PVP 12

Code: EE8T2

IV B.Tech-II Semester–Regular/Supplementary Examinations–April 2017

FLEXIBLE A.C. TRANSMISSION SYSTEMS
(ELECTRICAL & ELECTRONICS ENGINEERING)

Duration: 3 hours Max. Marks: 70

Answer any FIVE questions. All questions carry equal marks

1. a) Why power stations are interconnected? 7 M

   b) Discuses various limits to transmission wire capability. 7 M

2. a) Discuss various types of FACTS controls. 7 M

   b) What are the various purposes for which each type of FACTS controller is used? 7 M

3. a) Describe 3ph full bridge converter by means of a diagram. 7 M

   b) Explain selective harmonic elimination method (SHEM). 7 M

4. a) With neat diagram explain transformer connections for 12pulse 24pulse & 48pulse bridge circuits. 7 M

b) Enumerate advantages & disadvantage of current source and voltage source converters. 7 M

5. a) What is midpoint compensation? 7 M

b) What is voltage instability? How can it be tackled by end of line compensation? 7 M

6. a) Describe the Operation of variable impedance type VAR generators. 7 M

b) Compare & contrast operations of variable impedance and switched converter VAR generators. 7 M

7. a) Compare characteristics of SVC and STATCOM. 7 M

b) Describe how power oscillations are damped using STATCOM? 7 M

8. a) Discuss the operation of TCSC. What are merits & demerits of the scheme? 7 M

b) Describe how series compensation can improve transient stability? 7 M