

**ADVANCED CERTIFICATE IN POWER
DISTRIBUTION MANAGEMENT**

Term-End Examination

June, 2021

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

Time : 3 hours

Maximum Marks : 100

Note : *This question paper has **two** parts : Part I and Part II. Answer the questions as indicated in each part.*

PART I

*Attempt any **ten** questions.*

10×3=30

1. What is Global Warming ?
2. Describe the aim of energy security for a nation.
3. What is the purpose of Energy Accounting ?
4. Explain the concept of Energy Audit.
5. Mention the different ways by which Demand Side Management (DSM) can be achieved.
6. State the objectives of Energy Conservation Building Codes.

- 7.** Discuss the reasons why DSM has not been taken up actively by utilities in the domestic and commercial sector.
- 8.** Discuss electrical safety procedures for working with voltages up to 440 V.
- 9.** Explain the principle of fire-fighting.
- 10.** List the key areas of Information Technology (IT) intervention in the distribution business.
- 11.** What is Enterprise Resource Planning (ERP) ?
- 12.** What are the most popularly used techniques and methodologies of meter reading in India ?

PART II

Attempt any **ten** questions.

10×7=70

13. Write down the causes of air pollution stemming from energy production and its end use.
14. Assess the suitability for adopting renewable energy resources as an option for attaining energy security.
15. What is the importance of metering, billing and collections in energy accounting ?
16. Outline various steps in the methodology for conducting a detailed energy audit for an industry.
17. Discuss the benefit of DSM for power utilities and consumers.
18. List the various energy efficiency options for the customers for reducing energy demand.
19. State the Indian Electricity Rules related to the (a) reporting of fatal accidents, and (b) general condition relating to supply and use of energy.
20. Explain the earthing requirements in a substation.
21. Discuss the measures that should be taken for preventing and handling cases of electric shock.

- 22.** Describe responsibilities of the disaster management groups at the Central, Regional and State levels.
 - 23.** Explain how Information Technology (IT) can help in reducing AT&C losses and improving the efficiency of power distribution.
 - 24.** What are the benefits of Information Technology (IT) use for asset management ?
 - 25.** List the different types of data required for mapping the electrical distribution network using Geographical Information System (GIS).
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