Roll No. ....

Total Pages : 02

BT-5/D-18.   35116

COMPUTER ORGANIZATION AND ARCHITECTURE
CSE-307N

Time : Three Hours]   [Maximum Marks : 75

Note : Attempt *Five* questions in all, selecting at least *one* question from each Unit. All questions carry equal marks.

Unit I

1. (a) Explain the Digital arithmetic algorithm for addition with example.   8

    (b) Discuss division using non-restoring algorithm with help of flowchart.   7

2. (a) Explain the organization and architecture of a computer system.   8

    (b) Describe Flynn's Classification of computer architecture.   7

Unit II

3. Discuss the following :   15
    (a) Micro programmed control.
    (b) Register reference instructions.

4. What is the difference between an immediate, a direct and an indirect address instructions ? How many references are needed for each type of instructions to bring an operand into a processor register ?   15

Unit III

5. (a) What do you mean by speed up factor in pipelining ? State Amdahl's Law.   8

    (b) What are the characteristics of RISC architecture ? How it is different from CISC architecture ?   7

6. What are the different addressing modes ? Explain with examples. Also list their advantages and disadvantages.   15

Unit IV

7. (a) Write short note on DMA controller and transfer.   8

    (b) What do you mean by input out processor ? Explain.   7

8. Write short notes on the following :
    (a) Asynchronous Serial Transfer   9
    (b) Daising Chaining.   6