

Question Bank

1. Explain Gray Code
2. Define RTL. Explain how register transfer takes place in basic computer system.
3. What is a bus? Explain three state buffer.
4. What is computer organization? Explain
5. Explain how complement number system is useful in computer systems. Discuss any one complement number system with example.
6. Explain instruction cycle with flow chart
7. Explain control unit of basic computer.
8. Explain the common bus system.
9. What is machine language? How it differs from assembly language?
10. What is assembly language? Why do we need it ? What is the function of assembler? What is the function of address symbol table?
11. Describe first pass of assembler with its flow chart along with the address symbol table.
12. Explain the working of Second pass of assembler using a flow chart.
13. Write a note on sub routines.
14. Compare hardwired and micro programmed control.
15. What is micro-programmed control architecture? Explain in detail.
16. Explain showing a basic block diagram how control unit of CPU can be designed using micro programmed control.
17. What is micro operation? List and explain its categories.
18. Explain address sequencing using block diagram.
19. List different addressing modes and explain them.
20. What is memory stack? Explain clearly with an example.
21. What is stack? Explain push and pop operation on register stack.
22. Explain data transfer instructions
23. Explain Register Stack and memory stack.

24. Write a short note on DMA
25. Differentiate isolated I/O and Memory mapped I/O.
26. Explain Booth Multiplication Algorithm with example
27. What is cache memory mapping? Explain direct cache memory mapping in detail.
28. Explain memory interleaving
29. Name various CPU organizations and explain any one in detail.
30. What are the various ways to handle branch difficulties? Explain any one in detail.
31. Draw and explain a flowchart of interrupt cycle.
32. What is Flynn's taxonomy? Explain it in brief
33. Write a truth table of three state buffers and explain high impedance state in it with logic symbol diagram.
34. Explain daisy chain arbitration
35. Differentiate between tightly coupled and loosely coupled systems.
36. Explain paging and address translation with example
37. What is cache coherence? Explain in brief.
38. What is cache memory? Explain how it enhances speed of accessing data?
39. What is asynchronous data transfer? Differentiate between strobe control method and handshaking method.
40. Discuss associative mapping and direct mapping in organization of cache memory