Seat No.:	Enrolment No.

GUJARAT TECHNOLOGICAL UNIVERSITY

BE - SEMESTER-VII • EXAMINATION – SUMMER • 2014

	•	Code: 172403 Date: 05-06-201	4
		Name: Power Processing Circuits-II 2:30 pm - 05:00 pm Total Marks: 7	'0
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	1. 2. 3.	Attempt all questions. Make suitable assumptions wherever necessary. Figures to the right indicate full marks.	
Q.1	(a) (b)	Explain the working of cascade H-Bridge Inverter. Explain AC Voltage control by Integral Cycle Control Method.	07 07
Q.2	(a)	Enlist the disadvantage of controlled rectifier. Discuss on active front – end rectifier. Enumerate the advantages and applications of active front-end rectifier also.	07
	(b)	Differentiate between a static switch and an electro-mechanical switch. Explain working of three phase static switch with neat diagram. OR	07
	(b)	Write a detailed technical note on Electronic Tap Changer.	07
Q.3	(a)	Describe three phase inverter with circuit diagram having 120 ° conduction modes and draw various waveforms.	07
	(b)	Explain ZCS.	07
Q.3	(a) (b)	OR Write a comprehensive note on parallel resonant pulse inverter. Explain ZVS.	07 07
Q.4	(a) (b)	Explain load commutated Inverter. Classify multilevel Inverter. Explain the concept and principle of multilevel inverter specifying its applications.	07 07
		OR	
Q.4	(a) (b)	Explain Full-bridge Inverter. Distinguish between VSI and CSI.	07 07
Q.5	(a) (b)	Explain the voltage control technique of inverter by PWM. Explain the voltage control technique of inverter by output side control method.	07 07
0.5		OR	^=
Q.5	(a) (b)	Explain battery charging process and Ampere-Hour calculation for battery. Why battery is used? Explain constant current and trickle charging methods for battery.	07 07
