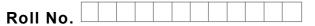
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M.Tech. (EE) (2018 Batch) (Sem.-2) DISTRIBUTED GENERATION Subject Code : MTEE-204A-18 M.Code : 76106

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. Justify why distribution generation is important in current power system. What is need of integration of distribution generation? How distribution generation is different from conventional generation?
 - 2. What is a power converter? Give the reasons leading to the widespread use of power electronic converters. Discuss the different topologies of inverters in grid connected mode.
 - 3. a) What are the different voltage control techniques associated with distributed generation?
 - b) Explain with an example, what is reactive power control?
 - 4. What is protecting relaying system? What is the different impact of DGs on dynamic stability of the existing distribution system?
 - 5. What is power quality? What are the different power qualities issues associated with the distribution generation? Explain harmonics with the help of suitable example.
 - 6. What is a micro grid? Explain the difference between a conventional power plant and micro grid.
 - 7. Explain with neat and clean diagram typical micro grid configuration. Explain the functions of central controller in micro grid in following modes.
 - a) Grid connected mode.
 - b) Islanded mode.
 - 8. What are the different transients associated with the microgrids? How microgrids can be protected?

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.

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