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

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

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

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