

Roll No.

24424

B. Tech. 7th Semester (EE)

Examination – May, 2019

COMPUTER APPLICATIONS TO POWER SYSTEM ANALYSIS

Paper : EE-409-F

Time : Three Hours] [Maximum Marks : 100

Before answering the questions, candidates should ensure that they have been supplied the correct and complete question paper. No complaint in this regard, will be entertained after examination.

Note : Attempt any five questions, selecting at least one question from each Section. Question Number 1. is compulsory. All questions carry equal marks.

- 1. (a) What is Contingency analysis in Power System ? 20
- (b) What is Bus incidence matrix ?
- (c) Discuss Security analysis.
- (d) What is Ferranti effect ?

SECTION – A

- 2. (a) Explain components of Power System. 10
- (b) Describe Performance of Transmission line. 10

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- 3. (a) Describe Contingency analysis in detail. 10
- (b) Discuss growth of power system. 10

SECTION – B

- 4. (a) Describe Formulation of Y bus using singular transformation. 10
- (b) Explain Gauss Seidal method for Load flow Study. 10
- 5. (a) Explain Decoupled Load flow studies. 10
- (b) Describe Load flow study of distribution system. 10

SECTION – C

- 6. (a) Explain Sequence networks for synchronous machine. 10
- (b) Describe considerations of pre fault currents. 10
- 7. Explain digital techniques in fault calculations. 20

SECTION – D

- 8. Discuss RTU. Explain SCADA system in detail. 20
- 9. (a) Discuss energy control centres and various states of power system. 10
- (b) Discuss different various MATLAB power system block. 10

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