

**M. TECH.-II (ELECTRICAL -POWER SYSTEM) (CBCS – 2015  
COURSE) : WINTER - 2017**

**SUBJECT : ELECTIVE – I: POWER SYSTEM PLANNING & RELIABILITY**

Day : **Thursday** Time : **11.00 AM TO 02.00 PM**  
Date : **30/11/2017** **W-2017-2824** Max. Marks : 60

**N.B.:**

- 1) All questions are **COMPULSORY**.
- 2) Answers to both the sections should be written in the **SEPARATE** answer books.
- 3) Draw neat and labeled diagrams **WHEREVER** necessary.
- 4) Figures to the right indicate **FULL** marks.
- 5) Assume suitable data if necessary.

**SECTION – I**

- Q.1** Explicate time dependent factor, weather independent factor and random factors for load forecasting. [10]

**OR**

Compare peak load forecasting and reactive load forecasting.

- Q.2** Write a note on binomial distribution in probability theory to find arithmetic mean and standard deviation. [10]

**OR**

Explain Poisson distribution in probability theory to find mean and standard deviation.

- Q.3** Explain Stochastic prediction of frequency and duration of long and short term interruption. [10]

**OR**

Elucidate adequacy of system reliability and system security.

**SECTION – II**

- Q.4** Explicate reserve capacity method to evaluate generation reliability. [10]

**OR**

Elucidate various objectives of generation planning.

- Q.5** Explain the need of transmission planning. [10]

**OR**

Write a note on data required for composite system reliability.

- Q.6** Explain radial network for distribution of electricity along with basic distribution system diagram. [10]

**OR**

Explicate the effects of transferring loads in distribution system.

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