

**ADVANCED CERTIFICATE IN POWER
DISTRIBUTION MANAGEMENT**

Term-End Examination

June, 2022

**BEE-002 : ENERGY MANAGEMENT AND IT
APPLICATIONS**

Time : 3 hours

Maximum Marks : 100

Note : *The question paper has **three** parts : Part I, Part II and Part III. Answer the questions as indicated in each part. All questions should be answered in English only.*

PART I

1. Give full forms of the following abbreviations :

10×1=10

- (a) SCADA
- (b) GIS
- (c) GUI
- (d) GPS
- (e) LAN
- (f) T&D
- (g) HVDS
- (h) AMR
- (i) GSM
- (j) ATM

PART II

Attempt any **ten** questions :

10×7=70

2. Explain the natural and enhanced Greenhouse Effect.
3. What is the energy resource base of the power plants that supply electricity to the domestic sector ?
4. What is energy accounting ?
5. What are the benefits of an energy audit for a power distribution utility ?
6. How can standards and labelling programme help in an effective DSM ?
7. What measures should the power utility take to address the problems faced in the implementation of DSM in the industrial sector ?
8. Explain the ESCO route to DSM.
9. Describe the safety precautions related to the earthing of various electrical installations.
10. Describe the first aid measures to help a victim of the following :
 - (a) Electric Shock
 - (b) Burns
11. Describe the disaster management plan for a power utility.
12. Explain how IT can help in reducing AT&C losses and improving the efficiency of power distribution.

PART III

Attempt any **two** questions :

$2 \times 10 = 20$

13. For what purposes does a power distribution utility use the GIS ?
 14. Explain the software requirements for AMR. What kind of data can be acquired through AMR ?
 15. Explain the practices that can improve the accuracy and reliability of energy accounting.
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