

MASTER OF TECHNOLOGY (ELECTRICAL - POWER SYSTEM) (CBCS - 2015 COURSE)

**M. Tech. (Electrical-Power System) Sem-II :SUMMER- 2022
SUBJECT : POWER SYSTEM DYNAMICS**

Day : Tuesday
Date : 26-07-2022

S-14123-2022

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) Both the section should be written in **SEPARATE** answer book.
- 4) Assume suitable data if necessary.

SECTION - I

Q.1 With suitable block diagram elucidate state transition diagram. (10)

OR

Explicate the classical model of single machine connected to infinite bus bar. (10)

Q.2 Clarify the concept of small signal stability. (10)

OR

Explicate simplified synchronous machine model for small signal stability. (10)

Q.3 Elucidate modified Euler's method for large signal stability with appropriate flow chart. (10)

OR

Explicate the concept of simulation for power system dynamic response. What are various software used for simulation? (10)

SECTION - II

Q.4 Write a note on power system stabilizers (10)

OR

Clarify the structure and tuning of power system stabilizers. (10)

Q.5 Elucidate the improved model of multi-machine system. (10)

OR

Explicate the concept large power system and its analysis (10)

Q.6 Elucidate the concept of voltage collapse and its reasons (10)

OR

What is islanding. Compare various methods of islanding. (10)

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