Seat No.: _____ Enrolment No._____

GUJARAT TECHNOLOGICAL UNIVERSITY

PDDC - SEMESTER–VIII • EXAMINATION – WINTER • 2014

Subject Code: X 80901 Date: 28-11-2014

Subject Name: Commissioning of Electrical Equipments

Time: 02:30 pm - 05:00 pm Total Marks: 70

Instructions:

1. **Attempt all questions.**
2. **Make suitable assumptions wherever necessary.**
3. **Figures to the right indicate full marks.**

Q.1	**(a)**	Explain the significance of Polarization Index Number. Explain drying out procedure of Power Transformer.	**07**
	(b)	Differentiate between type and routine test. Explain any two routine test of Power transformer with necessary circuit diagram.	**07**
Q.2	**(a)**	Explain Hopkinson's Test of D.C.Machines.	**07**
	(b)	Explain measurement of DC and AC Resistance of Armature and Field winding of synchronous machines.	**07**
		OR	
	(b)	Explain the different methods of earth resistance measurement.	**07**
Q.3	**(a)**	Explain the different methods of slip measurement of Induction Motor.	**07**
	(b)	Explain Vibration and Noise measurement of synchronous machines.	**07**
		OR	
Q.3	**(a)**	For the following conditions explain in detail troubles, causes and its remedies for synchronous motor. i) Motor fails to start ii) Motor fails to synchronize iii) motor starts but fail to come up to full speed	**07**
	(b)	Explain Mechanical Endurance and Impulse testing of Circuit breakers.	**07**
Q.4	**(a)**	Explain the procedure of installation of synchronous machines arriving in dismantled condition at site.	**07**
	(b)	Explain Murray loop test of cable.	**07**
		OR	
Q.4	**(a)**	What is the significance of partial discharge measurement and Tan Delta test in case of transformer?	**07**
	(b)	Explain with the help of circuit diagram the partial discharge test of transformer.	**07**
Q.5	**(a)**	What is the working of ELCB? What are the different tests performed on it?	**07**
	(b)	Explain charging current making and breaking test of isolator.	**07**
		OR	
Q.5	**(a)**	Explain out of phase switching and short line fault test in circuit breaker.	**07**
	(b)	Explain the procedure of locating earth fault and open circuit in shunt field of D.C machine	**07**

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