NR

Code No: B4903

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD
M.TECH II-SEMESTER EXAMINATIONS, APRIL/MAY 2012
POWER QUALITY
(ELECTRICAL POWER ENGINEERING)

Time: 3hours **Max. Marks: 60**

Answer any five questions
All questions carry equal marks

- - -

1.a) Explain various terms that are used in Power Quality.
b) Briefly explain the principle of Power Quality monitoring.

2.a) Explain the differences between failure, outage and interruptions.
b) Discuss the limits of interruption frequency.

3.a) Explain the differences between medium and low voltage systems.
b) Explain the voltage and current profiles during fault period and post fault periods.

4.a) Describe how voltage sag is calculated in meshed systems.
b) Discuss voltage sag duration.

5.a) Explain about voltage sags in three phase circuits.
b) Explain the magnitude jumps for three phase unbalanced sags.

6.a) Explain the operation of adjustable DC drives.
b) Discuss the mitigation methods of AC drives.

7.a) Discuss about combined shunt and series voltage controller.
b) Explain how mitigation equipment can be installed.

8.a) What do you mean by standardization? Explain electromagnetic compatibility standards.
b) Discuss the techniques that used to improve Power Quality.

****