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



**UNIVERSITY**

(Karunya Institute of Technology & Sciences)

(Declared as Deemed-to-be University under Sec.3 of the UGC Act, 1956)

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

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| **Code :** | **14EE3034** | **Duration :** | **3hrs** |
| **Sub. Name :** | **ELECTRIC VEHICLE BATTERY TECHNOLOGY** | **Max. marks :** | **100** |

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

|  |  |  |  |  |
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| **Q. No.** | **Sub Div.** | **Questions** | **Course**  **Outcome** | **Marks** |
| 1. |  | Draw a neat sketch and explain about battery bonstruction in detail. | CO1 | 20 |
| (OR) | | | | |
| 2. |  | Enumerate and extend different types and characteristics of specialized batteries using a neat table and relevant diagrams. | CO1 | 20 |
|  |  |  |  |  |
| 3. |  | Improvise the design to life time usage of rechargeable batteries. | CO1 | 20 |
| (OR) | | | | |
| 4. |  | Paraphrase anyone type of battery that can be used for the specific renewable energy system. | CO1 | 20 |
|  |  |  |  |  |
| 5. |  | Illustrate the significance of battery storage system modelling and control. | CO2 | 20 |
| (OR) | | | | |
| 6. | a. | Analyze the estimation of battery power availability in electric vehicle technology. | CO2 | 10 |
| b. | What impact will electrical vehicle battery technology make on modern transportation? | CO1 | 10 |
|  |  |  |  |  |
| 7. |  | Describe the control strategy used in a fuel cell electric vehicle. | CO2 | 20 |
| (OR) | | | | |
| 8. | a. | Explain electric battery charging and discharging with a neat graphical representation. | CO2 | 5 |
|  | b. | Summarize the Battery Management System along with neat sketch. | CO3 | 15 |
|  | |  |  |  |
|  | | **Compulsory**: |  |  |
| 9. |  | Differentiate the use of sustainable energy with conventional IC engine vehicles. | CO3 | 20 |

ALL THE BEST