Eighth Semester B.E. Degree Examination, Aug./Sept.2020
AVIONICS

Time: 3 hrs.   Max. Marks:100

Note: *Answer any FIVE full questions, selecting atleast TWO questions from each part.*

PART – A

1 a. With neat diagram, describe about the Split Bus Bar system used for power distribution in the aircraft. **(10 Marks)**
   b. Write short notes on special purpose cables and also give the details on need for Avionics in civil and military aircrafts. **(10 Marks)**

2 a. Describe about the Inertial Navigation System, with neat diagram. **(08 Marks)**
   b. With a clear diagram, explain about the stable platform and also list down the importance of compass swing. **(12 Marks)**

3 a. Discuss in detail about the working principle of Roll Rate Command Fly by wire system with neat diagram. **(12 Marks)**
   b. Write notes on Cooper Harper Scale and Common modes of failures and effect analysis. **(08 Marks)**

4 a. Bestow the basic flight instruments used in aircraft and also write short notes on basic six and 'T' type flight instrument grouping **(12 Marks)**
   b. Explain about the Air data system, with neat diagram. **(08 Marks)**

PART – B

5 a. With neat block diagram, discuss about the Aircraft Communication System. **(10 Marks)**
   b. Write short notes on :
      i) Amplifier   ii) Oscillator   iii) Antennas. **(10 Marks)**

6 a. Discuss in detail about the architecture and working principle of 8085 Microprocessor , with neat diagram. **(12 Marks)**
   b. Classify the types of memories with a tree diagram and explain. **(08 Marks)**

7 a. Write notes on :
      i) Touch Screen   ii) D V I   iii) CRT and LED. **(12 Marks)**
   b. Discuss about the working principle of three elements HUD used in military aircrafts. **(08 Marks)**

8 a. Write short notes on Avionics equipment fit and fire control system. **(08 Marks)**
   b. Discuss in detail about the working principle of MIL – STD 1553 B data bus and its word formats. **(12 Marks)**

*****