



CBCS SCHEME

18EE754

Seventh Semester B.E. Degree Examination, June/July 2025 Electrical Energy Conservation and Auditing

Time: 3 hrs.

Max. Marks: 100

Note: Answer any FIVE full questions, choosing ONE full question from each module.

Module-1

- 1 a. Explain the following terms with three example for each.
i) Primary and secondary energy sources
ii) Commercial and Non Commercial energy sources
iii) Renewable and Non Renewable energy sources. (10 Marks)
b. Explain about energy conservation and its importance. (10 Marks)

OR

- 2 a. Explain energy needs of a growing economy. (10 Marks)
b. Explain the ill effects of energy usage on environment, mentioning major air pollutants and its effects. (10 Marks)

Module-2

- 3 a. Explain step by step approach for maximum demand control. (10 Marks)
b. Explain efficient operation of transformers and energy efficient motors. (10 Marks)

OR

- 4 a. Explain energy efficient lighting systems and its measures. (10 Marks)
b. Elaborate on energy conservation opportunities in fans and pumps. (10 Marks)

Module-3

- 5 a. Explain about 10 step methodology for detailed audit. (10 Marks)
b. Explain the need for energy audit and types of energy audit. (10 Marks)

OR

- 6 a. Explain the key instruments for energy audit. (10 Marks)
b. Explain energy audit report format in detail. (10 Marks)

Module-4

- 7 a. Explain the distinguishing features of electricity as commodity. (10 Marks)
b. What is ABT? What are its effects? (10 Marks)

OR

- 8 a. Explain the four pillars of market design. (10 Marks)
b. Explain in brief about framework of Indian power sector. (10 Marks)

Module-5

- 9 a. Explain the energy saving measures in new buildings. (10 Marks)
b. Explain Load management as DSM strategy. (10 Marks)

OR

- 10 a. Explain the General Energy saving tips applicable to new as well as existing buildings. (10 Marks)
b. Explain DSM planning and implementation. (10 Marks)

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Important Note : 1. On completing your answers, compulsorily draw diagonal cross lines on the remaining blank pages.
2. Any revealing of identification, appeal to evaluator and /or equations written eg, 42+8 = 50, will be treated as malpractice.