

POWER ELECTRONICS

Question Bank

1. What is a Diode? Give the difference between power and signal diodes.
2. Discuss transfer and output characteristics of power MOSFET.
3. What is IGBT? Give its basic structural details.
4. Compare MOSFET and BJT.
5. What is SCR? Explain its working in forward conducting mode.
6. Explain the commutation technique of SCR.
7. Explain the series and parallel connection of SCR.

8. What is AC regulator? Find its voltage equation.
9. Explain the working of three phase AC regulator.
10. What is the application of converter in power electronics.
11. Discuss the half and fully controlled converter.
12. Design the circuit of four quadrant converter.
13. What is the advantage of MOSFET based converter.

14. What is an inverter? List a few industrial applications of inverters.
15. What are the two main types of inverters? Distinguish between them.
16. Describe the working of a single phase half-bridge inverter.
17. Describe the McMurry-Bedford half-bridge inverter.
18. What is DC chopper .Describe the various types of choppers.
19. Explain the principle of DC choppers.
20. Discuss the transistor base choppers.

21. Explain the principle of frequency conversion.
22. What are the different types of cycloconverters
23. Discuss the electric drives.
24. Discuss the rotor resistance control.
25. Explain the Scherbius system and static Karmar system.