Total No. of Questions : 8]

SEAT No. :

P4597

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[4957] - 1031

S.E. (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]**