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Total No. of Pages: 01

Total No. of Questions: 08

M.Tech. (Power System) (Sem. – 2)

DISTRIBUTED GENERATION

Subject Code: MTPS-204B-18

M Code: 76139

Date of Examination : 03-01-2023

Time: 3 Hrs.

Max. Marks: 60

INSTRUCTIONS TO CANDIDATES:

1. Attempt any FIVE questions out of EIGHT questions.
2. Each question carries TWELVE marks.

1. Explain the need of distributed generation in current scenario. Also compare distributed generation with conventional utility grid with features.
2. What are the reasons behind the widespread use of power electronic converters? Discuss the different topologies of inverters in grid connected mode.
3. Why there is a need of DGs market? Explain the economic and control aspects of DGs market facts.
4. a) What do you mean by islanding of micro grid? List the different islanding scenarios in micro grid.
b) What is load shaping? What are the advantages?
5. What is feeder automation? List and explain the different components of feeder automation.
6. Why power quality is needed in distributed generation? Describe the different power quality issues associated with the distributed generation.
7. What are the different transients associated with the micro grids? How micro grid can be protected?
8. Explain with neat sketches the basic architecture of smart substation. Enumerate various advantages of smart substation.

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