

SUBJECT CODE NO:- H-1673
FACULTY OF ENGINEERING AND TECHNOLOGY
ME (Electrical Power Systems)
Flexible AC Transmission
(REVISED)

[Time: Three Hours]

[Max.Marks: 80]

Please check whether you have got the right question paper.

- N.B
- 1) Solve any two questions from each Section.
 - 2) Assume suitable data whether necessary.

Section A

- Q.1 a) Why FACTS Technology is called as Flexible? Explain in details. 10
- b) In what way STAT COM is differ from SVC. Explain in details. 10
- Q.2 a) Explain the working and characteristics of “Thyristor Switched series capacitor (TSSC)” with neat sketches. 10
- b) Explain the working of shunt and series controller with neat sketches. 10.
- Q.3 Write short note on any four. 20
- 1) Thyristor controlled series capacitor
 - 2) HVDC and FACTS
 - 3) SSSC
 - 4) Shunt compensator
 - 5) Flow of power in AC system.

Section B

- Q.4 a) Explain the concept of switching converter based voltage and phase angle regulators. 10
- b) How TCBR is used to improve the transient stability? Explain in details. 10
- Q.5 a) Explain the basic operating principle and working of IPFC. 10
- b) What do you mean by hybrid phase angle regulators? What its role in improving the transient stability? 10
- Q.6 Write short notes on any four:- 20
- 1) Subsynchronous resonance
 - 2) UPFC
 - 3) NGH-SSR Damping system
 - 4) Thyristor controlled voltage and phase angle regulators.
 - 5) TCVR