

R09**Code: 9A02801**

B.Tech IV Year II Semester (R09) Advanced Supplementary Examinations June/July 2016

PRINCIPLES OF POWER QUALITY

(Electrical & Electronics Engineering)

Time: 3 hours

Max. Marks: 70

Answer any FIVE questions
All questions carry equal marks

- 1 (a) Explain about impulse transient and oscillatory transient.
(b) Discuss about different problems of the short voltage transients.
- 2 (a) Explain about sources of sags and interruptions.
(b) Write the fundamental principles of protection.
- 3 Discuss about different utilities for capacitor switching transients.
- 4 (a) Explain about voltage versus current distortion in the harmonics.
(b) Discuss about different types of harmonic sources of commercial loads.
- 5 (a) Explain about voltage principles for controlling the harmonics.
(b) Explain about zig zag transformers and passive filters in controlling the harmonics.
- 6 (a) Write the principles for regulating the voltage.
(b) Explain the different devices for regulating the voltage.
- 7 (a) Write the procedural steps for power quality benchmarking.
(b) Write about power quality contracts.
- 8 Explain about different equipment used for the power quality monitoring.
