## **GUJARAT TECHNOLOGICAL UNIVERSITY**

## BE - SEMESTER-VIII EXAMINATION – SUMMER 2016

Subject Code:180901		Code:180901 Date:10/05/201	Date:10/05/2016	
Tiı	me:10	Attempt all questions.  Make suitable assumptions wherever necessary.	70	
Q.1	(a)	What is slip? Explain different methods for measurements of slip of Induction Motor.	07	
	<b>(b)</b>	Describe the following tests to be conducted on 3-phase Induction Motor as per IS-325. (1) Insulation resistance (2) High Voltage (3) Temperature rise	07	
Q.2	(a) (b)	Explain the procedure of alignment of shaft of electrical machines.  Differentiate between type test and routine test. Explain any two routine test of Power transformer with necessary circuit diagram.  OR	07 07	
	<b>(b)</b>	Explain tan delta test on power Transformer with help of circuit diagram.	07	
Q.3	(a) (b)	Explain the significance of Polarization Index Number. Explain drying out Procedure of Power Transformer.  What are the significance of vector groups in parallel operation? Can we	07	
		connect Dy1 & Dy11 transformer in parallel? Give your reason.  OR		
Q.3	(a) (b)	Explain the different methods of earth resistance measurement.  Explain no load test and mechanical endurance test on circuit breaker.	07 07	
Q.4	(a)	State the importance of mechanical balance and magnetic balance in synchronous machine. How mechanical balance is measured?	07	
	<b>(b)</b>	Explain commissioning steps for synchronous machines	07	
		OR		
Q.4	(a) (b)	Explain Hopkinson's Test of D.C. Machines Explain Murray loop test for ground fault location in underground cable.	07 07	
Q.5	(a)	State the possible trouble, causes and remedial actions for outdoor circuit breaker.	07	
	<b>(b)</b>	Explain charging current making and breaking test of isolator.	07	
Q.5	(a) (b)	OR  How bar-to-bar test is performed on DC machine? State importance of this test.  State the various troubles ,causes and remedies for DC motors.	07 07	

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