

MASTER OF TECHNOLOGY (ELECTRICAL - POWER SYSTEM) (CBCS - 2015 COURSE)
M. Tech. (Electrical-Power System) Sem-II :SUMMER- 2022
SUBJECT : POWER SYSTEM PLANNING & RELIABILITY

Day : Wednesday

Date : 3/8/2022

S-14127-2022

Time : 10:00 AM-01:00 PM

Max. Marks : 60

N.B.:

- 1) All questions are **COMPULSORY**.
- 2) Figures to the right indicate **FULL** marks.
- 3) Answers to both the sections should be written in **SEPARATE** answer book.

SECTION-I

Q.1 List out different methods of load forecasting ,Explain any one in detail. (10)

OR

Write short notes on :

- a) Energy forecasting (05)
- b) Non weather sensitive load forecasting (05)

Q.2 Explain in detail: correlation and regression. (10)

OR

Explain the following in brief:

- a) Normal Gaussian Distribution (05)
- b) Gamma and Beta distribution (05)

Q.3 a) What are different recursive techniques? (05)
b) Explain Markov process in detail. (05)

OR

Write a short note on:

- a) Adequacy of reliability (05)
- b) Reliability Cost (05)

SECTION-II

Q.4 Discuss the following concept in brief with respect to generation planning:
a) Outage rate (05)
b) Integrated resource planning (05)

OR

Write a short note on:

- a) factors affecting interconnection under Emergency Assistance (05)
- b) objectives of generation planning (05)

Q.5 Describe system and load point indices in context with transmission planning. (10)

OR

Discuss in brief about data required for composite system reliability, (10)

Q.6 a) What are parallel and meshed network, Explain each in brief. (05)
b) Discuss the effect of temporary and transient failure in context with distribution planning, (05)

OR

Write a short note on:

- a) Interruption indices (05)
- b) Effect of breaker failure (05)

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