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

Roll No .....

MEPS - 104

M.E./M. Tech., I Semester

Examination, June 2016

Power Electronics Applications to Power Systems

Time : Three Hours

Maximum Marks : 70

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

1. a) What is the significance of load flow study? Explain.
   b) What do you mean by reactive power capability of an alternator?

2. a) Write down the algorithm for finding bus admittance matrix.
   b) What is loadability? Explain with respect to a transmission line.

3. a) Discuss the various losses associated with transmission line.
   b) What do you understand by sensitivity analysis? Discuss its importance.

4. What do you mean by generation shift distribution and line outage distribution factors? Also mention their significance.

5. a) Why security is necessary in power system, what are the different levels. Explain in detail.
   b) What is contingency selection?

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6. Explain about
   a) Transient stability model of TCSC.
   b) Modes of operation of TCSC.

7. a) What do you understand by flexible ac transmission system?
   b) Explain about the configuration and operating characteristics of TCR.

8. Write short notes on any two
   a) Capability curve of an alternator
   b) Regulated shunt compensation
   c) Proximity indicators

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