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M.Tech.

(SEM I) ODD SEMESTER THEORY EXAMINATION, 2015-16

POWER CONVERTER APPLICATIONS

Time: 3 Hours

Maximum Marks:100

Note: *This paper contains eight questions. Attempt any FIVE questions.*

- Q1. Briefly explain the need for compensation in power systems. Explain the types of compensations.
- Q2. Explain the principle of shunt compensation. Describe any one shunt compensator.
- Q3. Explain the basic differences between SVC and STATCOM. Which one is better in providing lagging VAR and how?
- Q4. Explain the constructions of TSSC and FCSC. What are basic differences in their principles?
- Q5. How many types of SMPS converters are their? Explain the operation of the flyback converter.
- Q6. Explain the basic configuration of an uninterruptible power supply?
- Q7. Explain the principle of operation of a resonant power supply. Mention some of it's applications.
- Q8. What are the various types of Renewable energy sources? What are the difficulties in integrating the power produced by them with the conventional grid?