

**ADVANCED CERTIFICATE IN POWER
DISTRIBUTION MANAGEMENT**

00985

Term-End Examination

June, 2014

**BEE-002 : ENERGY MANAGEMENT AND ITS
APPLICATION**

Time : 3 hours

Maximum Marks : 100

Note : *The question paper has three parts : Part I, II and III. Answer the questions as indicated in each part. Question no. 1 is compulsory.*

PART I

1. (a) Fill in the blanks as given in the check list below using the following words : $10 \times 1 = 10$
- (i) _____ is a system of application of water at a particular angle on burning transformer oil.
 - (ii) Substation _____ is integrated with SCADA often.
 - (iii) Many ERCs have mandated 100% metering at _____ level.
 - (iv) _____ provides the first line of defence against faults in a substation.

- (v) Zone-V covers the portion of the country where _____ risk is the highest.
- (vi) _____ may be the secondary effect of flood.
- (vii) Eliminate heat, _____ and fuel for fire-fighting.
- (viii) Turbine turns an electric _____.
- (ix) One unit of electric energy is equal _____ Whr.
- (x) One of the objectives of energy accounting is to identify areas of mismatch between _____ and revenue collection.

Check list :

1000; Oxygen; Automation; Relay;
Epidemics; Emulsifiers; Billing;
Seismic; Generator; DTR.

- (b) Give full form of the following : $10 \times 1 = 10$

CFL, WAN, RTU, GIS, MIS, GHG, LEAP,
R & D, AT & C Loss, CNG.

PART II

Attempt any five questions.

5×10=50

2. Explain the ESCO route to DSM.
3. What is ERP ? Outline the benefits of ERP software system and application areas in Distribution.
4. What is an energy audit ? What is its purpose ?
5. Describe first aid treatment for electric shock.
6. Describe different arrangements to limit spread of fire in a substation.
7. Outline the reasons for failures of electricity grid when a disaster strikes.

PART III

Attempt any two questions.

2×15=30

- 8.** What is SCADA ? Discuss its usefulness for improving the operation of a power system.
 - 9.** State and explain the purposes why should a power distribution utility use the GIS.
 - 10.** Describe the process of using a simputer/spot billing machine.
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