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SUBJECT CODE NO: E-8050
FACULTY OF ENGINEERING AND TECHNOLOGY
M.E. (Electrical Power Systems) Examination Nov/Dec 2017
HVDC Transmission
(Revised)

[Time: Three Hours]

[Max.Marks:80]

Please check whether you have got the right question paper.

N.B

1. All questions are compulsory. Each carries equal marks.
2. Figures to right indicate full marks.

Q.1 Solve any two:

- a. Explain the major components of a HVDC transmission in converter station unit? 10
- b. Draw the schematic circuit diagram of a 6-pulse Graetz circuit and explain its principle of operation? 10
- c. Explain in detail about the converter control characteristics of HVDC system? 10

Q.2 Solve any two:

- a. With neat sketches explain the different kinds of dc link available? 10
- b. What are the basic principles of over current protection? 10
- c. Name types of equidistant pulse control and explain them in detail. 10

Q.3 Solve any two:

- a. What are the types of faults occurred in converter explain them with the help of waveform? 10
- b. Explain protection of MTDC system? 10
- c. Explain the basic concept of DC circuit interruption with figure explain the HVDC circuit breaker, draw waveforms? 10

Q.4 Solve any two:

- a. Discuss the modeling of DC link? 10
- b. Discuss design of single tune filter? 10
- c. Explain reactive power balance in HVDC station? 10