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Reg. No. : .....

Name : .....

Eighth Semester B.Tech. Degree Examination, January 2018
(2013 Scheme)
13-801 : ENERGY MANAGEMENT (MP)

Time : 3 Hours Max. Marks : 100

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

PART– A

1. What are the ECOs in commercial buildings ?

2. What do you mean by energy plantation ? Give examples.

3. List the safety measures adopted in nuclear power plants.

4. How can we make use of MSW for energy generation ?

5. What is meant by energy policy ?

6. What are the electrical ECO's in a production plant ?

7. What are the procedures for pre-energy audit phase ?

8. Write short note on Pinch Technology.

9. Briefly explain electrical energy route.

10. What are the duties of an energy manager ? **(10×2=20 Marks)**

P.T.O.

PART – B

Module – I

11. a) Explain the roof top off-grid SPV system with merits and demerits. **10**

    b) With a schematic diagram explain the working of micro hydel system. **10**

OR

12. a) With a neat sketch explain the working of a boiling water reactor. **10**

    b) Explain the working of fluidized bed biomass gasifier. **10**

Module – II

13. a) Explain the working of a peak load power plant with a neat sketch. **10**

    b) Write short note on electrical means of energy storage systems. **10**

OR

14. a) Write short note on Indian energy scenario. **10**

    b) Per capita energy consumption is an indicator of development. How will you correlate this with environment ? **10**

Module – III

15. Explain the different types of energy audit in detail. **20**

OR

16. a) What are the common energy management control systems ? **10**

    b) What are the applications computers in energy management ? **10**

Module – IV

17. a) What is cogeneration ? How it can be adopted in Techno Park ? **10**

    b) Explain the working of any two waste heat recovery systems. **10**

OR

18. a) Differentiate between ECO and ECM. Mention the ECM's that can be adopted for a diesel power plant. **10**

    b) With a schematic diagram explain energy conservation measures adopted in a coal based thermal power plant. **10**

(4×20=80 Marks)