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Date:06/05/2015

Seat No.:	
No	

Subject Code: 170 906

GUJARAT TECHNOLOGICAL UNIVERSITY

BE - SEMESTER-VII • EXAMINATION - SUMMER • 2015

Ti	me:2 tructio	Attempt all questions.Make suitable assumptions wherever necessary.Figures to the right indicate full marks.	0
Q.1		Draw circuit diagram and showing waveforms, explain working of full bridge series resonant inverter.	07
	(b)	Draw circuit diagram and showing waveforms, explain working of Zero Voltage Switching Converter.	07
Q.2	(a) (b)	State advantages and disadvantages of multi-pulse converters. Giving circuit diagram and showing waveforms, explain working of fly-back converter type switched mode DC power supply. OR	07 07
	(b)	State types of uninterruptible power supply. Giving block diagram explain their working.	07
Q.3	(a)	Explain working of Zero Current Switching resonant converter using half wave and full wave type of converter circuits.	07
	(b)	Give comparison between ZVS and ZCS resonant converters.	07
		OR	
Q.3	(a)	Explain working of Zero Voltage Switching resonant converter using half wave and full wave type of converter circuits.	07
((b)	Draw the circuit diagram and showing waveforms, explain working of Two Quadrant resonant converter.	07
Q.4	(a)	Draw circuit diagram of improved diode clamped type multilevel inverter and explain its working. Also discuss its salient features.	07
	(b)	Compare multilevel converters with two level converters.	07
		OR	
Q.4	(a)	Draw circuit diagram of flying capacitor type multilevel inverter and explain its working. Also discuss its salient features.	07
	(b)	Draw circuit diagram of cascaded H-bridge type multilevel inverter and explain its working. Also discuss its salient features.	07
Q.5	(a) (b)	Write a short note on Variable reluctance Stepper Motor. Explain construction and working of Brushless DC Motor.	07 07
		OR	
Q.5	(a) (b)	Write a short note on Permanent Magnet Stepper Motor. Draw circuit diagram and explain working of switched mode AC power supply.	07 07
