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Total No. of Pages : 01

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M.Tech.(Power System) (2013 & Onwards) (Sem.–1)**FACTS DEVICES AND POWER TRANSMISSION****Subject Code : MTPS-102****Paper ID : [E1362]****Time : 3 Hrs.****Max. Marks : 100****INSTRUCTION TO CANDIDATES :**

1. Attempt any FIVE questions out of EIGHT questions.
2. Each question carries TWENTY marks.

- Q1. Explain the operation of three phase full wave diode rectifier. Draw waveforms also.
- Q2. What is the need of reactive power control in power system? Explain any reactive power compensator.
- Q3. Explain operation of three level converter. Draw its ac output voltage waveforms. Compare shunt and series compensators.
- Q4. Write a note on SSSC and TCSC.
- Q5. a) Explain PWM converter.
b) Compare characteristics of SVC and STATCOM.
- Q6. Explain the objective of FACTS controller in power system. Explain the procedure to locate FACTS controller.
- Q7. Explain harmonics on ac and dc side of converters. What are the problems caused due to these harmonics? Explain active filters.
- Q8. Explain basic operating principle and characteristics of IPFC and its applications