

B.Tech. SEM -IV Electrical 2014 Course (CBCS) : SUMMER - 2019
SUBJECT: GENERATION, TRANSMISSION AND DISTRIBUTION

Day: Thursday
Date: 30/05/2019

S-2019-2610

Time: 10.00 AM TO 01.00 PM
Max. Marks: 60

N.B:

- 1) All questions are **COMUPULSORY**.
- 2) Figures to the right indicate **FULL** marks.
- 3) Assume suitable data if necessary.
- 4) Use of non programmable of **CALCULTOR** is allowed.

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- Q.1** a) List different Hydro-electric power station in the country. (05)
b) Explain functions of each component of Hydro-electric power station. (05)

OR

- Q.1** a) Explain reaction and impulse turbine. (05)
b) Draw block diagram of thermal power plant and explain it's working (05)

- Q.2** a) Explain load curve and its importance. (05)
b) Explain concept of cogeneration and captive generation. (05)

OR

- Q.2** a) Explain base load and peak load on power station. (05)
b) Explain following terms: (05)
 i) Connected load iv) Diversity factor
 ii) Maximum demand v) Load factor
 iii) Demand factor

- Q.3** a) Write a note on geothermal energy. (05)
b) Explain wind power plant. (05)

OR

- Q.3** a) Explain basic concept of solar power plant. (05)
b) Explain Magneto Hydro-Dynamics (MHD) generation. (05)

- Q.4** a) Obtain mathematical expression for string efficiency. (05)
b) Explain corona phenomenon and its interference. (05)

OR

- Q.4** a) Explain proximity and Ferranti effect. (05)
b) List different types of insulators; explain one of them with neat diagram. (05)

- Q.5** a) What is characteristics impedance? (05)
b) Represent performance of short transmission line. (05)

OR

- Q.5** a) Represent π model of transmission line. (05)
b) Evaluate and estimate ABCD constants. (05)

- Q.6** a) Classify different types of cable, explain any one in detail. (05)
b) What are different causes of failure of cables? (05)

OR

- Q.6** a) Obtain expression for insulation resistance of single core cable. (05)
b) Explain classification of distribution system. (05)