

Roll No. 

Total No. of Pages : 02

Total No. of Questions : 09

B.Tech.(Aerospace Engg.) (2012 Batch) (Sem.-7,8)

**AVIONICS**

Subject Code : ASPE-404

Paper ID : [72567]

Time : 3 Hrs.

Max. Marks : 60

**INSTRUCTIONS TO CANDIDATES :**

1. SECTION-A is COMPULSORY consisting of TEN questions carrying TWO marks each.
2. SECTION-B contains FIVE questions carrying FIVE marks each and students have to attempt any FOUR questions.
3. SECTION-C contains THREE questions carrying TEN marks each and students have to attempt any TWO questions.

**SECTION-A****Q.1 Answer briefly :**

- a) List various components of typical avionics subsystems.
- b) What do you mean by special purpose cables? Give examples.
- c) Define bus bar and its function.
- d) What do you understand by Cooper Harper scale?
- e) What do you understand by glass cockpit?
- f) What do you mean by avionics equipment kit?
- g) List various communication and navigation systems used in aviation.
- h) List various functions of radar.
- i) What do you mean by FBW actuator?
- j) Explain the electrical data bus system.

**SECTION-B**

Q.2 Explain Inertial platform. What do you understand by structure of stable platform?

Q.3 Define and explain the importance of redundancy.

Q.4 Explain the avionics architecture of commercial aircraft with the help of a diagram.

Q.5 What do you mean by electronic warfare and how is it operated?

Q.6 Explain the working principle of 'HUD'.

**SECTION-C**

Q.7 What do you mean by Digital systems? Discuss how modern digital systems have affected aviation. (2,8)

Q.8 Write notes on the following :

a) HOTAS

b) MFK

(2×5)

Q.9 Write notes on the following :

a) DVI

b) Touch Screen

(2×5)