

SE. Electrical III CBSEGS
Conv. & Non-Conv. Power Generation

09.12.16
Q. P. Code : 542104

(3 Hours)

[Marks : 80]

- Note : (1) Question No 1 is compulsory
(2) Solve any three out of remaining
(3) Assume the suitable data required and mention the same

- Q.1 Answer the following 20
 a) What is the significance of two part tariff and three part tariff.
 b) What is the necessity of cooling the the condenser water.
 c) What factors affect a runoff data at a particular site.
 d) What is nuclear Fission, Fusion and plasma.
- Q.2 (a) Discuss the various factors affecting the selection of generating equipments. 10
 (b) A power plant has following data; load factor 70%; plant capacity factor 50%, plant use factor 60%; maximum load 30 MW. Calculate annual energy production; reserve capacity over and above peak load and number of hours plant not in operation per year. 10
- Q.3 (a) Discuss the role of super heater and its impact on the performance of power plant. 10
 (b) What are the different types of Fluidized Bed System (FBC)? Discuss the principle of basic FBS and its advantages and disadvantages. 10
- Q.4 (a) Discuss the broad classification of hydro electric power plant. Draw the figures for same. 10
 (b) Discuss the working liquid metal fast breeder reactor with diagram and its advantages and disadvantages. 10
- Q.5 (a) Discuss the role of various components of a gas turbines power plant. Draw the figures for same. 10
 (b) What is Solar pond technology?. Discuss the working of solar pond electric power plant. 10
- Q.6 (a) Discuss the working of horizontal and vertical axis wind turbine. 10
 (b) How the fuel cells are categorized? Discuss the basic principle of fuel cell operation. 10
