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

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

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| **Code :** | **14EE2025** | **Duration :** | **3hrs** |
| **Sub. Name :** | **FUNDAMENTALS OF ELECTRICAL SAFETY** | **Max. Marks :** | **100** |

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

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| **Q. No.** | **Sub Div.** | **Questions** | **Course**  **Outcome** | **Marks** |
| 1. | a. | Describe the misconceptions in Hazardous areas. | CO3 | 10 |
| b. | Briefly discuss the Injury prevention techniques. | CO3 | 10 |
| **(OR)** | | | | |
| 2. | a. | Explain in detail the central commission. | CO3 | 10 |
| b. | Mention the importance and duties of Electricity Board. | CO3 | 10 |
|  |  |  |  |  |
| 3. |  | Explain the EMI / EMC hazards with neat diagram. | CO3 | 20 |
| **(OR)** | | | | |
| 4. |  | Discuss on Cardiopulmonary resuscitation (CPR) procedure to support and maintain breathing and circulation for an adult. | CO1 | 20 |
|  |  |  |  |  |
| 5. | a. | Explain the importance of Circuit Breaker and over load relay. | CO2 | 15 |
| b. | Write short notes on Limit switches. | CO2 | 5 |
| **(OR)** | | | | |
| 6. | a. | Mention the importance of Trip wire. | CO1 | 5 |
| b. | Where are Lightning hazards required? Mention any two. | CO3 | 5 |
| c. | Draw Magnetic balance transformer connected to current transformer. | CO2 | 10 |
|  |  |  |  |  |
| 7. | a. | Describe the TN network and TN-C-S Earthing system with neat diagram. | CO1 | 15 |
| b. | Elaborate on FRLS insulation. | CO2 | 5 |
| **(OR)** | | | | |
| 8. | a. | Outline the hazardous Approach Boundaries with neat sketch. | CO2 | 15 |
| b. | Write the application of Voltage operated earth leakage circuit with neat diagram. | CO2 | 5 |
|  | | **Compulsory:** |  |  |
| 9. | a. | Discuss briefly on the grouping of gases with few examples. | CO3 | 10 |
| b. | Define Barriers and Isolators. | CO2 | 5 |
| c. | Classify Zone 0, Zone 1, Zone 2. | CO1 | 5 |