Code: **EEPC1T5C**

PVP 12

I M.Tech - I Semester - Regular Examinations – February-2016

POWER QUALITY

(POWER SYSTEM CONTROL AND AUTOMATION)

Duration: 3 hours Max. Marks: 70

Answer any FIVE questions. All questions carry equal marks

1. a) Explain the basic steps involved in power quality Evaluation. 7 M

   b) Define power Quality and explain the various reasons for increased concern in power quality. 7 M

2. a) Explain about Impulsive and oscillatory Transients. 7 M

   b) Explain the long and short duration voltage variations. 7 M

3. a) Explain the sources of sags and interruptions. 7 M

   b) Explain the voltage and current profiles during long interruptions. 7 M

4. a) Explain the various events leading to ferroresonance. 7 M

b) Define voltage swell and explain the protective schemes for voltage swell. 7 M

5. a) Explain the various harmonic indices for measuring the harmonic content of the waveform. 7 M

b) Explain the various harmonic sources from industrial loads. 7 M

6. a) Explain the various standards for interconnection of Distributed Generation on Distributed Networks. 7 M

b) Explain the Impact of Distributed Generation on the Distributed System Power quality. 7 M

7. a) Explain the various reasons for grounding. 7 M

b) Explain the various solutions to wiring and grounding problems with reference to safety and power quality. 7 M

8. a) Explain the various flicker measurement techniques. 7 M

b) Explain the various Power Quality measuring equipments. 7 M