

R09

Code No: 09A82101

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD

B. Tech IV Year II Semester Examinations, May - 2013

Avionics and Instrument Systems  
(Aeronautical Engineering)

Time: 3 Hours

Answer any Five Questions  
All Questions Carry Equal Marks



1. Explain the different types of data buses used in aircraft. What is the role of a data bus in an aircraft? [15]
2. What are the main features of an advanced flight deck display system? [15]
3. Explain how Traffic Collision Avoidance System and VHF Omni Range system work. [15]
4. Write notes on:  
a) Flight Management System,  
b) ILS approach. [8+7]
- 5.a) Explain the 'Fly-by-wire' control of modern aircraft. What is the role of sensors in the control of the aircraft?  
b) Describe the working of electrically signalled, hydraulically powered actuator systems. [10+5]
- 6.a) What are the aims of Air Transport Management?  
b) Explain the 'Required Navigation Performance' (RNAV) of aircraft. [9+6]
- 7.a) What are the navigational aids of military aircraft?  
b) What is 'airborne early warning system'? [10+5]
8. How is the attitude of a satellite determined and controlled?

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