Seat No.: _	Enrolment No		
GUJARAT TECHNOLOGICAL UNIVERSITY			
PDDC - SEMESTER-II • EXAMINATION – WINTER 2013			
-		Date: 20-12-2013	3
Subject 1	Name: Electrical Engineering		
Time: 02 Instruction	2.30 pm - 05.00 pm s:	Total Marks: 70	0
2.	Attempt all questions. Make suitable assumptions wherever necessary. Figures to the right indicate full marks.		
Q.1 (A) Ex	aplain the DC servomotor construction and working.		[7]
Q.1 (B) Ex	plain construction and working of VR motor.		[7]
Q.2 (A) Ex	aplain specifications of stepper motor and its applications i	n detail.	[7]
Q.2 (B) De	erive the equation of torque for the Induction Motor. OR		[7]
Q.2 (B) En	list various measurement methods for slip and explain any	one in detail.	[7]
Q.3 (A) Ex	aplain the no load and load characteristics of DC Generator	:.	[7]
Q.3 (B) Cl	assify the DC generator and explain construction of it. OR		[7]
O.3 (A) Ex	aplain speed torque characteristics of all types of DC Moto	rs.	[7]
- ' '	hat are the methods of starting of DC Motor? Explain any		[7]
2.4 (A) Ex	splain the construction and working principle of 1-ph Trans	sformer.	[7]
Q.4 (B) Cl	assify the transformer with respect to construction. Explain OR	n any one in detail.	[7]
O.4 (A) Ex	aplain OC & SC Test on the 1-ph Transformer.		[7]
	Derive the condition for the maximum efficiency of the Tra	nsformer.	[7]
- ' '	Explain the Capacitor start capacitor run 1-ph induction motor wis Universal motor constructed?	or in detail.	[7] [7]
25(4) 5	OR		7 7
	splain the Voltage regulation of synchronous machines. Explain the phasor diagram for the synchronous motor with [7]		[7]
