

Total No. of Questions : 10]

**P2032**

SEAT No. :

[Total No. of Pages : 2

**[4858] - 1066**

**T.E. (Electrical) (End Semester )  
Energy Audit and Management  
(2012 Pattern) (Semester - II)**

*Time : 2.5 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 indicate full marks.*
- 4) *Use of calculator is allowed.*
- 5) *Assume suitable data, if necessary.*

**SECTION - I**

- Q1)** a) Explain Indian and Global Energy Scenario. [4]  
b) What is energy conservation? Why it is important in India? [6]

OR

- Q2)** a) Explain principles of energy management. [4]  
b) Explain duties of Energy Auditor under EC act - 2001. [6]

- Q3)** a) Define supply side management (SSM). What are its Constraints? [6]  
b) Explain features of automatic meter reading in utility energy management. [4]

OR

- Q4)** a) Define energy management as per energy conservation act-2001. Why Demand side Management (DSM) is important in India? [6]  
b) Explain DSM in agriculture sector. [4]

- Q5)** a) What are the types of energy audit? Explain in detail [10]  
b) Energy audit case study of sugar factory. [8]

OR

- Q6)** a) Explain action plans for implementation of energy conservation options. [10]  
b) Enlist and explain various instrumentation used in energy audit. [8]

**P.T.O.**

- Q7)** a) Explain various energy conservation opportunities in illumination area. **[8]**  
b) What is cogeneration? What are the advantages and disadvantages of co-generation? **[8]**

OR

- Q8)** a) Explain energy conservation techniques in heating systems. **[8]**  
b) Explain energy conservation potential in electric motors. **[8]**

- Q9)** a) Explain financial appraisal methods. **[8]**  
b) Explain energy audit case study in IT Industries. **[8]**

OR

- Q10)** a) Discuss the main objectives of carrying out sensitivity analysis. Also state the different factors that are considered for sensitivity analysis. **[8]**  
b) Explain energy audit case study in Municipal corporations. **[8]**

