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

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**End Semester Examination – Nov/Dec - 2018**

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| **Code :** | **15EE2008** | **Duration :** | **3hrs** |
| **Sub. Name :** | **BATTERY TECHNOLOGY FOR RENEWABLE ENERGY** | **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. | What are the battery standards of IEC? | CO1 | 5 |
| b. | Select and explain any one type of battery to be used for the specific renewable energy system with neat sketch. | CO1 | 15 |
| (OR) | | | | |
| 2. | a. | List down the factors that are affecting battery performance. | CO2 | 5 |
| b. | Mention the criteria for selecting batteries for appropriate usage. | CO3 | 15 |
|  |  |  |  |  |
| 3. | a. | How will you charge Primary batteries? | CO2 | 3 |
| b. | Explain different types of Primary Batteries. | CO2 | 17 |
| (OR) | | | | |
| 4. |  | Draw and explain any one type of primary battery with applications. | CO2 | 20 |
|  |  |  |  |  |
| 5. |  | Illustrate solid electrolyte batteries with neat sketch. | CO2 | 20 |
| (OR) | | | | |
| 6. | a. | Improvise the design to lifetime usage of rechargeable batteries. | CO3 | 10 |
| b. | List out any three major characteristics and applications of secondary batteries used for specific renewable energy system. | CO1 | 10 |
|  |  |  |  |  |
| 7. | a. | Classify the different types of Metal/Air batteries with illustration. | CO2 | 15 |
| b. | How do we give ocean power supply? | CO1 | 5 |
| (OR) | | | | |
| 8. |  | Explain any one of the specialized battery system. | CO2 | 20 |
|  | |  |  |  |
|  | | **Compulsory**: |  |  |
| 9. | a. | Design a low wattage fuel cell type of battery to be used for specific renewable energy system. | CO1 | 15 |
| b. | Describe fuel processing and storage technology. | CO3 | 5 |