

Total No. of Questions : 8]

SEAT No. :

P4597

[Total No. of Pages : 2

[4957] - 1031

(Electrical)

POWER GENERATION TECHNOLOGY

(2012 Pattern)

Time : 2 Hours]

[Max. Marks : 50

Instructions to the candidates :-

- 1) Neat diagrams must be drawn wherever necessary.*
- 2) Figures to the right indicate full marks.*
- 3) Your answers will be valued as a whole.*
- 4) Use of logarithmic table slide rule, Mollier charts, electronic pocket calculator and steam table is allowed.*
- 5) Assume suitable data, if necessary.*

Q1) a) Explain the importance of feed water in thermal power plants. Describe it's treatment. **[6]**

b) With the help of neat diagram explain combined cycle Power Plant.**[6]**

OR

Q2) a) Differentiate between outdoor and indoor storage in fuel handling system in thermal Power Plant. **[6]**

b) Describe the procedure for nuclear waste disposal in nuclear Power Plant. **[6]**

Q3) a) Explain the site selection of hydro Power Plant. **[6]**

b) Explain the types of wind turbine electrical generators. **[7]**

OR

Q4) a) With neat diagram, explain pelton wheel turbine used in hydro Power Plant. **[7]**

b) What are the environmental impacts of wind turbines. **[6]**

P.T.O.

- Q5)** a) Explain the terms: [6]
- i) Solar constant
 - ii) Concentration ratio
- b) With the help of diagram, describe the PV I-V curve under standard test conditions. [7]

OR

- Q6)** a) Describe the types of solar collector and compare them. [8]
- b) Explain a photovoltaic generic cell. [5]
- Q7)** a) Explain how biomass energy can be converted to electricity. [8]
- b) Explain micro hydel plant. [4]

OR

- Q8)** a) What are the requirements of grid connected renewable system? [6]
- b) Write a short note on ocean energy. [6]

