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Total No. of Pages : 02

Total No. of Questions : 09

B.Tech.(ME) (E-I 2011 Onwards) (Sem.-6)**POWER PLANT ENGINEERING**

Subject Code : DE/ME-1.8

M.Code : 71250

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**1. Answer briefly :**

- a. What is a steam generator?
- b. What is the function of air pre-heater? Where it is usually installed?
- c. What are radioactive elements?
- d. What are the different types of hydroelectric power plants?
- e. What are the different components of a nuclear power plant?
- f. What are high pressure boilers? How they differ in construction and working principle from ordinary boilers?
- g. Briefly explain thermionic conversion system.
- h. How nuclear energy is produced?
- i. Define Hydrograph.
- j. What are primary and secondary sources of energy?

SECTION-B

2. Discuss the various factors considered for nuclear power plant site selection.
3. Explain the working of Magneto-hydrodynamic system.
4. What are load curves? Explain its importance in the economics of power plant.
5. Explain the basic components of a gas turbine power plant.
6. Describe Electrostatic Precipitator for dust collection in a steam power plant.

SECTION-C

7. Draw a neat diagram of Breeder reactor. Describes it in brief with its advantages and disadvantages. Why the moderator is not required in these reactors?
8.
 - a. Explain the design consideration of horizontal and vertical axis wind mill.
 - b. How the power can be obtained from tides? How you classify tidal plants? What are limitations of tidal power stations?
9. Write short notes on :
 - a. Chain grate stoker
 - b. Pneumatic conveyer system

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.