

**ADVANCED CERTIFICATE IN POWER  
DISTRIBUTION MANAGEMENT**

**Term-End Examination**

**00145**

**December, 2014**

**BEE-001 : POWER DISTRIBUTION SECTOR**

*Time : 3 hours*

*Maximum Marks : 100*

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

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**SECTION A**

*Attempt **all** questions :*

1. Fill in the blanks : *10×1=10*
- (a) Trading of electricity is allowed between distribution licensees and \_\_\_\_\_ .
- (b) For step-down transformers, the secondary winding has \_\_\_\_\_ number of turns than the primary.
- (c) Normally \_\_\_\_\_ \_\_\_\_\_ circulation is done for drying out distribution transformer.

- (d) The load despatch centre is primarily responsible for management of the \_\_\_\_\_ .
- (e) \_\_\_\_\_ can be different at different points of the grid.
- (f) Distribution transformers are connected to consumers through \_\_\_\_\_ feeders.
- (g) Grid management is done by \_\_\_\_\_ .
- (h) UI is a component of \_\_\_\_\_ .
- (i) \_\_\_\_\_ based maintenance predicts potential failure of equipments.
- (j) Power Distribution Engineer's responsibility is to manage the operating system at an optimum \_\_\_\_\_ .

## SECTION B

*Attempt all questions :*

*10×3=30*

2. What are the roles of battery and battery charger in a substation ?
3. Define benchmarking.
4. What do you understand by a grid ? Explain in brief.
5. Write names of the types of conductors used for distribution of electrical power.
6. Why is reactive power control required ?
7. On what factors is decision on drying out of transformers taken ?
8. What do you mean by open access ?
9. What is the role of CEA ?
10. What do you understand by multi-year tariff ?
11. What are the parameters of quality of power supply ?

## SECTION C

*Attempt any ten questions :*

*10×6=60*

12. What measures can be taken to address the challenges before power sector ?
13. How can automatic meter reading be achieved ?
14. Why are transmission networks of high voltage lines required between generation and distribution network ?
15. On what factors is the size of a transformer decided ?
16. How is scheduling of load carried out ?
17. What are the main factors for technical losses ?
18. Why are capacitors provided in distribution system and where can it be put ?
19. What does SEM do ?
20. Distinguish between Power Transformer and Distribution Transformer.
21. Define a 'feeder'.
22. Distinguish between preventive maintenance and breakdown maintenance.
23. What is a Trivector meter ?
24. Mention the roles of BEE.
25. Who are the stakeholders for consultation process to determine electricity tariff ?