

Total No. of Questions : 8]

[Total No. of Printed Pages : 2

www.rgpvonline.com

Roll No

MEPS-205**M.E./M.Tech., II Semester**

Examination, June 2017

Power System Transients*Time : Three Hours**Maximum Marks : 70*

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

1. What are Transients? Discuss the origin and nature of transients in power system.
2. Explain how ground wire are used for the protection of conductor of transmission line. Also explain protective angle and protective zones of ground wires on a transmission line.
3. a) Distinguish between lumped and distributed transients.
b) Explain tracking and erosion of insulation.
4. Explain with neat sketches the mechanism of lightning phenomenon. Describe the methods which reduces harmful effects of lightning in power system.
5. What is tower footing resistance? Explain the methods to reduce this resistance. Why it is required to have this resistance as low as economically feasible?

www.rgpvonline.com

MEPS-205

PTO

[2]

6. a) Give the importance of Z-transform in transient analysis.
b) What are reflection and refraction of travelling waves? Derive them for an open end line.

www.rgpvonline.com

7. a) Explain the current chopping in circuit breakers.
b) What is meant by Insulation coordination? Discuss the various factors that influence breakdown in a gas.

8. Write short notes on following : (Any Two)

- a) PSCAD
- b) Trapped charge effect
- c) Overvoltage limiting devices

www.rgpvonline.com

MEPS-205