

CBCS SCHEME

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15AE81

Eighth Semester B.E. Degree Examination, November 2020 Avionics

Time: 3 hrs.

Max. Marks: 80

Note: Answer any FIVE full questions irrespective of modules.

Module-1

- 1 a. With a schematic diagram, explain split bus bar system. (08 Marks)
- b. Explain briefly about the special purpose cables used in aircraft electrical system. (08 Marks)
- 2 a. Describe the construction and operation of micro switch. (08 Marks)
- b. Explain the importance of avionic system in civil and military aircraft. (08 Marks)

Module-2

- 3 a. Explain the principle of inertial navigation system with suitable diagram. (08 Marks)
- b. Explain in detail about structure of stable platform. (08 Marks)
- 4 a. Explain about the pitch rate command system with neat diagram. (08 Marks)
- b. Define common modes of system failure with example. (08 Marks)

Module-3

- 5 a. List the basic six flight instrument with a neat schematic, explain about basic "T" type of flight instrument grouping. (08 Marks)
- b. Write short note on failure annunciation. (08 Marks)
- 6 a. Explain the different radio frequency band on which aircraft communication are usually carried out. (08 Marks)
- b. Explain these antenna in detail: i) Dipole ii) Marconi. (08 Marks)

Module-4

- 7 a. Explain the principle of HUD with a neat sketch. (08 Marks)
- b. Write short notes on: i) LCD ii) CRT iii) Plasma panel (08 Marks)
- 8 a. Write short notes on: i) HOTAS ii) Direct Voice Input iii) Multi functional keyboard. (08 Marks)
- b. Write short notes on: i) RAM ii) PROM iii) EPROM (08 Marks)

Module-5

- 9 a. Give brief discussion about Avionics equipment fit. (08 Marks)
- b. Explain MILSTD1553 bus system with neat diagram. (08 Marks)
- 10 a. Explain the working principle of RADAR. (08 Marks)
- b. Explain navigation system. (08 Marks)

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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.