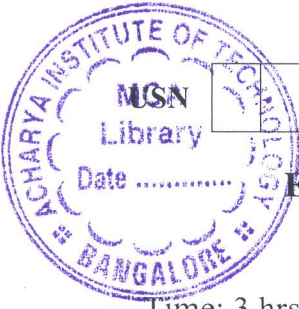


CBCS SCHEME



18AE821

Eighth Semester B.E. Degree Examination, Jan./Feb. 2023 Avionics

Time: 3 hrs.

Max. Marks: 100

Note: Answer any FIVE full questions, choosing ONE full question from each module.

Module-1

- 1 a. Explain split bus bar system used for electrical power distribution on board the aircraft. (10 Marks)
- b. Explain the following:
- i) Pressure switch
 - ii) Proximity switch
 - iii) Time switch. (10 Marks)

OR

- 2 a. Explain briefly about the special purpose cables in aircraft electrical systems. (10 Marks)
- b. What do you mean by pole and throw? Explain with the help of suitable sketches the possible arrangement. (10 Marks)

Module-2

- 3 a. Explain roll and pitch rate command control, with neat sketch. (10 Marks)
- b. Explain frequency response of a typical FBW actuator with a neat schematic plot. (10 Marks)

OR

- 4 a. Explain with suitable sketch basis operational principle of inertial navigation system. (10 Marks)
- b. What are the common modes of failures in avionics systems? (10 Marks)

Module-3

- 5 a. Explain the different radio frequency band on which the aircraft communications are usually carried out. (10 Marks)
- b. Describe types of failure warning annunciations. (10 Marks)

OR

- 6 a. List the basic six flight instrument and with a neat schematic, explain about basic 'T' type of flight instrument grouping. (10 Marks)
- b. With a neat sketch, write note on oscillator. (10 Marks)

Module-4

- 7 a. Write short notes on:
- i) CRT Display
 - ii) Plasma Panel
- b. List and explain different types of memories. (10 Marks)

Important Note : 1. On completing your answers, compulsorily draw diagonal cross lines on the remaining blank pages.
2. Any revealing of identification, appeal to evaluator and/or equations written eg. 42+8 = 50, will be treated as malpractice.

OR

- 8 a. Explain the internal architecture of an 8085 with neat diagram. (10 Marks)
b. Write short notes on: i) HOTAS ii) MFK. (10 Marks)

Module-5

- 9 a. Explain different types of words transferred in MIL-STD 1553B. (10 Marks)
b. Write short note on:
i) Electronic warfare
ii) Navigation system. (10 Marks)

OR

- 10 a. Explain Integrated system architecture, with neat diagram. (10 Marks)
b. Give a brief description about avionics equipment fit. (10 Marks)

* * * * *