

**ADVANCED CERTIFICATE IN POWER
DISTRIBUTION MANAGEMENT**

00915

Term-End Examination

June, 2014

BEE-001 : POWER DISTRIBUTION SECTOR

Time : 3 hours

Maximum Marks : 100

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

SECTION A

Attempt all ten questions in the section.

10×1=10

Fill in the blanks with the following words :

Increase, building codes, feedback learning, per capita consumption, T and D losses, + 6% to – 6%, Energy input, Energy realised, less, more, decrease, Energy charts, Generation, Differential, Financial viability, investment, trip, 50%, capacitor, Flat tariff.

1. Commercial losses in the distribution system are _____ .
2. The voltage deviations allowed at LV level are from _____ .
3. Relay is used to _____ the Circuit Breaker.

4. _____ is used for power factor improvement.
5. The Regulatory Commission has mandate to curb _____ .
6. Distribution transformers normally have designed efficiency of _____ .
7. Power transformers are connected at _____ site.
8. Domestic tariff is called _____ .
9. The primary objective of Electricity Act, 2003 is to _____ .
10. _____ protection is used to protect transformers.

SECTION B

Attempt any ten questions.

10×2=20

11. What is trivector meter ?
12. How can we improve power factor in the distribution line ?
13. Why are instrument transformers used ?
14. What tests are performed on Energy meters ?
15. What do you mean by Hybrid metering ?
16. What are the reasons for commercial losses ?
17. What tests are performed in Circuit Breakers ?
18. What do you mean by load balancing ?
19. What are the electrical instruments used for Electrical Maintenance ?
20. What are T and D losses ?
21. What are the different types of transformers used for Electrical systems ?

SECTION C

Attempt all ten questions.

10×5=50

- 22.** What are the precautions taken for laying HV underground cable system ?
- 23.** What are the Earthing systems ?
- 24.** How are CT and PT used for metering systems ?
- 25.** Why are transformers used in Electrical systems ?
- 26.** How is relay connected to offer protection to Electrical systems ?
- 27.** Why are Breathers and Conservators used in transformers ?
- 28.** What factor decides the size of HV cable ?
- 29.** What is performance benchmarking ?
- 30.** What are the advantages of power factor improvement ?
- 31.** How are circuit breakers used to clear faults in Electrical systems ?

SECTION D

Attempt any two questions.

10×2=20

- 32.** What are the activities involved in Distribution system planning ?
 - 33.** Discuss the role of Electricity Regulatory Commission on electrical power business with special emphasis on tariff fixation.
 - 34.** Explain Energy Conservation Act, 2001.
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