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BAE701

Seventh Semester B.E./B.Tech. Degree Examination, Dec.2025/Jan.2026 Avionics and Systems

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.	Distinguish the modern control systems and the conventional systems that are used in the aircraft.	10	L1	CO1
	b.	Examine how does the autopilot system improve aircraft safety with a neat block diagram.	10	L2	CO1
OR					
Q.2	a.	Describe the function and the importance of hydraulic systems in aircraft.	10	L2	CO2
	b.	With a neat sketch, analyze the landing gear system support an aircraft during take off and landing.	10	L2	CO2
Module – 2					
Q.3	a.	Contrast the fuel delivery system between piston engine aircraft and jet engine aircraft.	10	L2	CO2
	b.	Show the components and function of a piston engine ignition system.	10	L2	CO2
OR					
Q.4	a.	Illustrate the working of a basic air cycle air conditioning system in a commercial aircraft.	10	L2	CO2
	b.	Explain the impact of de-icing and anti-icing systems on aircraft safety and performance.	10	L2	CO2
Module – 3					
Q.5	a.	With a neat labeled diagram demonstrate the function of pitot-static system.	10	L2	CO2
	b.	Describe the function and importance of Altimeter and vertical speed indicator in aircraft instrumentation.	10	L2	CO2
OR					
Q.6	a.	Explain the importance of Mach warning system in monitoring aircraft performance.	10	L2	CO2
	b.	Examine how does a tachometer contribute to flight safety and engine monitoring.	10	L3	CO2

Module – 4

Q.7	a.	Analyze the primary function of a bus bar system in an aircraft's electrical power distribution.	10	L2	CO3
	b.	Summarize the role of special-purpose cables in an aircraft's power distribution system.	10	L2	CO3

OR

Q.8	a.	Compare the avionics needs of military aircraft with those of civil aircraft.	10	L2	CO3
	b.	Identify the role of circuit controlling devices for a basic aircraft electrical system.	10	L2	CO3

Module – 5

Q.9	a.	With a neat schematic diagram, explain the working principle of head up display system.	10	L2	CO3
	b.	Analyze the intelligent display management system is assisting the pilot in carrying out the mission.	10	L3	CO3

OR

Q.10	a.	Illustrate the function of MIL_STD_1553B in data bus communication.	10	L2	CO3
	b.	Examine fire protection detect systems and suppress fire system in aircraft.	10	L3	CO3
