Seat No.:	Enrolment No

## **GUJARAT TECHNOLOGICAL UNIVERSITY PDDC - SEMESTER-VIII • EXAMINATION - SUMMER 2013**

Subject Code: X80905 Date: 15-05-2013 **Subject Name: Advanced Power Electronics - II** Time: 10.30 pm - 01.00 pm **Total Marks: 70 Instructions:** 1. Attempt all questions. 2. Make suitable assumptions wherever necessary. 3. Figures to the right indicate full marks. (a) Compare HVDC and HVAC. 0.1 **07 (b)** Write an applications and advantages of FACTS. 07 0.2 (a) Write a short note on automatic generation control with necessary block 07 diagram. **(b)** Write a short note on series compensation. **07 (b)** Write a short note on shunt compensation. **07** Q.3(a) Write a short note on TSCTCR. **07 (b)** Compare different types of SVCs. 07 OR Q.3(a) Write a short note on TCT. **07 (b)** Write a short note on FC-TCR. **07** (a) Write a short note on historical development of HVDC transmission lines. **07** 0.4 (b) Write a short note on limitation and applications of HVDC transmission lines. 07 OR (a) Write a short note on six pulse converter with suitable diagrams. 07 0.4 (b) Write a short note on HVDC-VSC operations with necessary diagrams. **07** (a) Write a short note on ideal commutation process without gate control. **07** Q.5**(b)** Write a short note on analysis of twelve pulse converter. 07 (a) Write a short note on voltage dependent current order limit. 0.5 07 **(b)** Write a short note on EAG (extinction angle control). **07** 

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