

SECTION-B

2. Derive the mathematical model of a DC converter.
3. What are the basic principles of over current protection?
4. Explain the effect of overlap angle on the performance of converter circuit.
5. Obtain the equivalent circuit for rectifier operation of Graetz circuit.
6. Explain the effect of firing angle errors and unbalanced voltages on the generation of harmonics.

SECTION-C

7. Discuss in detail the effect of source inductance on HVDC systems.
8. What are the different applications of D.C. transmission system? Explain them in detail.
9. Write note on :
 - a. Characteristics of a twelve-pulse converter
 - b. Configuration and planning for HVDC transmission.

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