NR/R09

Code No: A4905/C4906, C6406

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD

M.Tech I - Semester Examinations, October/November-2011

VOLTAGE STABILITY

(COMMON TO ELECTRICAL POWER ENGINEERING, POWER ENGINEERING & ENERGY SYSTEMS)

Time: 3hours **Max. Marks: 60**

Answer any five questions

All questions carry equal marks

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1. Define term voltage instability and long term voltage instability. Give examples of occurrences of voltage instability in short term and long term range. [12]

2. Explain the angular stability of power system and how does if differ with voltage stability. [12]

3. Discuss about voltage stability on SMLB system? Justify with analytical analysis. [12]

4. Using load flow jacobian obtain voltage stability proximity indicator and voltage stability margin. [12]

5. Explain the various limiting features in the excitation system of a synchronous generator and their significance. [12]

6. Define voltage stability margin and also give detailed analysis for voltage stability margin for compensated and uncompensated system. [12]

7. Explain the various methods of improving the voltage stability and its practical aspects. [12]

8. a) Discuss about voltage security with the help of voltage profiles.
   b) Explain about dynamic voltage stability in detail. [12]

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