Total No. of Questions : 10] [Total No. of Printed Pages : 3

Roll No. .....

EE/EX–605(N)

B. E. (Sixth Semester) EXAMINATION, June, 2011

(Common for EE and EX Engg. Branch)

ENERGY CONSERVATION AND MANAGEMENT

Time : Three Hours

Maximum Marks : 100

Minimum Pass Marks : 35

Note : Attempt *five* questions in all. All questions carry equal marks.

1. (a) What is energy audit ? Describe in brief preliminary energy audit and detailed energy audit.

   (b) Describe the role of energy manager for energy management in an organisation.

Or

2. (a) Why there is always loss of energy in material flow ? Discuss.

   (b) What are the important parameters generally monitored during energy audit ? Give the list of energy audit instruments.

3. (a) Explain the significance of Second Law of Thermodynamics and entropy in energy conservation.

   (b) Maintenace improves the energy conservation. Justify.

Or

4. (a) Describe the significance of predictive and preventive maintenance in conservation of energy.

   (b) Explain in brief energy efficient housekeeping and energy recovery in thermal systems.

5. (a) How energy can be stored in electrical and mechanical form ? What are the requiremens of energy storage ?

   (b) What is time value of money ? Give its importance.

Or

6. (a) Discuss different types of tariffs used for charging the consumer of electric energy.

   (b) How DSM can be achieved by load management ? Explain.

7. (a) Explain the ways for improving the efficiency of energy efficient drive.

   (b) How energy conservation in transportation system can be achieved ?

Or

8. (a) Discuss the advantage of improved power factor in power system. How this can be achieved ?

   (b) What is energy flow network ?

9. (a) What are the factors which affect co-generation choice ?

Or

10. Write short notes on any *two* of the following :

    (a) Simulation and modelling

    (b) Material load energy balance diagram

    (c) Matrix chart

    (d) Energy conservation process