

- COA Previous Years
- Structure of Desktop computers
- Logic Gates
- Register Organization
- Bus structure in Computer Organization
- Addressing modes
- Register Transfer Language
- Cache Memory
- Cache Updating Scheme
- Principle of Cache Memory
- Cache Mapping
- Numerical problem on Direct mapping
- How to start with GNU Simulator 8085
- Registers in Assembly Language Programming
- Array in Assembly Language Programming
- Addition and subtraction in fixed point numbers
- Booths Algorithm
- COA Previous Years

## Previous Years Solved

- What is the format of Micro Instruction in Computer Architecture explain ?
- Write a short note on LRU algorithm ?
- Write a short note on Array processors ?
- Write a short note on design of arithmetic unit ?
- Explain the following interfaces in Detail:PCI Bus, SCSI Bus, USB Bus

- What is the layout of pipelined instruction in Computer Architecture ?
- Explain the following interfaces in Detail: PCI Bus, SCSI Bus, USB Bus
- What is Memory Organization ? Discuss different types of Memory Organization in Computer System.
- Briefly explain the concept of pipelining in detail ?
- What is Multiprocessor ? Explain inter process communication in detail ?
- Write short note on improving cache performance methods in detail ?
- Briefly explain the concept of pipelining in detail ?
- What is Multiprocessor ? Explain inter process communication in detail ?
- Explain different modes of data transfer between the central computer and I/O device ?
- Explain how addition and subtraction are performed in fixed point number ?
- Explain the design of arithmetic and logic unit by taking on example ?
- Define the instruction format ? Explain I/O System in detail ?
- Discuss the following in detail: RISC architecture, Vector processing ?
- Explain how a stack organized computer executes instructions? What is Stack?
- Explain hardwired microprogrammed control unit ? What is address sequencer circuit ?
- If cache access time is 100 ns, main memory access time is 1000 ns and the hit ratio is 0.9. Find the average access time and also define hit ratio.
- Explain signed magnitude, signed 1's complement and signed 2's complement representation of numbers. Find the range of numbers in all three representations for 8 bit register.
- Differentiate between Serial and parallel data transfer ?
- What is Paging? Explain how paging can be implemented in CPU to access virtual memory.
- What is Associative memory? Explain the concept of address space and memory space in Virtual memory.

- Draw and explain the memory hierarchy in a digital computer. What are advantages of cache memory over main memory?
- Explain general register organization.
- Draw the functional and structural views of a computer system and explain in detail ?
- Write short notes on
- Explain SIMD array processor along with its architectural diagram ?
- Explain the various pipeline vector processing methods ?
- Define the following: a) Flynn's taxonomy b) Replacement algorithm
- Compare and contrast DMA and I/O processors ?
- Explain arithmetic pipeline ?
- What is mapping? Name all the types of cache mapping and explain anyone in detail.
- Explain arithmetic pipeline ?
- What is mapping? Name all the types of cache mapping and explain anyone in detail.
- Explain any page replacement algorithm with the help of example ?
- What are different addressing modes? Explain them.
- Describe the language features for parallelism ?
- Write short notes on, a) SIMD, b) Matrix multiplication c) Instruction format
- Differentiate: a) Maskable and non-maskable interrupt b) RISC and CISC

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- 02 Booths multiplication algorithm in Hindi Video | Flow Chart | Numerical problems...
- 03 Memory hierarchy in Hindi Video | Level 0,1,2,3,4
- 04 What is CPU in Hindi Video | COA
- 05 Generation of computer in Hindi Video

- 06 Characteristics of computer in Hindi Video
- 07 Limitations of Computer in Hindi Video | COA
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- 11 Addressing modes in Hindi video
- 12 Explain various types of addressing modes in Hindi video | COA previous years
- 13 What is function of control unit? Differentiate hardwired and microprogrammed units in Hindi video
- 14 Take suitable examples and explain 1's and 2's complement of binary numbers in Hindi video
- 15 What do you understand by micro-operation? List types of micro-operation and explain them in Hindi video
- 16 What are the different categories of 8085 instruction set. Give suitable examples for each class in Hindi video
- 17 With the help of suitable diagrams explain simplex, half duplex and full duplex transmission in Hindi video
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- 21 Explain 3 techniques of Cache Mapping and explain them in Hindi video
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- 24 Perform arithmetic operations with binary numbers and negative numbers in

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- 41 DUP operator in Array in Assembly Language Programming
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Fetch, Indirect, Execute, Interrupt in Hindi video

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