

Code No: **R41215****R10****Set No. 1****IV B.Tech I Semester Supplementary Examinations, February/March - 2018****AVIONICS****(Open Elective)****Time: 3 hours****Max. Marks: 75****Answer any FIVE Questions  
All Questions carry equal marks****\*\*\*\*\***

- 1 a) Draw and explain various avionics subsystems installed in military aircraft. [10]  
b) Explain how space vehicles are different from aircraft. [5]
- 2 a) Briefly compare CRT, LED, LCD technologies used in a cockpit display. [8]  
b) Describe working principle of HeadUpDisplay with suitable diagram. [7]
- 3 a) Explain the audio system configuration in an aircraft. [5]  
b) Draw and explain the block diagram for VHF communication system. [10]
- 4 a) Describe working principle of VOR with suitable diagrams. [10]  
b) Explain the concept of localizer with suitable diagram. [5]
- 5 a) Explain GPS working principles. [10]  
b) Describe how GPS helps in aviation. [5]
- 6 a) Explain the principles of operation of Inertial Navigation. [10]  
b) Explain Navigation over the earth. [5]
- 7 a) Describe the principle and operation of ATC surveillance system. [10]  
b) Briefly explain what is collision avoidance system with relevant diagram. [5]
- 8 a) Explain the concept of Automatic flight control system with suitable diagrams [8]  
b) Describe Mil Std 1553B data bus architecture and working mechanism [7]