Total No. of Questions: 8]	SEAT No.:	
P1001	[Total No. of Pages : 2	

[4457] - 172

## S.E. (Electrical) (Semester - I) (2012 Course)

POWER GENERATION TECHNOLOGY Time: 2 Hours] [Max. Marks: 50 Instructions to the candidates: Neat diagrams must be drawn wherever necessary. 2) Your answers will be valued as a whole. 3) Assume suitable data, if necessary. (01) 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 a) Write short note on "Feed Water Treatment" for thermal power plant.[7] Q2)b) Enlist main components of diesel engine power plant and state application of diesel power plant. [6] a) Explain the working of Francis turbine with neat diagram. Q3)[6] b) Explain grid connected wind energy conversion system with the help of neat diagram. [6] OR a) Write short note on spillways and penstocks used in hydro power plant. (Q4)[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] ORa) Explain performance curve of PV cell with the help of I-V curves. *Q6*) [7]

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

P.T.O.

## **Q7)** Write short note on:

[12]

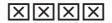
- a) Mini and Micro hydel power plant.
- b) Geothermal power plant.

OR

## **Q8)** Write short note on:

[12]

- a) MHD power plant.
- b) Biomass power plant.



[4457]-172

2