

Total No. of Questions : 8]

SEAT No. :

P3343

[Total No. of Pages : 2

[5252]-142
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) *Figure to the right indicate full marks.*
- 3) *Use of logarithmic tables, slide rule, mollier charts, electronic, pocket calculator and steam tables is allowed.*
- 4) *Assume suitable data, if necessary*

- Q1)** a) Explain selection of Site for thermal power plants. [6]
b) Explain a simple gas turbine power plant with the help of diagram. [6]

OR

- Q2)** a) How boilers are classified in thermal power plant? [6]
b) How the choice of diesels power plant is made? [6]
- Q3)** a) Describe the terms storage and pondage in hydro power plants. [6]
b) Describe historical development of wind power with reference to India.[7]

OR

- Q4)** a) How the turbines are selected in hydro power plant? [6]
b) Explain wind turbine economics in wind energy systems. [7]
- Q5)** a) Explain the terms solar constant and concentration ratio in solar energy.[6]
b) Write the types of solar collectors. Explain any one. [6]

P.T.O.

OR

- Q6)** a) Develop simplest equivalent circuit for a PV cell from cells to modules to arrays. [6]
b) Explain impacts of temperature on I-V curves of PV cell. [6]
- Q7)** a) Explain conversion of biomass energy to electricity. [6]
b) Explain the harnessing geothermal energy. [7]

OR

- Q8)** a) Differentiate between Small, Mini and Micro hydel plants. [6]
b) What are the requirements for stand alone and hybrid stand alone renewable systems. [7]

