Reg. No. \_\_\_\_\_\_\_\_\_\_\_\_



**End Semester Examination – Nov / Dec 2019**

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| **Code :** | **14AE2004** | **Duration :** | **3hrs** |
| **Sub. Name :** | **ELEMENTS OF AVIONICS** | **Max. Marks :** | **100** |

**ANSWER ALL QUESTIONS (5 x 20 = 100 Marks)**

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| **Q. No.** | **Sub Div.** | | **Questions** | **Course**  **Outcome** | **Marks** |
| 1. |  | | Enumerate the core avionics subsystems with a neat sketch. | CO1 | 20 |
| **(OR)** | | | | | |
| 2. | a. | | State the 'Ilities of Avionics System' and explain. | CO1 | 10 |
| b. | | Discuss the needs of avionics in an aircraft system. | CO1 | 10 |
|  |  | |  |  |  |
| 3. | a. | | Mention the words of Mil-Std-1553B and the contents of each bit. | CO2 | 10 |
| b. | | Report your knowledge on Mil-Std-1553B specs, mode codes, components and power hardware. | CO2 | 10 |
| **(OR)** | | | | | |
| 4. | a. | | Classify and explain the first and second generation avionics architecture. | CO2 | 10 |
| b. | | Demonstrate the pave pace and pave pillar architecture. | CO2 | 10 |
|  |  | |  |  |  |
| 5. |  | | Explain in detail about the display which is considered as the major development in the Man-Machine Interaction. | CO2 | 20 |
| **(OR)** | | | | | |
| 6. |  | | Explain the data entry systems between a pilot and the display systems. | CO2 | 20 |
|  |  | |  |  |  |
| 7. | a. | | List out the different helmet mounted display - designing factors. | CO2 | 10 |
|  | b. | | Summarize your knowledge on the tracking systems present in HMD. | CO2 | 10 |
| **(OR)** | | | | | |
| 8. |  | | Explain the working principles of the following display technologies.  i) Shadow Mask CRT  ii) LED  iii) Plasma  iv) Electroluminescent | CO2 | 5  5  5  5 |
|  | | | **Compulsory:** |  |  |
| 9. | |  | Describe the earliest processors invented by man. | CO3 | 20 |