

MEPS - 205
M.E./M.Tech., II Semester
Examination, June 2013
Power System Transients

Time : Three Hours

Maximum Marks : 70

Note : 1. Attempt any five questions.

2. All questions carry equal marks.

1. Discuss the origin and nature of transients and surges in power systems.

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2. Explain various methodologies to control the occurrence of transients.

3. What is meant by lightning phenomena? Describe the methods which reduce the harmful effects of lightning in power system utilities.

4. Draw a flow chart, which shows the operation of a surge diverter in transient analysis. Explain.

5. Explain the principle and working of over voltage limiting devices.

6. What are the parameters of lumped and distributed circuit transients? Discuss an approximate method to evaluate the nature of transients.

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7. Enumerate Z transform method for power system transients analysis.

8. Write short notes on any two of the following:

- a) Tracking and erosion of insulation
- b) Bergeron method
- c) Effects of trapped charge in C.B.
- d) Line energisation and de-energisation transients

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