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| Sr.No | Theory | Practical |
|  | What is the Architecture of Computer?  Why Study Computer Organization  Difference between Architecture and Organization  Components of Computer and Busses, Structure and Function of computer  The Von Neumann Machine  Structure and Expanded Structure of IAS Computer  Fundamental Computer Elements (Gate and Memory cell)  The Evolution of The Intel X86 Architecture  Computer Components: Top-Level View  Instruction Fetch and Execute  Interrupts and Transfer of Control with Multiple Interrupts  Instruction Cycle with Interrupts  Interconnection structure  CPU Module with signal lines  Memory Module with signal lines  I/O Module with signal lines, Bus Interconnection, Bus Structure  Typical control lines/signals, Multiple-Bus Hierarchies, Traditional bus organization and architecture  High-performance bus organization and architecture, Elements of Bus Design, PCI bus organization and Architecture  Computer Memory Systems, Characteristics of Memory Systems  The Memory Hierarchy  Cache/Main Memory Structure  Cache Read Operation  Typical Cache Organization  Elements of Cache Design  Cache Addresses, Cache Mapping Function, Cache Write Policy  ROM Memory, Design of ROM, Types of ROM  RAM Memory  Design of RAM  Types of RAM | nstalling of MASM compiler  Different commands of MASM compiler  DoxBox Compiler  NASM Compiler  , Syntax of Assembly Language Program  First Assembly Program  MOV & ADD instructions  Logical Vs Physical Addressing, Flag Register  Multiplication, Subtraction and Addition  Jumps and its types |