CBCS SCHEME

USN ☐☐☐☐☐☐☐☐☐☐   18AE821

Eighth Semester B.E. Degree Examination, July/August 2022
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 spit bus bar system.   (10 Marks)
    b.   Explain briefly about the special purpose cable used in aircraft electrical system.   (10 Marks)

OR

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

Module-2

3   a.   Explain the pitch rate command system with relevant figure.   (10 Marks)
    b.   With a neat sketch, explain briefly about the fly by wire system.   (10 Marks)

OR

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

Module-3

5   a.   List the basic sine flight instrument with a neat sketch. Explain about basic 'T' type of flight
         instrument grouping.   (15 Marks)
    b.   Write short note on failure annunciation.   (05 Marks)

OR

6   a.   Explain the different radio frequency band on which aircraft communication usually carried
         out.   (10 Marks)
    b.   Write short notes on the following : i) Transmitter ii) Antenna iii) Receiver.   (10 Marks)

Module-4

7   a.   Explain the principle of HUD with neat sketch and list out its limitation.   (10 Marks)
    b.   What are MFD, with relevant sketch explain briefly and mention its usage.   (10 Marks)

OR

8   Write short note on the following : i) HOTAS ii) CRT iii) Plasma Panel iv) Ram.   (20 Marks)

Module-5

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

OR

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

* * * * *