

**ADVANCED CERTIFICATE IN POWER  
DISTRIBUTION MANAGEMENT**

**Term-End Examination**  
**June, 2012**

**01249**

**BEE-001 : POWER DISTRIBUTION SECTOR**

*Time : 3 hours*

*Maximum Marks : 100*

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*Note : The question paper has four sections. Answer the question as indicated in each section.*

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**SECTION-A**

Answer all questions in this section : **10x1=10**

Saved, Cross subsidies, generated, voltage, stepped up, power, KVA, Aluminium, sub-transmission, DISCOMS, steel, Bench marking, increase, copper, dissipated.

1. The voltage is \_\_\_\_\_ for transmission.
2. Poor power quality is indicated by sharp variation of \_\_\_\_\_.
3. Electricity \_\_\_\_\_ mean Electricity \_\_\_\_\_.
4. Regulatory commission have to develop the \_\_\_\_\_ market.
5. Thrust areas of NTP (National Tariff policy) is to progressive reduction in \_\_\_\_\_.

6. \_\_\_\_\_ of performance will improve the performance of electric utility.
7. 33 KV can be treated as \_\_\_\_\_ voltage.
8. ACSR are \_\_\_\_\_ conductor \_\_\_\_\_ reinforced.
9. Transformers are rated in \_\_\_\_\_.
10. \_\_\_\_\_ takes measure such as bifurcation of feeder.

## SECTION - B

Attempt any ten question

10x2=20

1. Explain APDRP scheme launched by Central Government ?
2. What are the different types of network in distribution system ?
3. What are the new technologies for metering of energy ?
4. What are the basic steps in load forecasting ?
5. Why cost benefit analysis is necessary before any project / scheme is undertaken ?
6. Describe two types of maintenance in Electrical system ?
7. Explain the key performance indicators for supply availability and reliability.
8. Explain in brief about Load Dispatching.

9. Why Surge Arresters are used in distribution system ?
10. What are the earthing arrangement meant for distribution system ?
11. What are aggregate technical and commercial losses ?

## SECTION - C

Answer *any ten* questions :

10x5=50

1. What are the differences between Power transformer and Distribution transformer ?
2. How are instrument transformers used for protective relaying ?
3. What are the main equipments used in 11 KV and LT distribution systems ?
4. What are the test to be performed on transformer ?
5. What are the features of Bench - marking of performance ?
6. What are the factors considered for penalty scheme of SERC ?
7. What is the difference between Transmission and Distribution loss and Aggregate Technical and Commercial losses ?
8. What are the effects of low power factor ?
9. What is HVDS ? (High voltage distribution system) and why they are preferred ?
10. What are the consideration while installing Electricity meter ?
11. What are the measures to avoid DTR failure at OSM level ?

## SECTION - D

Answer *any two* :

2x10=20

1. Explain load scheduling, Unscheduled Interchanges and load balancing.
  2. What are the different types of Electrical Insulators ?
  3. Analyse the reason for transformer failure in any distribution utility.
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