Code: **EEPC2T4**

PVP 12

I M.Tech - II Semester-Regular Examinations – September 2015

ADVANCED POWER SYSTEM PROTECTION
(POWER SYSTEM CONTROL AND AUTOMATION)

Duration: 3 hours Marks: 5x14=70

Answer any FIVE questions. All questions carry equal marks

1. Show that the amplitude and phase comparator are due to each others. Explain operation of circulating current type rectifier bridge amplitude comparator. What do you understand by duality? 14 M

2. Why block average phase comparator is preferred over block spike phase comparator? 14 M

3. Explain the principle of operation of IDMT relay. How the directional characteristic is introduced? 14 M

4. Write short notes on 14 M
   i) Quadrilateral relay
   ii) Elliptical relay

5. Briefly explain the circulating current scheme and balanced voltage scheme. 14 M

6. What types of protective device are used for the protection of an alternator against overheating of its (i) stator (ii) Rotor? Discuss them in brief. 14 M

7. Explain the operating principle of micro processor based reactance relay along with complete flow chart and relay characteristics. 14 M

8. What is travelling wave? Explain the development of such a wave on an overhead line with the help of neat diagrams. 14 M