

Code: EEPC1T2

I M.Tech-I Semester-Regular Examinations-February 2016

**HVDC TRANSMISSION
(POWER SYSTEM CONTROL AND AUTOMATION)**

Duration: 3 hours

Max. Marks: 70

Answer any FIVE questions. All questions carry equal marks

- 1 a) Explain in detail about the power handling capabilities of HVDC line. 8 M
b) Write about static converter. 6 M
- 2 a) Explain the operation of 12 pulse bridge rectifier with neat diagram . 7 M
b) Discuss in detail about AC & DC filters. 7 M
- 3 Explain about the effect of harmonics in HVDC system . Write any two methods of harmonic elimination. 14 M
- 4 Write about
a) Constant extinction angle control 7 M
b) Equidistant firing angle control 7 M

- 5 Discuss the harmonic instability problems in HVDC system. 14 M
- 6 Discuss the control and operation of series and parallel MTDC links. 14 M
- 7 a) What are the AC side line faults. Explain . 7 M
- b) Write about the over voltages due to disturbances in DC side. 7 M
- 8 Write short notes on
- a) Converter faults 5 M
- b) Surge Arresters 5 M
- c) Over current protection 4 M