Seat No.:	Enrolment No.

GUJARAT TECHNOLOGICAL UNIVERSITY

BE - SEMESTER-V • EXAMINATION – SUMMER 2013

Subject Code: 150802 Subject Name: Electrical Machines		Date: 20-05-2013	
•	: 10	:30 pm to 01:00 pm	Total Marks: 70
	2.	Attempt all questions. Make suitable assumptions wherever necessary. Figures to the right indicate full marks.	
Q.1	(a) (b)	Explain different parts of D.C.Machine. Explain working principle of Capacitor start single plinduction motor.	07 nase 07
Q.2	(a)	Explain following term: 1) Coil Span 2) Pole Pitch Dummy coil	
	(b)	What is Armature Reaction? How it is effect performance of d.c.machine? OR	the 07
	(b)	What are the methods to minimize the effect of arma reaction?	
Q.3	(a) (b)	What are the different losses occur in D.C. Machine? Explain Swin burn test in D.C. Machine.	07 07
	(8)	•	V.
Q.3	(a)	OR Explain construction of three phase transformer.	07
	(b)	Explain delta/star and star/star vector group for three pl transformer.	nase 07
Q.4	(a)	What is the necessity of parallel operation of three pl transformer? What are the conditions of parallel opera of three phase transformer?	
	(b)	Explain the Scott connection for three phase transforme OR	r. 07
Q.4	(a)	Explain equivalent circuit of three phase induction motor	or. 07
Q.4	(b)	Explain the No-Load and Block rotor for three plinduction motor.	nase 07
Q.5	(a)	Explain the Double cage induction motor and what is advantage of Double cage induction motor?	the 07
	(b)	Explain different methods of speed control of three plinduction motor. OR	nase 07
Q.5	(a)	How the 'V' curve is obtained for synchronous machine	e? 07
	(b)	Explain working construction and working of Perman Magnet Brushless DC Machine	nent 07
