

Roll No.

24424

B. Tech. 7th Semester (EE)

Examination – December, 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 five questions in all, selecting one question from each Section. Question No. 1 is compulsory. All questions carry equal marks.

- 1. (a) Explain per fault current condition. 5
- (b) What is Tree graph in load flow studies. 5
- (c) What is the importance of power flow studies. 5
- (d) What is EMTP ? State its features. 5

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P. T. O.

SECTION – A

- 2. Explain & discuss the growth of power systems. 20
- 3. Write a technical note on security analysis. 20

SECTION – B

- 4. Explain the Newton- Raphson method for load flow study and write its algorithm. 20
- 5. Write notes on : 20
 - (i) Decoupled Load flow studies.
 - (ii) Load flow study of distribution system.

SECTION – C

- 6. What is symmetrical and unsymmetrical fault in power system ? Explain double line to ground fault in detail. 20
- 7. Explain various digital types of faults in power Systems. 20

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SECTION - D

✓ 8. Explain the role and importance of SCADA System in a power system unit. Draw required diagram. 20

9. Explain the application of MATLAB power system block set. 20
