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Question Paper Code : 71336

B.E./B.Tech. DEGREE EXAMINATION, APRIL/MAY 2017.

Seventh Semester

Aeronautical Engineering

AE 6701 — AVIONICS

(Regulations 2013)

Time : Three hours

Maximum : 100 marks

Answer ALL questions.

PART A — (10 × 2 = 20 marks)

1. Write the need of avionics in civil, military and space systems.
2. With neat sketches differentiate multiplexer and demultiplexer.
3. Write short note on ARINC-629 data bus.
4. Write the message format of MIL STD 1533B.
5. Define ACARS system.
6. Define MFDS system.
7. Write short notes on GPS.
8. What is LORAN system?
9. Define altitude warning system.
10. Write short note on vertical speed indicator.

PART B — (5 × 16 = 80 marks)

11. (a) Explain various layers of avionics systems used in a typical aircraft with diagrams.

Or

- (b) Explain 8085 microprocessor architecture.

12. (a) Explain ARINC 420 in detail.

Or

(b) Explain MIL STD 1553 B bus system in detail.

13. (a) Explain CRT, LED, LCD, EL and Plasma panel in detail.

Or

(b) Explain the principles, merits and demerits of HUD, HMD, DVI, Touchscreen.

14. (a) Explain ILS and MLS in detail with necessary diagrams.

Or

(b) Explain Inertial Navigation System with block diagram.

15. (a) Explain the basic principles of longitudinal and lateral autopilots.

Or

(b) Explain in detail aircraft warning systems with necessary diagrams.