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Reg. No. : .....

Name : .....

Eighth Semester B.Tech. Degree Examination, April 2015
(2008 Scheme)
08.801 : ENERGY MANAGEMENT (MPU)

Time : 3 Hours Max. Marks : 100

Instruction : *Answer **all** questions from Part **A** and **one full** question from **each** Module of Part **B**.*

PART – A

1. What are the difference between conventional power plant and non-conventional power plant ?
2. What are the various fuel options for a thermal power plant ?
3. What are the significances of biomass as an energy source ?
4. What are the basic procedures for conducting an energy audit ?
5. Discuss the viability of LED lights over CFL lights.
6. What are the applications of fuel cells ?
7. What do you mean by optimum performance of existing facilities ?
8. How are the waste heat recovery systems classified ?
9. Compare between renewable energy and non-renewable energy.
10. Mention four industries where cogeneration can be adopted. **(10×4=40 Marks)**

PART – B

Module – I

11. a) Explain the working of floating roof biomass digester. 10

    b) What are the advantages of nuclear power plants over thermal power plants ? 10

12. a) Explain the working of a fluidized bed biomass gasifier. 10

    b) What are the challenges of storing hydrogen as an energy source ? 10

Module – II

13. a) How you conduct a detailed energy audit ? 10

    b) What are the recent energy conservation methods adopted by the Govt. of India ? 10

14. a) How to formulate an energy management programme ? 10

    b) What is meant by star labeling ? Give two examples. 10

Module – III

15. a) Explain the working of a gas turbine based cogeneration system. 10

    b) What are the various waste heat recovery systems in a steam turbine power plant ? 10

16. a) Discuss the possibility of cogeneration in an IT sector. 10

    b) What are the ECO's that can be adopted in residential building ? 10
