

Code: **EEPC2T4**

**I M.Tech - II Semester-Regular Examinations – AUGUST 2016**

**ADVANCED POWER SYSTEM PROTECTION  
(POWER SYSTEM CONTROL AND AUTOMATION)**

Duration: 3 hours

Max. Marks: 70

*Answer any FIVE questions. All questions carry equal marks*

- 1) What are the merits and demerits of static relay over electromagnetic relay? Explain the basic principle working of static relay. 14 M
  
- 2) Explain the operating principle of a rectifier bridge phase comparator with necessary diagrams. 14 M
  
- 3) Give the constructional features, principle of working and characteristics of a directional over current relay. 14 M
  
- 4) Explain the principle of working of distance relays. Describe with neat sketches the following type of relays. 14 M
  - a) Impedance relay
  - b) static MHO relay.
  
- 5) Briefly explain the Translay scheme and carrier aided distance protection. 14 M

6) What are the abnormal conditions in a large alternator against which the protection is necessary? Discuss them briefly.

14 M

7) Explain the operating principle of micro processor based reactance relay along with complete flow chart and relay characteristic.

14 M

8) Write short notes on Insulation co-ordination. What are the factors to be considered in bus bar layout in sub stations?

14 M