Total No. of Printed Pages:1

SUBJECT CODE NO:- P-8185

FACULTY OF ENGINEERING AND TECHNOLOGY

M.E. (Electrical Power Systems) Examination May/June 2017

HVDC Transmission

(Revised)

[Time:ThreeHours] **[Max Marks :80]**

Please check whether you have got the right question paper.

N.B i) Solve the two questions From each section.
ii) Assume suitable data wherever necessary.

Section A

Q.1	a. Explain basis configuration of three phase converter. i.e. Graetz Bridge circuit. What are its objectives? Draw its output waveforms.	10
	b. Draw block diagram of current controller. How extinction angle control is achieved in it? Explain.	10
Q.2	a. What are the types of AC Filters? Explain any one in detail.	10
	b. What are the methods of control in MTDC system? Explain any one in detail.	10
Q.3	a. Discuss AC-DC systems in terms of Ac-DC interaction, Analysis & necessity of its modelling.	10
	b. What are the types of basic firing angle schemes? Explain in detail.	10

Section B

Q.4	a. What are the causes and types of overvoltage occur in converter station? How overvoltage protection given in converter station? Explain.	10
	b. What is system simulation? Explain in terms of number of tools required, its requirement & design with number of system studies.	10
Q.5	a. what is non-characteristic harmonic? What are its sources & Causes? Explain effect of firing angle error and unbalanced voltage on it.	10
	b. What is the solution of AC-DC power flow? Explain.	10
Q.6	Solve the three.	20

a. Comparison of AC & DC transmission.
b. Need of PLC-RI filter & its carrier frequency
c. Specify area of application for MTDC system.
d. Use of earth & sea return.