

M. Tech.-III (Electrical -Power System) (CBCS – 2015 Course) :
WINTER - 2018

SUBJECT- SELF STUDY PAPER I – ENERGY CONSERVATION AND AUDIT

Day: Saturday
Date: 08/12/2018

W-2018-3286

Time: 11.00 AM TO 02.00 PM
Max. Marks: 60

N.B.:

- 1) All questions are **COMPULSORY**.
- 2) Figures to the right indicate **FULL** marks.
- 3) Answers to the two sections should be written in **SEPARATE** answer books.
- 4) Assume suitable data if necessary.

SECTION – I

Q.1 Describe in detail various types of Energy Audits. (10)

OR

Q.1 Write a detailed note on Energy Audit Report. (10)

Q.2 List the various Data Analysis Methods used for Energy Audit. Discuss any one in detail. (10)

OR

Explain the following:

Q.2 a) Specific Energy Consumption (10)
b) Bench Marking

Write Short Notes on:

Q.3 a) Internal Rate Return Method (10)
b) Cash Flow Diagram and Activity Chart

OR

Write Short Notes on:

Q.3 a) Internal Rate Return Method (10)
b) Role of Energy Service Companies

SECTION – II

Q.4 Describe the energy conservation opportunities in Transmission and Distribution Sector of India. (10)

OR

Q.4 Describe in detail the energy conservation opportunities in HVAC Systems. (10)

Q.5 List the various energy intensive industries. Give suitable examples. (10)

OR

Q.5 Discuss the procedure of Energy Audit in a typical Indian Farm. (10)

Write Short Notes on:

Q.6 a) Transmission and Distribution Losses b) Variable Speed Drives (10)

OR

Write Short Notes on:

Q.6 a) Electronic Ballast for Lighting b) Power Factor Improvements (10)