- 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 lOOns, 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 l’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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Q1. Write short note on Direct Memory Access (DMA)?

Ans. Click Here. (Hindi Video)

Q2. Describe the Von Neumann Model and explain the functioning of its components?

Ans. Click Here. (Hindi Video)

Q3. Explain various types of addressing modes?

Ans. Click Here. (Hindi Video)

Q4. What is function of Control unit? Differentiate Hardwired and Microprogrammed units?

Ans. Click Here. (Hindi Video)

Q5. Take suitable examples and explain 1’s and 2’s complement of binary numbers?

Ans. Click Here. (Hindi Video)

Q6. What do you understand by micro-operation? List types of micro-operation and explain them?

Ans. Click Here. (Hindi Video)

Q7. What are the different categories of 8085 instruction set ? Give suitable examples for each class.

Ans. Click Here. (Hindi Video)

Q8. With the help of suitable diagrams explain simplex, half duplex and full duplex transmission?

Ans. Click Here. (Hindi Video)

Q9. What is Register Transfer Language (RTL)?

Ans. Click Here. (Hindi Video)

Q10. What is cache memory? Explain following-
i) Cache hit
ii) Average access time

Ans. Click Here. (Hindi Video)

Q11. What is pipelining?

Ans. Click Here. (Hindi Video)

Q12. Name three techniques of cache mapping and explain any one in detail?

Ans. Click Here. (Hindi Video)

Q13. Explain the working of following CPU registers:
i) MAR
ii) MDR
iii) AC
iv) IR
v) PC

Ans. Click Here. (Hindi Video)

Q14. A virtual memory system has an address space of 8K words, a memory space of 4K words and page block sizes of 1K words. The following page reference changes occur during a given time interval. (Only page changes are listed. If the same page is referenced again, it is not listed twice.).
420126140102357
Determine the four pages that are resident in main memory after each page reference change if the replacement algorithm is used-
(i) FIFO
(ii) LRU?

Ans. Click Here. (Hindi Video)

Q15. Perform the arithmetic operations below with binary numbers and with negative numbers in signed 2's complement representation. Use seven bits to accommodate each number together with its sign.
i) (+35) + (+40)
ii) (-35) + (-40)

Ans. Click Here. (Hindi Video)

Q16. What is Instruction Cycle ?

Ans. Click Here. (Hindi Video)

Q17. Differentiate between RISC and CISC.

Ans. Click Here. (Hindi Video)

Q18. Explain the Memory Hierarchy in short ?

Ans. Click Here. (Hindi Video)

Q19. What is Memory organization?

Ans. Click Here. (Hindi Video)

Q20. Differentiate between Simultaneous and Hierarchical access memory organization?

Ans. Click Here. (Hindi Video)

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