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BEE-001

**ADVANCED CERTIFICATE IN POWER
DISTRIBUTION MANAGEMENT**

Term-End Examination

December, 2015

BEE-001 : POWER DISTRIBUTION SECTOR

Time : 3 hours

Maximum Marks : 100

Note : This question paper has three sections. Answer the questions as indicated in each section.

SECTION A

Attempt all questions in this section. All questions carry equal marks.

1. Fill in the blanks.

10×1=10

- (a) Indian Government is importing Hydel Power from the following two countries : _____ and _____ .
- (b) The Government of India has set a target to provide power to all by the year _____ .
- (c) The Government of India is trying to improve the distribution sector by employing _____ scheme.

- (d) Unbundling becomes a mandatory feature under the _____ (Name of the Act and the year).
- (e) Generation tariff is decided by the _____ Regulatory Commission.
- (f) The scheme presently run by the Government of India for Rural Electrification is _____ .
- (g) _____ can hear appeals or original petitions against the orders of the Adjudicating Officer or the Central Electricity Regulatory Commission or State Electricity Regulatory Commission or Joint Commission constituted under the Act of 2003.
- (h) The three types of Concrete Poles used for the support of overhead distribution lines are _____ .
- (i) In underground power cables, EHV cables are designed for more than _____ kV.
- (j) _____ technique and tools are required for maintaining live lines.

SECTION B

Attempt any ten questions. All questions carry equal marks.

10×3=30

2. What factors contribute to T&D losses in rural areas ?
3. What are the acceptable levels of losses in the Transmission and Distribution systems in India ?
4. Distinguish between Current and Voltage Transformers.
5. Classify different types of Benchmarking.
6. Name the different Central Electricity Acts since 1910.
7. Where does your utility stand in terms of T&D and AT&C losses ?
8. Define the Clean Development Mechanism (CDM).
9. What is load balancing ?
10. What are the activities involved in the distribution system planning ?
11. Explain the APDRP scheme for distribution reforms.
12. What are the advantages of Benchmarking ?
13. What is the importance of power quality ?

SECTION C

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

14. Outline the aims and objectives of the Electricity Act, 2003. In what sense is it different from the Electricity Acts preceding it ?
15. How does the NEP help in realising the aims and objectives of the Electricity Act, 2003 ?
16. Outline the impediments, if any, in carrying out reforms in the power distribution sector.
17. What configurations of feeder networks can be used in a distribution system ?
18. Explain the impact of HT/LT ratio on losses and voltage.
19. Discuss the measures to avoid DTR failure at the O&M level.
20. What do you understand by load scheduling and unscheduled interchange ?
21. What equipments are required for the construction of an overhead distribution line ?

- 22.** What do you understand by Customer Relationship Management (CRM) ? How can CRM be applied in organisations in the power distribution sector ?
 - 23.** Explain the KPIs for supply availability and reliability.
 - 24.** Elaborate your understanding about voltage quality standards.
 - 25.** What factors contribute to high technical losses in the power distribution sector ?
 - 26.** Describe the measures that can be taken to reduce technical losses in the power distribution sector.
 - 27.** How can you improve the billing and collection in a distribution utility ? Explain with examples.
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