ADVANCED CERTIFICATE IN POWER DISTRIBUTION MANAGEMENT (ACPDM)

Term-End Examination

December, 2024

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.

Part—I

- 1. Give full forms of the following abbreviations: $10 \times 1 = 10$
 - (a) RTU

- (b) ERS
- (c) ERC
- (d) AMR
- (e) ERP
- (f) BEE
- (g) DSM
- (h) TOD
- (i) ABT
- (j) MIS

Part—II

- 2. Attempt any ten of the following questions: $10 \times 7 = 70$
 - (a) What is global warming? How is our energy wage influencing it?
 - (b) Explain the earthing requirements in a substation.
 - (c) Discuss the measures taken for preventing and handling cases of electric shock.
 - (d) What is energy efficiency? What are the benefits of improved energy efficiency?
 - (e) Mention the objectives of energy auditing.
 - (f) What is ERP ? Discuss the benefits of using ERP in a power distribution utility.

- (g) Discuss the changes being brought about by the use of IT in the working of electrical businesses.
- (h) What is 'LEAP' ? Describe the main features of LEAP.
- (i) Explain the ESCO route to DSM.
- (j) Differentiate between step potential and touch potential.
- (k) What is spot billing? Explain its advantages over traditional billing.

Part—III

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

 $2 \times 10 = 20$

- (a) Explain the major causes for *five* outbreaks in a power utility. What techniques can be used for handling and preventing such five causes?
- (b) What is SCADA? Discuss its usefulness for improving the operation of a power distribution utility.
- (c) List various steps in the process of meter reading by Hand Held Devices. Give a brief description of each step.

