

**ADVANCED CERTIFICATE IN POWER
DISTRIBUTION MANAGEMENT**

Term-End Examination

00550

June, 2016

BEE-001 : POWER DISTRIBUTION SECTOR

Time : 3 hours

Maximum Marks : 100

*Note : This paper has three sections. Attempt **all** sections.
Answer the questions in English language only.*

SECTION A

*Attempt **all** questions.*

1. Fill in the blanks. *10×1=10*
- (a) In relation to the type of conductors, the abbreviation 'AAAC' stands for _____ .
- (b) As per the time schedule specified in the _____ Code, the load scheduling is done one day before the day ahead.
- (c) The two types of distribution transformers are 'Core' type and _____ type.

- (d) As per the Electricity Act, 2003, _____ has notified the regulations on meters of electricity in the year 2006.
- (e) _____ test is recommended to ensure breakdown strength of transformer oil.
- (f) The country is divided into _____ number of regional grids and _____ of them have already been interconnected.
- (g) Most of the power generated in the country comes from _____ power stations. (*Hint* : Coal fired, Gas fired, Hydro, Nuclear, Wind, Solar)
- (h) _____ power stations are generally used to meet the peak load in the country.
- (i) Bureau of Energy Efficiency has been set up under the _____. (Name the Act and the year)
- (j) Central Electricity Regulatory Commission (CERC), State Electricity Regulatory Commissions (SERCs) and _____ have been set up in the electricity sector under the Electricity Act, 2003 to deal with the regulatory issues and to sort out disputes.

SECTION B

Attempt *all* questions. All questions carry equal marks. 10×3=30

2. How many special courts can be constituted in a State and for what purpose are they constituted ?
3. For what purpose is the Central Energy Conservation Fund set up and where is it set up ?
4. Explain the term Open Access.
5. How are T&D losses defined ?
6. Discuss the lightning arrestors used in distribution network.
7. Classify the transformers according to the type of core used.
8. What are the factors which influence the section of a cable ?
9. Define the term SAIFI. What is it used for ?
10. A Trivector meter consists of three different elements. Identify the elements.
11. Describe the indicators used in performance benchmarking.

SECTION C

Attempt any ten questions. All questions carry equal marks. *10×6=60*

12. What factors contribute to T&D losses in urban areas ?
13. Differentiate between preventive and breakdown maintenance.
14. Discuss the role of CERC in tariff setting.
15. What are the measures a distribution utility can take to improve collection ?
16. Describe the method of testing of transformer insulation oil.
17. What are the various types of distribution network systems ? Describe briefly.
18. Explain the live line maintenance technique.
19. What are the advantages and disadvantages of Benchmarking ?
20. Explain the importance of Energy Conservation Awards. To whom are these awards given ?

- 21. Explain the importance of key performance indicators for a utility.**
 - 22. Discuss the role of data warehousing and data mining in the CRM framework.**
 - 23. Briefly explain the features of meters used for HT metering.**
 - 24. How would the National Tariff Policy help in realising the aims and objectives of Electricity Act, 2003 ?**
 - 25. What are the measures which can be adopted by a utility to reduce distribution transformers' failure rate ?**
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