

Roll No:

Total No. of Questions : 09]

29/12/08 B

[Total No. of Pages :02

Paper ID [A0431]

(Please fill this Paper ID in OMR Sheet)

B.Tech. (Sem. - 7th/8th)

GENERATION OF ELECTRIC POWER (EE - 406)

Time : 03 Hours

Maximum Marks : 60

Instruction to Candidates:

- 1) Section - A is **Compulsory**.
- 2) Attempt any **Four** questions from Section - B.
- 3) Attempt any **Two** questions from Section - C.

Section - A

Q1)

(10 × 2 = 20)

- a) Define load factor.
- b) Wind power plant can be classified in which category, base load or peak load plant?
- c) Define demand factor.
- d) Which type of plant has highest capital cost?
- e) Define active, reactive and apparent power.
- f) What is spinning reserve?
- g) What is Lagrangian Multiplier?
- h) Is cost of fuel directly proportional to power output?
- i) Between which quantities is mass curve plotted?
- j) Name the different types of tariff.

Section - B

(4 × 5 = 20)

- Q2) Discuss why even if the maximum demand and load factor of two systems are equal, their load duration curves may not be similar?
- Q3) How is diversity helpful in reducing costs?
- Q4) What is “spot pricing”? What is its importance?
- Q5) Explain what are the advantages in having large size plants?
- Q6) How do stability considerations affect the plant capacity to be operated.

Section - C

(2 × 10 = 20)

- Q7) Discuss the role of load factor on the cost of electrical energy.
- Q8) Discuss the importance of proper load allocation in power plants. What information must be available for optimum load allocation?
- Q9) Why is it necessary to operate run-off river plant in combination with a steam plant? How are they operate in rainy season and dry season?