

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

December-2018

**COMPUTER APPLICATIONS TO POWER
SYSTEM ANALYSIS**

Paper-EE-409-F

Time allowed : 3 hours *[Maximum marks : 100*

*Note : Question no. 1 is compulsory and attempt any one
question from each of four sections.*

- 1. (a) Differentiate between Symmetrical and Unsymmetrical fault.
- (b) List the properties of Tree.
- (c) Explain Sparsh Matrix.
- (d) Explain Ferranti effect. 20

Section-A

- 2. (a) Explain components of Power System. 10
- (b) Describe Performance of Transmission Line. 10
- 3. (a) Describe Contingency analysis in detail. 10
- (b) Discuss growth of power system. 10

Section-B

- 4. (a) Compare GS method and NR method. 10

- (b) Describe load flow study of distribution system. 10
- 5. (a) Explain different techniques of solving load flow studies. 10
- (b) Describe Decoupled load flow studies. 10

Section-C

- 6. Double line to ground fault and symmetrical fault in detail. 20
- 7. What is digital fault ? Explain calculation of digital fault in symmetrical fault. 20

Section-D

- 8. (a) Explain various states of Power System. 10
- (b) Explain the schematic block diagram of SCADA. 10
- 9. Write Technical notes on :
 - (a) EMTP 10
 - (b) MATLAB for Power System. 10