6. Enumerate the modeling of TCSC to enhance the system stability.

7. With a neat block diagram, explain the different modes of operation of thyristors controlled series capacitor.

8. Write short notes on any two of the following:
   i) Difficulties with reactive power transmission
   ii) Security constrained economic dispatch
   iii) Proximity indicators
   iv) Operating characteristics of FC-TCR and TSC

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Total No. of Questions :8] *[Total No. of Printed Pages :2*

Roll No .....

MEPE - 203

M.E./M.Tech., II Semester

Examination, June 2014

Power Electronics Application to Power System

Time : Three Hours

Maximum Marks : 70

Note : i) Attempt any five questions.
ii) All questions carry equal marks.

1. Explain how do you form Ybus by direct inspection with a suitable example.

2. a) What is the significance of sensitivity analysis in power system stability analysis? Explain.
   b) Describe in brief:
      i) Generation shift factor
      ii) Line outage distribution factor

3. What are P-V and Q-V curves? Discuss how these help in studying voltage stability of power system.

4. Develop an algorithm for monitoring voltage stability of a system based on minimum Eigen value of reduced load flow Jacobian.

5. With a neat schematic diagram, explain the various basic types of FACTS controllers in detail.