IMPORTANT QUESTIONS – COMPUTER ORGANISATION AND ARCHITECTURE

SECTION-A

1. Draw and explain Master Slave Flip Flop.
2. Explain Flynn's classification of computer.
3. Differentiate between edge triggered and level triggered flip-flop
4. Design basic gates with the help of universal gates only.
5. What do you mean by flip flop? Differentiate S-R with J-k flip-flops.
6. Draw and explain the basic block diagram of half adder and full adder.
7. Explain the concept of MIPS and MFLOPS.

SECTION-B

8. Explain the concept of common bus system.
9. Compare and contrast RISC with CISC processors.
10. Explain multi level viewpoint of the machine.
11. Explain different types of addressing modes with example.
12. Explain data transfer, data manipulation and control flow instruction.
13. Define addressing mode. Explain different type of addressing modes with suitable example.
14. Explain the implementation process of Control Unit.

SECTION-C

15. Explain the organization of main memory.
16. What do you mean by cache memory? Draw and explain the block diagram of cache memory.
17. Draw and explain the basic block diagram of 8086.
18. What is the need for memory hierarchy? Compare the main memory with cache memory.
19. What is cache coherence problem? How multiprocessor resolve this problem?
20. Differentiate between hardwired control and micro programmed control.
21. Explain set associative mapping in detail.

SECTION-D

22. Explain stored program concept.
23. What are the various interrupts? Explain.
24. State and explain Amdahl's law.
25. What is micro instruction sequencing? Explain with the help of suitable example.
26. Differentiate between instruction level parallelism and processor level parallelism.
27. What is parallelism? How throughput is enhanced with the help of parallelism?
28. Discuss the basic features of superscaling machine.