

Roll No.

23298

**M. Tech. 3rd Sem. (Electrical Engg.)
Specialization : Electrical Power Systems
(Elective-IV) Examination – December, 2013**

DEMAND SIDE ENERGY MANAGEMENT

Paper : MTEPS-302(iii)

Time : Three hours]

[Maximum Marks : 100

Before answering the questions, candidates should ensure that they have been supplied the correct and complete question paper. No complaint in this regard, will be entertained after examination.

Note : Attempt any *five* questions. All questions carry equal marks.

1. What do mean by Energy Audit and explain its applications of energy management.
2. Define Energy Economics and explain different methods used in energy economic analysis for energy management.
3. What do you mean Energy conservation and explain energy conservation in Industries Power factor improvement.

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4. Explain the following.
 - (i) Cost effectiveness-performance characteristics of EEMs.
 - (ii) Life cycle-direct savings of EEMs.
5. What do you meant by Electric Lighting and explain the task lighting requirements. lighting levels-system modifications non illumination.
6. Define Light sources and explain its characteristics of families of lamps-lamp substitution in existing system.
7. What do you mean by Insulation-Cooling load-Electric water heating systems and explain the energy conservation methods.
8. Define the following :
 - (a) Application of compressed air energy storage (CAES).
 - (b) Storage batteries-superconducting magnetic energy storage (SMES).