G 1373 (Pages : 2) Reg. No.....

Name.....

B.TECH. DEGREE EXAMINATION, MAY 2016

Seventh Semester

Branch : Electrical and Electronics Engineering

EE 010 706 L03—POWER QUALITY (Elective II) (EE)

(New Scheme—2010 Admission onwards)

[Improvement/Supplementary]

Time : Three Hours Maximum : 100 Marks

Part A

Answer **all** *questions.*
Each question carries 3 *marks.*

1. Write a note on CBEMA acceptability curve.
2. Explain a rotary uninterrupted power source unit.
3. Explain transient system model.
4. Explain distortion volt-ampere.
5. Explain wiring and grounding testers.

(5 × 3 = 15 marks)

Part B

Answer **all** *questions.*
Each question carries 5 *marks.*

6. Explain classification of PQ issues.
7. Explain causes for voltage swell.
8. Differentiate impulsive and oscillatory transients.
9. Explain effect of triplen harmonics on power systems.
10. Differentiate spectrum analyser and harmonic analyser.

(5 × 5 = 25 marks)

Part C

Answer **all** *questions.*
Each full question carries 12 *marks.*

11. (a) Explain various standards for Power Quality.

Or

(b) Explain Power Quality and equipment immunity.

Turn over

12. (a) Explain Measures available to deal with low frequency disturbances.

Or

(b) Explain static and rotary UPS systems.

13. (a) Explain devices for over voltage protection.

Or

(b) Explain the transient model of power system.

14. (a) Explain some of the more common nonlinear loads that surround us in out everyday life.

Or

(b) Explain effects of harmonics on power system devices.

15. (a) Explain various flicker measurement techniques.

Or

(b) Write a note on smart power quality monitors.

(5 × 12 = 60 marks)