Roll No. | | | | | | | | | | | | |

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

Paper ID : [A2409]

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

Q1 Answer briefly :

a. State the limitations of open cycle gas turbine cycle.

b. Give classification of tidal power plant.

c. What is diversity factor? Write its advantages.

d. List various types of diesel engines used for diesel power plants.

e. Define average load, peak load and base load.

f. Give classification of hydroelectric power plant.

g. Define critical mass and critical size in context with nuclear power plant.

h. Define the collection efficiency of a dust separator.

i. What is the principle of an electrostatic precipitator?

j. Enumerate the major sources of energy.

SECTION-B

Q2 Discuss the working of a geothermal power plant.

Q3 Explain thermionic conversion system.

Q4 Enumerate and explain the components of a steam power plant.

Q5 Explain various types of tariffs.

Q6 Write short notes on :

a) Hydrograph

b) Mass curve

SECTION-C

Q7 Explain the operation of combined steam and gas power plant.

Q8 Draw a neat diagram of a reactor and explain the function of its various components.

Q9 a) Write a note on electricity from city refuse.

b) Explain different methods to meet variable loads.