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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