

Question Bank

Class: Final Year (Electrical & Instrumentation Engineering)

Subject: DC Power Transmission Systems (Subject Code: BTEIEO801D)

1. How to make choice of converter configurations?
2. State different types of converter configurations.
3. Explain importance of power transmission.
4. Enlist Power semiconductor Devices.
5. What are the requirements for the choice of converter configuration?
6. List main components of the HVDC system
7. Define pulse number.
8. Why the necessity of control in a DC link?
9. What is valve utilization factor?
10. What do you mean by CCC and LCC about converters?
11. Define AC transmission system.
12. State TUF meaning
13. Write the advantages and disadvantages of HVDC Transmission.
14. State differences between LCC and CCC
15. Explain Commutation margin angle of 6 pulse LCC
16. What is skin effect in AC Transmission System?
17. Why the necessity of control in a DC link?
18. State different types of DC control link.
19. Define current margin
20. Explain Mono-polar HVDC link for connecting network system.
21. Explain Homo-polar HVDC link for connecting network system.
22. Explain Bi-polar HVDC link for connecting network system.
23. Explain Capacitor Commutated Converter with neat diagram.
24. Explain Applications of HVDC transmission explain LCC with neat diagram
25. Explain Fixed speed Wind Energy Conversion System with neat diagram.
26. Explain **Thyristors-based LCCs** Technology
27. Draw schematic diagram of 12-pulse converter and state the two ways of achieving phase difference of 30° .
28. How can we reduce harmonics in HVDC?
29. Write a short note on Single-Tuned Passive Harmonic Filters.
30. Write a short note on Multi Terminal DC (MTDC) System
31. Draw and explain schematic diagram of a six-pulse Graetz circuit.
32. Explain how Double tuned and damped filter used to reduce harmonics.
33. Draw and Explain HVDC Converter Station.

34. Explain Converter control characteristics
35. Write a short note on Reactive power requirement
36. Draw and explain schematic diagram of a 12 pulse LCC circuit.
37. Explain Fixed speed Wind Energy Conversion System with neat diagram.
38. Explain purpose of transformer in 12 pulse LCC.
39. What is Extinction angle? Explain 3 valve conduction mode of 6 pulse LCC.
40. State mode of operation of 12 pulse LCC.
41. State comparison between AC and Dc transmission system
42. Explain what you mean by non-characteristic harmonics.
43. Discuss difference between single tuned and double tuned filter.
44. State the different components of DC transmission system
45. State the different components of MTDC system.