Roll No. | | | | | | | | | | | | | **Total No. of Pages : 01**

Total No. of Questions : 08

M.Tech.(EE) (Sem.–1)

ELECTRIC POWER DISTRIBUTION SYSTEM

Subject Code : MTEE-104B-18

M.Code : 75222

Date of Examination : 25-01-2023

Time : 3 Hrs. **Max. Marks : 60**

INSTRUCTIONS TO CANDIDATES :

1. **Attempt any FIVE questions out of EIGHT questions.**
2. **Each question carries TWELVE marks.**
3. **Unless stated otherwise the symbols have their usual meanings in context with subject. Assume suitably and state, additional data required, if any.**

1. Define distribution automation system. With the help of schematic diagram explain its salient features. Discuss its merits.

2. a) Classify different types of power loads. Discuss its modelling.

   b) Define RTU. Explain various objectives of energy management system.

3. a) Explain automatic meter reading system with the help of block diagram.

   b) Write short note on GIS system.

4. Explain optimization. Give its significance in context to the power system problems. Enumerate some of the power system optimization problems. Name the techniques to solve these problems. Explain mathematical formulation of power system problem for optimization with at least one objective and different system constraints.

5. What is the significance of load forecasting? Explain any two techniques of load forecasting.

6. Explain the network reconfiguration of distribution system with the help of suitable diagram. Formulate optimal switching placement problem for radial distribution system with objective function and its associated constraints.

7. What is SCADA? Explain different configuration of SCADA. Give the advantages of distribution through SCADA.

8. **Discuss about the following :**

   a) Regression analysis and correlation

   b) Energy efficiency in electrical distribution and monitoring.

NOTE : Disclosure of Identity by writing Mobile No. or Making of passing request on any page of Answer Sheet will lead to UMC against the Student.