Seat No.: _____ Enrolment No._____

GUJARAT TECHNOLOGICAL UNIVERSITY

PDDC - SEMESTER– VII • EXAMINATION – SUMMER 2014

Subject Code: X70905 **Date: 05-06-2014**

Subject Name: Advance Power Electronics-I

Time: 02.30 pm to 05.00 pm **Total Marks: 70**

Instructions:

1. **Attempt all questions.**
2. **Make suitable assumptions wherever necessary.**
3. **Figures to the right indicate full marks.**

Q.1	**(a)**	Explain Series Resonant Inverter with necessary diagram.	**07**
	(b)	Explain Zero Voltage Resonant Converter with necessary diagram.	**07**
Q.2	**(a)**	Explain Class-E Resonant Inverter.	**07**
	(b)	Discuss Difference between ZCS and ZVS.	**07**
		OR	
	(b)	Explain basic principal of Multilevel Inverter.	**07**
Q.3	**(a)**	Explain Diode Clamped Topology for Multilevel Inverter.	**07**
	(b)	Explain Cascaded Topology for Multilevel Inverter.	**07**
		OR	
Q.3	**(a)**	Comparison between all Topologies of Multilevel Inverter.	**07**
	(b)	Explain Flying Capacitor Topology for Multilevel Inverter.	**07**
Q.4	**(a)**	Explain Different types of Multi pulse Converter.	**07**
	(b)	Write Short note on Different Transformer Connection for Multi Pulse converter.	**07**
		OR	
Q.4	**(a)**	Explain Fly Back Converter Topologies for SMPS.	**07**
	(b)	Explain Full bridge Converter Topologies for SMPS.	**07**
Q.5	**(a)**	Write Short note on ONLINE UPS.	**07**
	(b)	Write Short note on Resonant AC Power Supply.	**07**
		OR	
Q.5	**(a)**	Write Short note on Control of BLDC Motor.	**07**
	(b)	Write Short note on Construction and Working of SRM Motor.	**07**

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