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Total No. of Pages : 02

Total No. of Questions : 09

B.Tech.(EE) (2012 Onwards E-I) (Sem.-6)
FLEXIBLE AC TRANSMISSION SYSTEMS
Subject Code : BTEE-605B
M.Code : 71153

Time : 3 Hrs.

Max. Marks : 60

INSTRUCTION TO CANDIDATES :

1. **SECTION-A** is **COMPULSORY** consisting of **TEN** questions carrying **TWO** marks each.
2. **SECTION-B** contains **FIVE** questions carrying **FIVE** marks each and students have to attempt any **FOUR** questions.
3. **SECTION-C** contains **THREE** questions carrying **TEN** marks each and students have to attempt any **TWO** questions.

SECTION-A**1. Answer the following in short :**

- (a) State objective of series compensation.
- (b) State how TCSC & TCR are duals of each other.
- (c) State the objectives of voltage and phase angle regulators.
- (d) What are the drawbacks of continuously controllable tap changer?
- (e) What do you mean by a generalized FACTS controller?
- (f) Why there is need of hybrid VAR generators?
- (g) What do you mean by carrier frequency?
- (h) What is RI noise?
- (i) What is the basic usage of STATCOM?
- (j) What is the function of phase shifter?

SECTION-B

2. Describe the principle of operation of TCSC.
3. Describe basic operating principle of UPFC.
4. Describe reactive compensation technique.
5. Describe principle of SVC.
6. Describe the FACTS controller.

SECTION-C

7. Compare STATCOM with SVS.
8. Explain with a neat sketch and waveforms the SSSC type of series controller.
9. Explain the generalized technique for harmonic elimination.

NOTE : Disclosure of Identity by writing Mobile No. or Making of passing request on any page of Answer Sheet will lead to UMC against the Student.