

SATHYABAMA UNIVERSITY

(Established under section 3 of UGC Act,1956)

Course & Branch :B.E - AERO

Title of the Paper :Avionics

Sub. Code :526E10

Date :06/03/2010

Max. Marks :80

Time : 3 Hours

Session :AN

PART - A

(10 x 2 = 20)

Answer ALL the Questions

1. Explain the advantage of using avionics in military aircraft.
2. What is avionics?
3. Differentiate between volatile and non volatile memories.
4. What are digital computers?
5. Explain Federated architecture.
6. List out the MIL-STD 1553B hardware elements.
7. What is an auto pilot?
8. Define plasma panel.
9. What is INS?
10. What is meant by jammers in electronic warfare?

PART – B
Answer All the Questions

(5 x 12 = 60)

11. With a neat block diagram explain the integration of different avionics system.

(or)

12. Explain in detail about avionics and its categories.

13. With a neat sketch explain 8085 microprocessor architecture in detail.

(or)

14. Draw the functional representation of ROM memory cell and explain the concept underlying the ROM.

15. Explain the ARINC 429 data bus in detail.

(or)

16. Explain MIL STD 1553 B data bus in detail bringing out clearly the protocol and conceptual description message formats and coupling methods.

17. Explain in detailed about plasma panel.

(or)

18. Explain the basic principle of HUD and what are its limitations? How are they overcome in HMD?

19. What is radar functions and its roles?

(or)

20. List out the Radar frequency bands Band Name Frequency Range Wavelength Range Notes.