

B. E. Electrical VIII CBSEGS

TOTAL MARKS: 80

N.B: 1) Question No 1 compulsory.

- 2) In all attempt 4 questions.
- 3) Assume suitable data if necessary.
- 4) Draw neat diagram, wherever necessary.

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| 1. a) Explain objective in Load compensation. | 10 MARKS |
| b) Explain basic types of FACTS controllers. | 10 MARKS |
| 2. a) Explain Switching convertor type VAR generator. | 10 MARKS |
| b) Explain fixed capacitor thyristor controlled reactor (TCR). | 10 MARKS |
| 3. a) Draw and explain reactive power characteristic. | 10 MARKS |
| b) Explain voltage and current characteristic of TCR and TCR with fixed capacitor. | 10 MARKS |
| 4. a) Explain Midpoint voltage regulation of line segmentation. | 10 MARKS |
| b) Explain voltage regulator TCVR. | 10 MARKS |
| 5. a) Explain basic operating principle of UPFC. | 10 MARKS |
| b) Explain objective of series compensation. | 10 MARKS |
| 6. a) Draw and explain TSSC | 10 MARKS |
| b) Explain Power Flow and Dynamic Stability Considerations of a Transmission Interconnection | 10 MARKS |
