ADVANCED CERTIFICATE IN POWER DISTRIBUTION MANAGEMENT (ACPDM)

Term-End Examination

December, 2022

BEE-002 : ENERGY MANAGEMENT AND IT APPLICATIONS

Time: 3 Hours Maximum Marks: 100

- Note: (i) The question paper has three Parts:

 Part I, Part II and Part III.
 - (ii) Answer the questions as indicated in each Part.
 - (iii) All questions should be answered in English only.

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Part—I

- 1. Give the full forms of the following abbreviations: $10\times1=10$
 - (a) ERS
 - (b) AMR
 - (c) DTR
 - (d) ESCO
 - (e) SCADA
 - (f) BEE
 - (g) AT & C
 - (h) CNG
 - (i) CFL
 - (j) ERC

Part—II

Note: Attempt any *ten* of the following questions.

 $10 \times 7 = 70$

- 2. Explain the earthing requirements of equipments in the substation.
- 3. Discuss the benefits of DSM for power utilities and the society.

- 4. Explain the major causes for fire outbreaks in a power utility. What techniques can be used for handling and preventing such fires?
- 5. Describe the main features of LEAP.
- 6. What immediate, medium and long-term strategies can be adopted for meeting the goal of clean energy for all?
- 7. Mention the objectives of energy auditing for utility.
- 8. Discuss the changes being brought about by the use of IT in the working of electrical business.
- 9. What is global warming? How is our energy usage influencing it?
- 10. What is spot billing? Explain its advantages over traditional billing.
- 11. What is standards and labelling program?

 Explain how can it help in effective DSM.
- 12. What is ERP? Discuss the benefits of using ERP in a power distribution utility.

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Part—III

Note: Attempt any *two* of the following questions.

 $2 \times 10 = 20$

- 13. Describe the first aid measures to help the victims of:
 - (a) Electric shock
 - (b) Burns
 - (c) Heat stroke
- 14. Describe the benefits of the Geographic Information System (GIS) for managing the power distribution system.
- 15. What is SCADA? Discuss its usefulness for improving the operation of a power distribution utility.