Register No.:

799

April 2023

Time – Three hours
(Maximum Marks: 100)

N.B. 1. Answer all questions under Part-A. Each question carries 3 marks.
2. Answer all the questions either (A) or (B) in Part-B. Each question carries 14 marks.

PART – A

1. What is meant by Primary Energy? Give an example.
2. Write any three principles of Energy Conservation Techniques.
3. List any three points which are needed for energy conservation in induction motor.
4. State the advantages of soft starter.
5. Mention any three scenarios of Transmission and Distribution losses.
6. Write a short note on energy efficient luminaries.
7. What is simple payback period?
8. Which are the instruments used to measure pressure?
9. What is meant by topping cycle of co-generation system?
10. List the types of tariff structure.

[Turn over.....

PART – B

11. (a) Narrate an essay on Energy Conservation Approaches.

(Or)

(b) What is the significance of Star Labelling? Explain its benefits.

12. (a) Narrate the points on "Reducing under loading" which affects the motor efficiency.

(Or)

(b) Explain the following energy conservation methods of electrical motor: (i) Rewinding of motor (ii) Energy efficient motor.

13. (a) Discuss in detail about cascade efficiency and Aggregated Technical and Commercial (ATC) Losses.

(Or)

(b) Explain the working principle and operation of APFC.

14. (a) Explain how energy audit is carried out in HVAC system and water heating system.

(Or)

(b) Explain in detail about the instruments used in monitoring energy and energy savings.

15. (a) Mention the classification of co-generation systems depending on sequence of energy use with necessary sketches.

(Or)

(b) Explain in detail about the applications of tariff system to reduce the electricity bills in various aspects.
