Roll No. ☐☐☐☐☐☐☐☐☐☐☐☐☐   Total No. of Pages : 02

Total No. of Questions : 18

B.Tech.(ME) (2012 Onwards E-II)   (Sem.–7)

POWER PLANT ENGINEERING

Subject Code : DE/ME-1.8

M.Code : 72004

Time : 3 Hrs.   Max. Marks : 60

INSTRUCTION TO CANDIDATES :

1. SECTION-A is COMPULSORY consisting of TEN questions carrying TWO marks each.
2. SECTION-B contains FIVE questions carrying FIVE marks each and students have to attempt any FOUR questions.
3. SECTION-C contains THREE questions carrying TEN marks each and students have to attempt any TWO questions.

SECTION-A

Answer briefly :

1. What is the working principle of Benson boiler?

2. What are magneto-hydrodynamic systems?

3. How the site selection of a steam power plant is done?

4. Define run-off. What are the factors affecting it.

5. Enlist various types of tariffs.

6. What is a moderator? Name common moderators.

7. What is a solar pond?

8. What are the functions of a draft tube in hydroelectric power plants?

9. Draw a schematic diagram of an intercooled gas turbine.

10. Differentiate between two stroke and four stroke diesel engine.

SECTION-B

11. What are the methods to generate electricity from city refuge?

12. Define the terms :

    a) Hydrology

    b) Hydrological Cycle

    c) Runoff

13. What are the advantages and disadvantages of diesel power plant as compared to other power plants?

14. Explain various methods of coal handling.

15. What are the various methods to forecast the load requirements of a power plant?

SECTION-C

16. How the power from solar energy can be obtained? Explain the methods in detail.

17. Explain the construction and working of CANDU reactor with neat diagram. What are its advantages and disadvantages?

18. Write short notes on :

    a) ESP

    b) Fuel cells

NOTE : Disclosure of Identity by writing Mobile No. or Making of passing request on any page of Answer Sheet will lead to UMC against the Student.