Total No. of Questions—8] [Total No. of Printed Pages—2

Seat No.	

[5352]-142

S.E. (Electrical) (I Sem.) EXAMINATION, 2018

POWER GENERATION TECHNOLOGY

(2012 PATTERN)

Time : Two Hours **Maximum Marks : 50**

N.B. :— (*i*) Neat diagrams must be drawn wherever necessary.
(*ii*) Figures to the right indicate full marks.
(*iii*) Use of logarithmic tables, slide rule, Mollier charts, electronic pocket calculator and steam tables is allowed.
(*iv*) Assume suitable data, if necessary.

1. (*a*) Differentiate between outdoor and indoor stroage in thermal power plant. [6]

(*b*) With the help of neat diagram, explain nuclear power plant layout. [6]

Or

2. (*a*) What are draught systems in thermal power plants ? Explain any *one* type of draught system. [6]

(*b*) Explain open loop and closed loop cycle gas power plants. [6]

3. (*a*) With neat diagram explain general arrangement of hydro power plant. [7]

(*b*) Derive the relation of pwoer in the wind. [6]

P.T.O.

Or

4. (*a*) Explain control of hydro turbines. [7]

(*b*) With the help of block diagram explain wind turbine power convertors. [6]

5. (*a*) Describe solar energy collectors used in solar thermal applications. [6]

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

Or

6. (*a*) Explain I-V curve of PV cell under standard test conditions. [6]

(*b*) Explain impact of insolation on I-V curves of PV cell. [6]

7. (*a*) With the help of sketch explain how municipal solid waste is converted to energy. [8]

(*b*) Explain the harnessing of ocean energy. [5]

Or

8. (*a*) What are the requirements for storage of fuel cell energy ? [5]

(*b*) With the help of diagram explain grid connected renewable system. [8]