

Roll No. ....

**23455**

**M. Tech. 3rd Sem. (Electrical  
Power System) Examination-  
December, 2016**

**DEMAND-SIDE ENERGY MANAGEMENT**

**Paper : MTEPS-302 (iii)**

**Time : 3 hours**

**Max. 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 the examination.

**Note:** Student will have to attempt **five** question in all.

1. What do you mean by Energy Audit ?  
Explain its type, need and concept in detail.  
(20)

2. Write short note on :

- (a) Profitability index or benefit cost ratio (10)
- (b) Straight line depreciation (10)
3. (a) Explain Energy conservation in utilities by improving load factor. (10)
- (b) Write short note on Energy and Load Management devices. (10)
4. Write short note on:
- (a) Efficiency evaluation factor (10)
- (b) Economics of efficient electric motors (EEMs) (10)
5. (a) Write short note on Energy Management program. (10)

- (b) What are the different factors which affect the illumination level in a building? (10)
6. (a) What is the criterion of selection of a lamp for a new system? Explain it. (10)
- (b) Write short note on white light LED and conducting polymers. (10)
7. Write short note on:
- (a) Energy Conservation Methods (10)
- (b) Air-Conditioning (HVAC) System (10)
8. Write short note on:
- (a) Combined cycle cogeneration (10)
- (b) Superconducting magnetic energy storage (10)