

Name :

**Eighth Semester B.Tech. Degree Examination, November 2015
(2008 Scheme)**

08.801 : ENERGY MANAGEMENT (MPU)

Time : 3 Hours

Max. Marks : 100

Instructions : Answer **all** questions from Part **A** and **one** question from **each** Module in Part **B**.

PART – A



1. List the various types of energy conversion devices.
2. Differentiate between biomass and biogas.
3. Enumerate on site selection criteria for thermal power plants.
4. Explain (i) Demand factor (ii) Diversity factor.
5. Explain any two mechanical energy storage systems.
6. Enumerate the objectives of energy management program.
7. What do you mean by energy strategy ?
8. How are ECO's classified ?
9. Explain the principle of operation of a heat pipe.
10. What do you mean by waste heat recovery ?

(10×4=40 Marks)

P.T.O.

**PART – B****Module – I**

11. a) Explain the working of a thermal power plant with a schematic layout. 10
b) Explain the working of a H_2-O_2 fuel cell. What are its limitations? 10
12. a) With the help of a neat sketch, show all the parts of a nuclear reactor and describe the functions of each component. 10
b) Explain the working of a biogas plant with the aid of a neat sketch. 10

Module – II

13. Explain the different phases of energy management program. 20
14. a) What are the different plans of energy audit? 10
b) Enumerate the roll of computers on energy management. 10

Module – III

15. a) Explain different types of co-generation systems with suitable examples. 10
b) Explain various thermodynamic ECO's associated with a chemical industry. 10
16. a) Explain the various energy saving measures that can be adopted in your institution. 10
b) Explain the process of combined cycle power generation with a neat sketch. 10

(3×20=60 Marks)