

23455

**M.Tech. 3rd Semester**  
**Examination, December-2018**  
**ELECTRICAL POWER SYSTEM**  
**Paper- MTEPS - 302 (iii)**  
**Demand - Side Energy Management**

*Time allowed : 3 hours]*

*[Maximum marks : 100*

*Note: Attempt any five out of eight questions. Each question carry equal marks.*

1. Define following
  - (a) Energy Audit
  - (b) Cost index
  - (c) Energy index
  - (d) Sankey diagram
  - (e) Preliminary Energy audit
2. Define Energy Economics and explain cost benefit risk analysis, Reducing balance depreciation and Net Present value method in detail.
3. Discuss the concept of Energy conservation. Also explain energy conservation in utilities by improving load factor.
4. Write technical note on
  - (a) Efficiency factor.
  - (b) Performance characteristics of EEM

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[P.T.O.]

5. Explain following:
  - (a) Illumination requirement.
  - (b) Reflectances-space geometry.
6.
  - (a) How conservation of energy is done in lightening?
  - (b) What are White Light LED and conducting polymers?
7. Discuss Insulation- Cooling Load-Electric water heating systems and explain the energy conservation techniques.
8. Explain the following
  - (a) CAES
  - (b) SMES

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