

**COMPUTER ARCHITECTURE AND  
ORGANIZATION  
Paper-CSE-210 F**

Time allowed : 3 hours ] [ Maximum marks : 100

**Note: Question No. 1 is compulsory. Attempt five questions one question from each section.**

1. Write short note on the following : 4×5=20
- (a) MSAM
  - (b) Master-slave flip-flop with its truth table
  - (c) Locality of Reference
  - (d) Interrupts [ersahilkagyan.com](http://ersahilkagyan.com)

**Section-A**

2. What do you mean by a multiplexer ? Describe a  $4 \times 1$  multiplexer using AND, OR and NOR gate ? 20
3. (a) Explain Flynn's classification of computers in detail. 10
- (b) Explain multilevel-viewpoint of a machine. 10

**Section-B**

4. (a) How arithmetic Expressions are evaluated in a stack based CPU ? Explain in detail. 10

- (b) How a computer instruction is executed ? Draw the instruction cycle. 10
5. (a) Explain various types of addressing modes with example. 10
- (b) Explain CISC and RISC with example. 10

### Section-C

6. Define Cache memory ? Explain following mapping with example : [ersahilkagyan.com](http://ersahilkagyan.com) 20
- (a) Associative Mapping
- (b) Direct Mapping
- (c) Set-Associative Mapping.
7. (a) Differentiate between static and Dynamic Random Access memory. 10
- (b) Write short note on 3-stage CPU cycle with the help of example. 10

### Section-D

8. What is parallelism ? Explain various types of parallelism in detail. 20
9. (a) State and Explain Amdahl's Law. 10
- (b) Write short note on memory hierarchy. 10