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 – April/May – 2017**

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| **Code :** | **14ME2049** | **Duration :** | **3hrs** |
| **Sub. Name :** | **RENEWABLE ENERGY SOURCES** | **Max. marks :** | **100** |

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

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| Q. No. | Questions | Course  Outcome | Marks |
| 1. | What are the prospects of renewable energy sources in India? Explain. What are the advantages and limitations of renewable energy sources? | CO3 | 20 |
| (OR) | | | |
| 2. | What are the conventional and un-conventional energy sources? Describe briefly. | CO1 | 20 |
| 3. | What are the types of solar radiation measuring instrument? Explain. | CO2 | 20 |
| (OR) | | | |
| 4. | Enumerate the different types of concentrating type solar collectors. Describe a solar collector used in power plant for generation of electrical energy. | CO3 | 20 |
| 5. | Describe the different schemes for wind electric generating systems.Also describe the generator control schemes. | CO3 | 20 |
| (OR) | | | |
| 6. | Describe horizontal axis type aerogenerators. What are the advantages of vertical axis wind mill over horizontal axis wind mill? | CO3 | 20 |
| 7. | Explain the method of ethanol production from sugarcane and wood? | CO3 | 20 |
| (OR) | | | |
| 8. | What is meant by energy plantation? What are its advantages and disadvantages? What are the main plants proposed for energy plantations especially in India? | CO3 | 20 |
|  | **Compulsory**: |  |  |
| 9. | Write a short note on wave energy conversion machines. What are the advantages and limitations of wave energy conversion? | CO3 | 20 |

ALL THE BEST