

10600

**ADVANCED CERTIFICATE IN POWER  
DISTRIBUTION MANAGEMENT**

**Term-End Examination  
December, 2013**

**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**

Attempt all 10 questions in this section **10x1=10**

Fill in the blanks

Increase, feedback, learning, per capita consumption, T and D losses, +1% to -1%, energy input, less, more, energy charts, financial viability, investment, capacitors, increase efficiency, 50%, two part tariff copper losses, protection, time setting, plug setting.

1. Managing strategy through BSC (Balanced Score Card) proposes \_\_\_\_\_ .
2. The frequency deviation allowed at LT level is from \_\_\_\_\_ .
3. The primary objective of energy conservation Act 2001 is to \_\_\_\_\_ .

4. The regulatory commission have mandate to curb \_\_\_\_\_ .
5. Technical losses in the distribution system are \_\_\_\_\_ .
6. \_\_\_\_\_ are used to improve the power factor.
7. Industrial tariff includes \_\_\_\_\_ .
8. Circuit breakers are used for \_\_\_\_\_ .
9. \_\_\_\_\_ and \_\_\_\_\_ setting are used for relay protection.
10. Distribution transformers normally has designed efficiency of around \_\_\_\_\_ .

### SECTION-B

Attempt **any ten** questions.

**10x2=20**

1. What are T and D losses ?
2. What is TOD meter ?
3. How 3 phase meter for HT system is connected ?
4. What is the meaning of load balancing ?
5. What are instrument transformers ?

6. Why capacitors are installed in distribution system ?
7. What do you understand by hybrid metering ?
8. What are the earthing system used for LV system ?
9. What are the test performed on transformers ?
10. What is trivector meter ?
11. What are the test performed on energy meters ?

### SECTION-C

Answer **any ten** questions.

**5x10=50**

1. What are the advantages of power factor improvement ?
2. Why breather is used in transformer ?
3. How CT and PT are used in distribution system ?
4. What are the electric losses in the distribution system and how to reduce it ?
5. What is performance benchmarking ?
6. Explain the impact of LT/HT ratio on the losses and voltage.
7. How relay is used in protection scheme ?

8. What factors decides the sizing of the cable ?
9. Describe the procedure to calculate efficiency of transformer.
10. What is the effect of overloading on the transformer ?
11. What are the electric test carried out on circuit breakers ?

#### SECTION-D

Attempt **any two** questions.

**2x10=20**

1. Discuss the role of Electricity Regulatory Commission on electrical power business with special emphasis on tariff fixation ?
  2. What are the activities involved in transmission system planning ?
  3. What are the highlights of Electricity Act 2003 ?
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