

CBCS SCHEME

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21EE755

Seventh Semester B.E./B.Tech. Degree Examination, Dec.2024/Jan.2025 Energy Conservation and Audit

Time: 3 hrs.

Max. Marks: 100

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

Module-1

- 1 a. Explain in detail about primary and secondary energy sources with examples. (10 Marks)
- b. Write a short note on long term energy scenario for India. (10 Marks)

OR

- 2 a. Explain the salient features of Energy Conservation Act 2001. (10 Marks)
- b. Explain the energy conservation and its importance. (10 Marks)

Module-2

- 3 a. Explain the following:
(i) Soft starters (ii) Maximum demand controllers (10 Marks)
- b. Explain energy efficient lighting system and its measures. (10 Marks)

OR

- 4 a. Explain briefly about automatic power factor controller. (10 Marks)
- b. Explain flow control strategies and energy conservation in pumps. (10 Marks)

Module-3

- 5 a. Explain ten step methodologies for detailed Energy Audit. (10 Marks)
- b. Explain the different types of measuring equipments used in energy audit. (10 Marks)

OR

- 6 a. Define energy audit and its importance. Mention the advantages of the same. (10 Marks)
- b. Explain energy use profile and audits required for constructing the energy use profile. (10 Marks)

Module-4

- 7 a. Explain the different types of distinguish features of electricity as a commodity. (10 Marks)
- b. Explain four pillars of market design. (10 Marks)

OR

- 8 a. Distinguish between Existing Tariff and Availability Based Tariff (ABT). (08 Marks)
- b. Explain the India Power Sector Model with a neat diagram. (12 Marks)

Module-5

- 9 a. Explain Water Audit and its methodology. (10 Marks)
- b. Explain the evolution of DSM concept and its scope. (10 Marks)

OR

- 10 a. Explain energy saving tips applicable to new and existing buildings. (10 Marks)
- b. Explain the tariff options for DSM. (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.