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



**End Semester Examination – Nov/Dec - 2017**

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|  |  |  |  |
| **Code :** | **14EE2020** | **Duration :** | **3hrs** |
| **Sub. Name :** | **AUTOMOTIVE ELECTRONICS** | **Max. marks :** | **100** |

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

|  |  |  |  |  |
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| **Q. No.** | **Sub Div.** | **Questions** | **Course**  **Outcome** | **Marks** |
| 1. |  | Discuss in detail the operation of sensors used for air flow and detonation. How the measurends vary the sensor output signal | CO3 | 20 |
| (OR) | | | | |
| 2. |  | Interpret the influence of changing the air/fuel ratio over exhaust emission. Discuss in detail the sensor used for measuring the pollutant in emission. | CO2 | 20 |
|  |  |  |  |  |
| 3. |  | Develop a system for cranking the engine depending on the torque requirement characteristics. | CO1 | 20 |
| (OR) | | | | |
| 4. |  | Elaborate the operation of the cranking system along with a neat sketch. | CO1 | 20 |
|  |  |  |  |  |
| 5. | a. | Elaborate the various types of solid state ignition system with neat sketches. | CO2 | 15 |
|  | b. | List the demerits of distributor less ignition system. | CO2 | 5 |
| (OR) | | | | |
| 6. | a. | Draw and explain about wind shield wiper system. | CO3 | 10 |
|  | b. | Sketch and discuss on the design and working of a horn. | CO3 | 10 |
|  |  |  |  |  |
| 7. |  | Develop a real time driver information system for identifying vehicle tire pressure. | CO3 | 20 |
| (OR) | | | | |
| 8. | a. | Develop an antilock braking system for avoid drifting of vehicle. | CO3 | 15 |
|  | b. | List some of the included features of Driver Information system. | CO3 | 5 |
|  | |  |  |  |
|  | | **Compulsory:** |  |  |
| 9. | a. | Discuss about the electronic controlled brakes. How these systems improve safety. | CO3 | 15 |
|  | b. | Define Acceleration control. | CO2 | 5 |

ALL THE BEST