GUJARAT TECHNOLOGICAL UNIVERSITY BE - SEMESTER-V (NEW) - EXAMINATION – SUMMER 201 Subject Code:2152001 Date:21/0 Subject Name:Electro Mechanical Energy Conversion		o.: Enrolment No	
		ct Name:Electro Mechanical Energy Conversion 202:30 PM to 05:00 PM Total Marks: 70 tions:	16 05/2016
		 Make suitable assumptions wherever necessary. Figures to the right indicate full marks. 	
Q.1	(a)		07
	(b)	suitable diagrams. Explain eddy currents and eddy current losses in electric machines. Also explain formula by which eddy current losses are calculated.	07
Q.2	2 (a)	Explain energy balance in a nonlinear magnetic system excited by a single source of sinusoidal AC supply using suitable diagrams.	07
	(b)		07
	(b)		07
Q.3	3 (a) (b)	Explain various power stages in 3 phase induction motor using suitable power flow diagram.	07 07
Q.3	3 (a) (b)		07 07
Q. 4	(a) (b)		07 07
Q. 4	l (a)		07
	(b)	Using suitable diagrams, explain construction details of shaded pole single phase motor.	07

(b) What is the difference between normal DC motors and DC servo motors? Also

(a) List various types of stepper motors and explain variable reluctance stepper

(b) Explain double field revolving theory for single phase induction motors.

Explain construction and working of PMDC motors.

explain construction and working of DC servo motors.

Q.5

Q.5

07

07

07

07