Total No. of Questions : 8]

SEAT No. :

P3410

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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.***

Q1) a) What is meant by feed water in thermal power plant? Describe it's treatment. **[6]**

b) What is heat balance in diesel power plant? Explain it with a simple example and justify its significance. **[6]**

OR

Q2) a) Explain the gas cycles in gas power plant. **[6]**

b) Draw a block diagram of fuel handling system in thermal power plant indicating the stages involved. **[6]**

Q3) a) Explain in take and out take works in hydro power plant. **[6]**

b) Explain the speed control of wind turbine to develop maximum power. **[7]**

OR

Q4) a) What are the environmental impacts of wind turbines? **[6]**

b) Compare the following dams in hydro power plant : **[7]**

i) Gravity dam

ii) Arch dam

iii) Buttres dam

P.T.O.

Q5) a) Explain the principles of solar radiation. **[6]**

b) What are the impacts of shading on I-V curves in solar energy system? How shading impact can be reduced? **[7]**

OR

Q6) a) What is the scope of fuel cell energy in India? Explain it's working. **[8]**

b) Explain the hybrid stand alone renewable energy system. **[5]**

Q7) a) Differentiate between small, mini and micro hydel plant with regards to their capacity and application. **[6]**

b) With the help of diagram describe the geothermal energy. **[6]**

OR

Q8) a) Write short notes on solar collectors. **[6]**

b) Explain a generic photovoltaic (PV) cell. **[6]**

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