



CBGS SCHEME

17AE81

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. With a schematic diagram, explain split buss bar system. (10 Marks)
b. Explain briefly about the special purpose cables used in aircraft electrical system. (10 Marks)

OR

- 2 a. With relevant sketch, explain the following :
i) Mercury switches
ii) Proximity switches
iii) Rotary switches
iv) Toggle switches. (12 Marks)
b. Explain the importance of avionics system in civil and military aircraft. (08 Marks)

Module-2

- 3 a. Explain in detail about structure of stable platforms. (10 Marks)
b. Explain the principle of inertial navigation system with suitable diagram. (10 Marks)

OR

- 4 a. With relevant figure, explain briefly about Cooper Harper Scale. (10 Marks)
b. With neat sketch, explain briefly about the fly by wire system. (10 Marks)

Module-3

- 5 a. List the basic flight instruments used on the aircraft, represent with a schematic basic six diagram and basic T type of flight instrument grouping. (15 Marks)
b. Write short notes on failure annunciation. (05 Marks)

OR

- 6 a. Explain the different radio frequency band on which, the aircraft communication is usually carried out. (10 Marks)
b. Explain these antennas in detail : i) di pole ii) Marconi. (10 Marks)

Module-4

- 7 a. Explain the principle of HUD with neat sketch, what are its limitations. (10 Marks)
b. What are MFD? With relevant sketch, explain briefly and mention its usage. (10 Marks)

OR

- 8 Write short notes on the following :
i) HOTAS ii) CRT iii) Plasma panel iv) RAM. (20 Marks)

Module-5

- 9 a. Explain MIL – STD 1553B bus system with neat diagram. (10 Marks)
b. With relevant sketch, explain about electronic warfare system. (10 Marks)

OR

- 10 a. Give brief discussion about avionics equipment fit. (10 Marks)
b. Explain with relevant sketch about navigation system. (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.