR

Q.10	a.	Explain about Illustrate Parts Catalogue (IPC) and the Structural Repair Manual (SRM) in terms of their role in component replacement and air frame repair.	10	L2	CO5
	b.	Discuss the importance of following Federal Aviation Regulations (FAR), Advisory Circulars (ACs) and Technical Policies and Procedures Manuals (TPPM) to ensure compliance with Airworthiness Directives (ADs) and ATA documentation standards.	10	L2	CO5
