Dronacharya College of Engineering, Gurgaon

Department of Electronics and Computers Engineering

Subject: Computer Architecture & Organization (CSE-210-F**)**

Semester: IV/ Branch: ECS

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Important Questions

Section A

1. Explain Flynn's classification of computer.
2. What are flip-flops? For what purpose these are used. Explain the working of JK Flip flop and Master Slave Flip Flop with ckt diagram.
3. What is the stored program concept?
4. Explain MFLOPS and MIPS.
5. What is the multilevel viewpoint of a machine?
6. What is SISD? Explain in detail.
7. What is cache memory?
8. Explain different types of combinational circuit and sequential circuits.
9. Explain different logic gates with neat sketch diagram.
10. Explain bidirectional shift register with parallel load.
11. State and prove De Morgan's theorems. Also, discuss their role in basic building blocks and ckt. design.
12. Explain hardwired Control unit.
13. Explain Micro programmed control unit.

Section B

1. What is RISC architecture? Explain in detail.
2. What is CISC architecture? Explain in detail.

3. Explain the various addressing modes.

4. What is computer instruction (Memory Reference Instructions and Register Reference Instructions?)

5. What are the various types of operations in the instruction set? Explain.

6. Explain the various instruction set formats in detail.

Section C

1. What is the need for memory hierarchy? Explain.
2. Give the fetch-decode-execute cycle in detail.
3. What is an accumulator? Give its functions.
4. What is the purpose of a stack in CPU?
5. What is associative cache organization?
6. What is direct mapped cache organization?
7. Explain the various memory parameters in detail.
8. How does pipelining enhance the performance of operation? Explain.

Section D

1. What is meant by register reference instruction?
2. Explain Amdahl's law in detail.
3. Explain instruction level parallelism in detail.
4. Explain processor level parallelism in detail.
5. Explain instruction cycle with flowchart.
6. What is stack organization?
7. How does parallelism leads to exploitation of concurrency?
8. How is throughput enhanced by the use of parallelism?
9. Explain the micro-instruction formats.