Roll No. ....

24424

B. Tech. 7th Semester (Electrical Engg.)

Examination – December, 2016

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 out of nine questions. Question No. **1** is *compulsory*. Students have to attempt *one* question from each of four Sections.

1. (a) What is the importance of power flow studies ?

    (b) What are the conditions for choosing slack bus ?

    (c) Explain sparsity.

    (d) Explain per fault current condition.

    (e) Compare GS & NR method.

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SECTION – A

2. Explain growth of power system.

3. Explain Ferranti effect in transmission line & calculate the performance of short transmission line.

SECTION – B

4. Explain formation of Y bus using singular transformation.

5. Explain NR method for load flow study & write its algorithm.

SECTION – C

6. Explain symmetrical components in power system. What is approximate load flow studies ?

7. Explain various digital types of faults in power system.

SECTION – D

8. Explain various states in SCADA system.

9. Describe various MATLAB block set in power system.