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SEAT No. :

P1001

[Total No. of Pages : 2

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**S.E. (Electrical) (Semester - I)**  
**POWER GENERATION TECHNOLOGY**  
**(2012 Course)**

*Time : 2 Hours]*

*[Max. Marks : 50*

*Instructions to the candidates :*

- 1) *Neat diagrams must be drawn wherever necessary.*
- 2) *Your answers will be valued as a whole.*
- 3) *Assume suitable data, if necessary.*

**Q1)** a) Explain working of super heater used in thermal power plant with the help of neat circuit diagram. [6]

b) Explain working of pressurized water reactor with neat sketch. [7]

OR

**Q2)** a) Write short note on "Feed Water Treatment" for thermal power plant. [7]

b) Enlist main components of diesel engine power plant and state application of diesel power plant. [6]

**Q3)** a) Explain the working of Francis turbine with neat diagram. [6]

b) Explain grid connected wind energy conversion system with the help of neat diagram. [6]

OR

**Q4)** a) Write short note on spillways and penstocks used in hydro power plant. [6]

b) Why wind energy is preferred? Write advantages and disadvantages of wind energy. [6]

**Q5)** a) Explain solar cell, module, panel and array with diagram. [6]

b) Explain impact of temperature and insolation on I-V characteristic of solar PV cell. [7]

OR

**Q6)** a) Explain performance curve of PV cell with the help of I-V curves. [7]

b) Compare flat type solar collector with concentric solar collector. [6]

*P.T.O.*

- Q7)** Write short note on : **[12]**
- a) Mini and Micro hydel power plant.
  - b) Geothermal power plant.

OR

- Q8)** Write short note on : **[12]**
- a) MHD power plant.
  - b) Biomass power plant.

