Seat No.:	Enrolment No.

Subject Code:180901

## GUJARAT TECHNOLOGICAL UNIVERSITY

## **BE - SEMESTER-VIII EXAMINATION - WINTER 2015**

Date:09/12/2015

Ti	Subject Name: Commissioning of electrical engineering Time: 2:30pm to 5:00pm Instructions:  1. Attempt all questions. 2. Make suitable assumptions wherever necessary. 3. Figures to the right indicate full marks.		70
Q.1	(a) (b)	Write short note on earthing. Explain tan delta test.	07 07
Q.2	(a) (b)	Explain procedure for determination of polarization index for transformer.  Explain procedure for drying out of transformer.  OR	07 07
	<b>(b)</b>	Explain behavior of 3 phase induction motor under abnormal frequency condition and under single phasing condition.	07
Q.3	(a) (b)	Explain dc charge and discharge test to find discontinuity of cable conductor. How could you measure DC resistance of 3 phase induction motor?  OR	07 07
Q.3	(a) (b)	Give reasons and remedial steps for 3 phase slip-ring induction motor for following conditions:  1) Motor fails to start.  2) Motor runs slow.  3) Motor runs hot.  Give commissioning steps for synchronous machine.	07
Q.4	(a) (b)	Explain short time current test on circuit breaker.  Explain polarity test, ratio checking test and phase sequence test on potential transformer.  OR	07 07
Q.4	(a) (b)	Explain phenomenon related to capacitor bank switching making and breaking. Explain temperature rise test on isolator.	07 07
Q.5	(a)	Give probable reasons and remedial measures for following fault/troubles to lead acid battery.	07
	<b>(b)</b>	Enlist mechanical and electrical test required before commissioning of dc machine. Also write condition for normal working of the dc machine.  OR	07
Q.5	(a)	Explain Growler and drop test by voltmeter for finding fault location in armature winding.	07
	<b>(b)</b>	Explain ac leakage current test on lightening arrestor.	07
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