Seat No.:	Enrolment No.

GUJARAT TECHNOLOGICAL UNIVERSITY

ME - SEMESTER- II(Old course) • EXAMINATION (Remedial) - WINTER- 2015

Subject Code: 1724505 Subject Name: Power Quality Time: 2:30 pm to 5:00 pm Instructions: Total Marks:			Date: 11/12/2015	
1113		Attempt all questions. Make suitable assumptions wherever necessary.		
Q.1	(a) (b)	Discuss in brief Power Quality. Define following terminology, 1. Sag 2. Swell 3. Flicker 4. Noise 5. DC offset 6. Impulse transient 7. Oscillatory transient	07 07	
Q.2	. ,	Discuss various causes of voltage flicker and their effects. Suggest various means to reduce flickers. Discuss the area of vulnerability	07 07	
	(b)	OR	07	
	(b)	Discuss about the computer Business Equipment Manufactures Associations (CBEMA).	07	
Q.3	` '	Explain series and parallel active filter. Explain the various causes & effect of voltage sags. OR	07 07	
Q.3	. ,	Explain different type of Potential transformer used as a transducer in power quality monitoring.	07	
	(b)	List out the power quality measuring instrument & explain any two.	07	
Q.4		Explain reason for grounding & problem associated with grounding. Explain the steps involved in power quality monitoring. What is the information from monitoring site surveys? OR	07 07	
Q.4	(a)	What are transient over voltages? Explain the different types of transient over voltages.	07	
	(b)	Enlist and Explain various devices used for voltage regulation.	07	
Q.5	(a) (b)	Explain the harmonic effects on power system equipments briefly. How will you find the harmonic sources from point of common coupling? Give the identification procedure on the basis of voltage indices.	07 07	
Q.5	(a)	OR Explain for the following: (i) Harmonic sources from industrial loads. (ii) Harmonic sources from residential loads.	07	
	(b)	Explain the power system response characteristics under the presence of harmonics.	07	