

Code: EEPC1T2

PVP 12

I M.Tech-I Semester-Regular Examinations-April 2015

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

Duration: 3 hours

Marks: 5x14=70

Answer any FIVE questions. All questions carry equal marks

- 1 a) What are the different applications of D.C. transmission system? Explain them in detail. 7 M
- b) Explain the technological development in control and protection, for better performance and reliability of D.C. transmission system. 7 M
- 2 Explain the individual characteristics of a Rectifier and an Inverter with sketches. 14 M
- 3 With block diagram, discuss the principle of operation of a basic power controller. 14 M
- 4 Explain any one type of
 - a) AC filters. 7 M
 - b) DC filters. 7 M
- 5 a) Briefly write about the interaction between HVAC and DC systems. 7 M

- b) Discuss about DC power modulation. 7 M
- 6 Explain the operation and control of series parallel MTDC links. 14 M
- 7 a) Explain the over voltages caused in a HVDC system. 7 M
- b) Explain about the smoothing reactor in a dc line. 7 M
- 8 a) What are the basic principles of over current protection. 7 M
- b) Discuss the various faults exist in converter station? Explain. 7 M