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 :** | **15EE2024** | **Duration :** | **3hrs** |
| **Sub. Name :** | **DISTRIBUTION SYSTEM PLANNING AND AUTOMATION** | **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. | Discuss the function of automatic cuircuit reclosers. | CO3 | 10 |
| b. | Discuss the operation of automatic line sectionalizers. | CO3 | 10 |
| (OR) | | | | |
| 2. |  | Explain the operation of SCADA with proper block diagram. | CO3 | 20 |
| 3. | a. | Explain the distribution automation with neat flow chart. | CO3 | 10 |
|  | b. | Brief the history of Indian power grid. | CO2 | 10 |
| (OR) | | | | |
| 4. | a. | Study the structural details of radial and loop type feeders elaborately. | CO1 | 15 |
|  | b. | Discuss the factors of selecting substration location. | CO1 | 5 |
| 5. | a. | Explain the technique to control the regulation through alternator. | CO2 | 5 |
|  | b. | Explain the insulation coordination among substation equipments. | CO2 | 15 |
| (OR) | | | | |
| 6. | a. | A diesel station supplies the following loads to various consumers:  Industrial consumer =1500 KW  Commercial establishment=750 KW  Domestic power =100 KW  Domestic light=450 KW  If the maximum demand of the station is 2500 KW and generated per year is 4500000, determine (i) diversity factor (ii) annual load factor | CO1 | 8 |
|  | b. | Give the data acquisition concept in SCADA system. | CO3 | 12 |
| 7. | a. | With relevant diagram explain radial and loop type primary feeders detail. | CO1 | 20 |
| (OR) | | | | |
| 8. |  | Study the future nature of distribution system planning in detail. | CO3 | 20 |
|  | | **Compulsory:** |  |  |
| 9. |  | Reproduce the functions and attributes of Energy Management system elaborately. | CO3 | 20 |

ALL THE BEST