

Exam. Code: 0937
Sub. Code: 6385

1078
B. Engg. (Electrical & Electronics Engg.)
7th Semester
EE-703: Power Plant Engineering

Time allowed: 3 Hours

Max. Marks: 50

NOTE: Attempt five questions in all, including Q. No. 1 which is compulsory and selecting atleast two questions from each Unit.

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- I. (a) Name the essential components of a diesel electric plant.
- (b) Define the function of surge tank in hydro plants.
- (c) What do you understand by the term specific speed of a water turbine?
- (d) What are the methods used for handling of coal?
- (e) Why shielding is necessary in nuclear power plants? (5×2)

UNIT-I

- II. What are the different methods used for collection of dust before sending the flue gas through chimney? Explain them with suitable diagram. Also explain Ash Handling Cycle layout for the thermal power plant. (10)
- III. Draw a neat line diagram of a diesel power plant showing all the systems and explain the working. Mention the advantages and disadvantages of diesel power plant over a gas turbine power plant. (10)
- IV. (a) What are the different types of cooling towers? Explain with a neat sketch.
- (b) Explain how engines are selected for diesel power plants. (5+5)

UNIT-II

- V. What are the factors considered in selecting a prime-mover for a hydro-electric power plant? Describe the working of a low head hydro plant with a neat diagram. (10)
- VI. State the advantages of fast breeder reactors? Explain the principle of operation of boiling water reactor used for power generation along with a neat sketch. (10)
- VII. Write note on the following: -
 - (a) Actual Brayton Cycle
 - (b) Thermodynamic Cycles (2×5)

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