

Total No. of Questions : 10]

SEAT No. :

P1713

[5058]-346

[Total No. of Pages : 2

T.E.(Electrical)

ENERGY AUDIT AND MANAGEMENT

(2012 Pattern) (Semester) (End Semester)(303150)

Time : 2½ Hours]

[Max. Marks : 70

Instructions to the candidates:

- 1) *Attempt Q.1 or Q.2, Q.3 or Q.4, Q.5 or Q.6, Q.7 or Q.8 and Q.9 or Q.10.*
- 2) *neat diagrams must be drawn wherever necessary.*
- 3) *Figures to the right side indicate full marks.*
- 4) *Use of Calculator or is allowed.*
- 5) *Assume Suitable data if necessary.*

- Q1)** a) What are the various features of energy conservation building code (ECBC) of India? [6]
b) Classify various energy resources? [4]

OR

- Q2)** a) Enlist IE Rules. [4]
b) What are the basic Principles of Energy Management? [6]

- Q3)** a) What are various constraints of Supply side management? [6]
b) Explain energy manager skills required for successful energy management.[4]

OR

- Q4)** a) Explain DSM through tariff (TOD). [6]
b) Explain role of Energy Monitoring Systems. [4]

- Q5)** a) Define Energy Audit? Explain procedure for detail energy audit. [10]
b) Explain Cusum Technique. [8]

OR

- Q6)** a) Explain Energy audit case study in cement industries. [10]
b) Explain procedure involved in energy audit report writing. [8]

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- Q7)** a) Explain energy conservation techniques in heating system. [8]
b) Explain topping and bottoming cycles of cogeneration with block diagrams. [8]

OR

- Q8)** a) What are the advantages of energy efficient motors? Explain energy conservation potential in electric motors. [8]
b) Explain energy conservation techniques in air-conditioning systems. [8]

- Q9)** a) Explain NPV method used in economic analysis of energy conservation project. What are the advantages of this method? [8]
b) Explain energy audit case study in Educational institutes. [8]

OR

- Q10)** a) What is Budgeting? Explain various sources of capital. [8]
b) Explain energy audit case study in transmission and distribution (T &D) sector. [8]

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