

**Before going through these questions**

**I suggest you start a document of your own at the beginning of your prep**

**And keep adding questions to it whenever a question pops up in your head.**

**In the last month or so, depending on your convenience have look at all the questions and try to answer them.**

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**Questions (They are very random)**

1. What is the difference between computer organization and computer architecture?
2. Difference between Mealy and Moore, which is better?
3. Watchdog?
4. Booting process of a computer?
5. Booth's Multiplication?
6. FPGA?
7. Layering in IC Design layout?
8. Daemon?
9. 8085, 8086, x86\_64 → Tabulate
10. Interrupt and polling. How will the PC know that you inserted a pendrive?
11. Flash Memory? NAND Flash? NOR Flash?
12. I2C Bus?
13. LVS/DRC ?
14. What is a microprocessor and microcontroller?
15. What is Embedded Programming? What are embedded systems?
16. Pick a favourite topic?
17. Test benches in verilog?
18. What did you do in the microprocessor lab?
19. What is ASIC?
20. Maskable/Non-maskable interrupts?
21. How does SSD work?
22. Difference between parallel programming and concurrent programming?
23. MUX using gates?
24. XOR algebraic expression?
25. Cache improves performance but still the memory holds the upper hand!!!
26. Clock Gating?
27. Machine code, Assembly language, Binary Code?

28. Some assembly instructions?
29. Intel Vs AMD?
30. Blocking Vs Non-Blocking statements in Verilog?
31. Data Hazards, Memory Hazards and Structural Hazards?
32. Fanout, FO4?
33. Testable Design?
34. Clock Dividers?
35. Min/Max Terms?
36. Color of PCB?
37. What is SOC?
38. Approach of designing circuit diagrams?
39. Memory implemented as flip-flops?
40. Clock Tree Synthesis?
41. The concept of decrease in clock speed and increase in number of cores?
42. Heat syncs of a chip?
43. Software interrupt and Hardware interrupt?
44. Frontend and Backend VLSI design?
45. Mirror Flip in the layout?
46. Mirror Symmetry adder circuits?
47. Register Transfer Level coding?
48. HyperThreading?
49. Standard cell???
50. Deep Sub-micron Technology?
51. FinFET process Technology?
52. Verilog vs SystemVerilog?
53. Clock Domain Crossing? Metastability? One hot Encoding?

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- NAND Flash
- SRAM
- DRAM
- Memory Circuit
- 3-D NAND
- EDR/GDR
- EPROM