SEMESTER VI

Subject : Helicopter aeroplane aerodynamics structure system Part – D Theory

Topics	Level
12.7 Instruments/Avionic Systems	2
12.7.1 Instrument Systems	
Pitot static: altimeter, air speed indicator, vertical speed indicator	
Gyroscopic: artificial horizon, attitude director, direction indicator,	
horizontal	
situation indicator, turn and slip indicator, turn coordinator;	
Compasses: direct reading, remote reading;	
Vibration indicating systems — HUMS;	
Glass Cockpit	
Other aircraft system indication.	
12.7.2 Avionic Systems	
Fundamentals of system layouts and operation of:	
Auto Flight (ATA 22);	
Communications (ATA 23);	
Navigation Systems (ATA 34).	
12.17 Integrated Modular Avionics	2
Functions that may be typically integrated in the Integrated Modular	
Avionic (IMA) modules are,	
among others:	
Bleed Management, Air Pressure Control, Air Ventilation and Control,	
Avionics and Cockpit	
Ventilation Control, Temperature Control, Air Traffic Communication,	
Avionics Communication	
Router, Electrical Load Management, Circuit Breaker Monitoring, Electrical	
System BITE, Fuel	
Management, Braking Control, Steering Control, Landing Gear Extension	
and Retraction, Tyre	
Pressure Indication, Oleo Pressure Indication, Brake Temperature	
Monitoring, etc.	
Core System;	
Network Components.	
12.19 Information Systems (ATA46)	2
The units and components which furnish a means of storing, updating and	
retrieving digital	
information traditionally provided on paper, microfilm or microfiche.	
Includes units that are	
dedicated to the information storage and retrieval function such as the	
electronic library mass storage	
and controller. Does not include units or components installed for other	
uses and shared with other	
systems, such as flight deck printer or general use display.	
Typical examples include Air Traffic and Information Management Systems	
and Network Server	
Systems.	

Aircraft General Information System; Flight	
Deck Information System; Maintenance	
Information System; Passenger Cabin	
Information System; Miscellaneous	
Information System.	