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Total No. of Pages : 01

Total No. of Questions : 08

**M.Tech.(EE)EI-II(2018 Batch) (Sem.-1)**  
**ELECTRIC POWER DISTRIBUTION SYSTEM**  
**Subject Code : MTEE-104B-18**  
**M.Code : 75222**

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.
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1. Define Distribution Management system with the help of schematic diagram. Explain its sub systems. Discuss its merits and demerits.
  2. a) Briefly Explain different AI techniques applies to distribution automation.  
b) Define Bellman's optimality principle. Name the type of applications where this principle is more relevant.
  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. a) What are the different types of power loads? Explain any three in detail.  
b) Define RTU. Explain various objectives of energy management system.
  6. Explain the network reconfiguration of distribution system with the help of suitable diagram. Formulate optimal switching placement problem for radial distribution system indicating 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) Communication system in DMS
    - b) Limitation of automated distribution system in real time.

**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.**