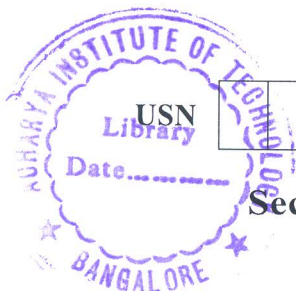


CBCS SCHEME



18EPS22

Second Semester M.Tech. Degree Examination, June/July 2019

Switching in Power Systems

Time: 3 hrs.

Max. Marks: 100

Note: Answer any FIVE full questions, choosing ONE full question from each module.

Module-1

- 1 a. Why Switching is an important aspect in power system? (10 Marks)
b. With a neat waveform explain Transient Recovery Voltage (TRV). (10 Marks)

OR

- 2 a. Write a note on Reactor-Limited Faults. (10 Marks)
b. Write a short note on classification of circuit breakers. (10 Marks)

Module-2

- 3 a. With reference to short line faults explain i) Travelling wave concept ii) Time delay. (10 Marks)
b. With neat equivalent circuit and wave forms, explain out of phase switching. (10 Marks)

OR

- 4 a. Explain capacitive-load switching. (10 Marks)
b. Explain overhead-line switching. (10 Marks)

Module-3

- 5 a. Explain the electromagnetic transients program. (10 Marks)
b. Explain air as an interrupting medium for fault current interruption by Arc Elongation. (10 Marks)

OR

- 6 a. Explain oil as an interrupting medium. (10 Marks)
b. Explain SF₆ as an interrupting medium. (10 Marks)

Module-4

- 7 a. Explain Double-pressure SF₆ circuit breakers. (10 Marks)
b. Explain Vacuum as an interruption environment. (10 Marks)

OR

- 8 a. Write a note on contact material for vacuum switchgear. (10 Marks)
b. Compare HV vacuum and HV SF₆ circuit breakers. (10 Marks)

Module-5

- 9 a. Explain switching related to series capacitor banks. (10 Marks)
b. Explain switching in Ultra-High Voltage (UHV) systems. (10 Marks)

OR

- 10 a. Explain switching in DC systems. (10 Marks)
b. Explain controlled switching of transformers. (10 Marks)

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Important Note : 1. On completing your answers, compulsorily draw diagonal cross lines on the remaining blank pages.
2. Any revealing of identification, appeal to evaluator and/or equations written eg. 42+8 = 50, will be treated as malpractice.