B.Tech 7th Semester (EE) F-Scheme Examination, May-2017

COMPUTER APPLICATIONS TO POWER SYSTEM ANALYSIS

Paper-EE-409-F

Time allowed: 3 hours]

[Maximum marks: 100

Note: Attempt five questions out of nine questions.

Question No.1 is compulsory. Students have to attempt one question from each of four section.

- 1. (a) What is RTU in power system?
 - (b) Explain Ferranti effect.
 - (c) What is pre fault current?
 - (d) Explain primitive network.

Section-A

- 2. Explain performance of transmission line.
- 3. Explain Security analysis and contingency analysis.

Section-B

- 4. (a) Write the Algorithm of fast decoupled method.
 - (b) Draw flow chart for Newton-Rapson method.

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5. Explain Gauss Seidel method for load flow study and write its algorithm.

Section-C

- **6.** (a) Explain types of modification in power system calculation.
 - (b) Explain digital technique in short circuit studies of double line to ground fault.
- 7. Explain various type of faults in power system.

Section-D

- 8. What is EMTP? Explain its features.
- 9. Explain various state of power system for energy control.