

Code No: **R41215****R10****Set No. 1****IV B.Tech I Semester Supplementary Examinations, February - 2019****AVIONICS****(Common to Mechanical Engineering and Aeronautical Engineering)****Time : 3 hours****Max. Marks: 75****Answer any FIVE Questions
All Questions carry equal marks***********

1. a) Explain the need of avionics in Civil and military aircrafts. [8]
b) With a neat sketch explain a typical Avionics sub system. [7]
2. a) What are the interacting devices between the Pilot and Avionic equipment? [7]
b) With a neat sketch explain 8085 microprocessor architecture in detail and bring out its salient features and its role in Avionics systems. [8]
3. a) What is the need for communication systems in an aircraft? [10]
b) What is the difference between VHF and UHF communication systems? [5]
4. Explain the following (a) VOR receiver principles (b) Localizer and glideslope. [15]
5. a) Explain in detail the application of GPS for Air bone applications using Interferometric GPS (IGPS) Flight Reference System. [9]
b) What is triangulation? Explain. [6]
6. a) What is the need for navigation system and explain any one of the modern navigation system with a neat schematic diagram. [8]
b) What is the principle of accelerometer?? How does the accelerometer work? [7]
7. a) Explain about the collision avoidance system. [8]
b) What is the function of ATC Surveillance system? Explain. [7]
8. a) Compare data transfer using ARINC 429, ARINC 629 with neat sketch. [7]
b) What is digital fly by wire control? explain its salient features with the block schematics in comparison with the conventional flight control system. [8]