



Reg. No. :

Name :

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

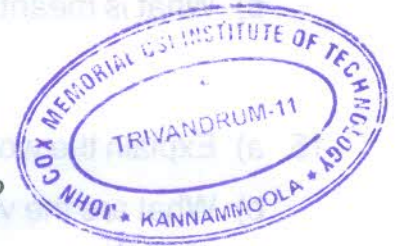
Time : 3 Hours

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**