

Printed Pages—2

EEE054

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

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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 ?

EEE054/DPC-48171

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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.