

Printed Pages—2

EEE054

(Following Paper ID and Roll No. to be filled in your Answer Book)

PAPER ID : 2901 Roll No. 

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**B.Tech.**

(SEM. VIII) EVEN THEORY EXAMINATION 2012-13  
**ENERGY EFFICIENCY & CONSERVATION**

Time : 3 Hours

Total Marks : 100

**Note :- Attempt all questions.**

1. Attempt any **two** of the following : (10×2=20)
  - (a) Differentiate between the load pattern of small scale and large scale industries. What measures are taken to conserve energy in a large scale industry ?
  - (b) Enumerate several measures of conserving energy in a thermal generation plant. Discuss one of them in detail.
  - (c) What do you know about legislation related to energy conservation in India ?
  
2. Attempt any **two** of the following : (15×2=30)
  - (a) Briefly describe the concept of Demand Side Management.
  - (b) Name various strategies used for Demand Side Management and discuss any one of them in detail.
  - (c) Write a brief note on the advance technologies available worldwide for demand side management. Can they be applied in India with special reference to their acceptance by consumers ?

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3. Attempt any **two** of the following : **(10×2=20)**
- (a) Discuss about improvement of power factor.
  - (b) How is a capacitor bank designed in terms of units and ratings ?
  - (c) Discuss about the application of switched capacitors.
4. Attempt any **three** of the following : **(10×3=30)**
- (a) How is the UPS selection for a particular use ?
  - (b) Discuss the special features of Indian Electricity Act.
  - (c) What do you understand by energy efficient motors ?
  - (d) How would you incorporate energy efficient features in lighting loads ?
  - (e) How is energy saved by load scheduling ?
  - (f) Discuss about the energy efficient way of controlling the speed of motor.