Roll No. | | | | | | | | | | | | | **Total No. of Pages : 01**

Total No. of Questions : 08

M.Tech (Electrical Engg. Power System) (EI-V) (2018 Batch) (Sem.–3)

POWER SYSTEM TRANSIENTS

Subject Code : EEPS-301A-18

M.Code : 76528

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

INSTRUCTIONS TO CANDIDATES :

1.Attempt any FIVE questions out of EIGHT questions.

2.Each question carries TWELVE marks.

1. a) What are the effects of switching transients in power systems? How these are handled for safe operation?

   b) Discuss the phenomenon of lightning surges and three phase transients. Explain the protective devices used for them.

2. Explain the switching transients of RL circuit with Cosine wave excitation. Compare the behaviour with RC circuit.

3. a) Discuss the various mathematical tools handle various types for transient for digital computation.

   b) Compare above tools in terms for better and fast results.

4. Derive the expression for current in a parallel RC circuit using Laplace transforms.

5. Derive the express for travelling waves for single -phase lossless line.

6. Discuss the process of closing and re-closing of lines .Also, write the impact on system thereof.

7. Discuss the insulation coordination in AIS and GIS.

8. Write note on following :

   a) Travelling wave

   b) Load rejection

   c) Switching HVDC Line

   d) Protective device for substation

NOTE : Disclosure of Identity by writing Mobile No. or Making of passing request on any page of Answer Sheet will lead to UMC against the Student.