Physical Address: An address in main memory is called location or physical address.

Proof by Perfect Induction: When a proof is accomplished by the use of the truth table it is called proof by perfect induction.

RAM: The read and write memory (R/W memory) of a computer is called RAM.

Register: Register is group of flip-flops with each flip-flop capable of storing one bit of information.

ROM: ROM stands for "Read Only Memory". Read only memory (ROM) cannot be written into.

Seek Time: Time required to move the read/write head to the addressed track be called seek time.

Sequential Access: Sequential access means that a group of elements is accessed in a predetermined, ordered sequence.

Sequential Circuit: It is a logic circuit whose output at any instant of time depends upon the present external input and memory element connected to logic circuit.

Shift Register: A register capable of shifting its binary information in one or both directions is called shift register.

Static Memories: Memories, which do not require refreshing, are called static memories.

Subcube: A Subcube is a set of exactly 2^m adjacent cells containing 1s.

Sum of Products (SOP): In this form, function is the product of a number of sum terms either in complemented or uncomplemented form.

Sum of Products (SOP): In this form, function is the sum of a number of product terms either in complemented or uncomplemented form.

Synchronous Circuit: Synchronous circuits are the circuits in which output changes at only discrete instant of time.

Truth table: Truth table is a mathematical table which describes output of a logical function in terms of its inputs and for all combinations of different inputs.

Virtual Memory: A virtual memory system provides a mechanism for translating program-generated addresses into correct main memory locations.

Logic Gate: A logic gate is an electronic circuit, which generates an output signal depending on its characteristics and input signals.

Magnetic Disk: A magnetic disk is a surface device. It stores data on its surface. Its surface is divided into circular concentric tracks and each track is divided into sectors.

Magnetic Tape: A magnetic tape drive is a device used for recording data on a cartridge tape.

Main Memory: The memory that communicates directly with the Central Processing Unit (CPU) is called main memory.

Mapping: Mapping is process to discuss possible methods for specifying where memory blocks are placed in the cache.

Maxterm: A sum term which contains each of the n variables in either complemented or uncomplemented form is called a maxterm.

Memory Address Map: It is a pictorial representation of assigned address space for each space in the system.

Memory Cell: A memory cell may be defined as a device which can store a symbol selected from a set of symbols.

Memory Hierarchy: The hierarchical arrangement of storage in computer architectures is called memory hierarchy.

Memory: Memory refers to the physical devices used to store instructions to execute programs or data.

Minterm: A product term which contains all the n variables in either complemented or uncomplemented form is called a minterm.

MOSFET: MOSFET (Metal oxide semiconductor field-effect transistor) is a transistor used for amplifying or switching electronic signals.

Multiplexer: A multiplexer is a device, which allows sharing of a common line by more than one input line.

Optical Disk: Information is written to or read from an optical disk using laser beam. An optical disk has very high storing capacity.

Page Replacement: If a page fault occurs & no real memory page frame is available, operating system has to remove a currently loaded page in order to accommodate new page. This event is called page replacement.

Page: The term page refers to groups of address space of the same size.

Page-Fault: A page-fault occurs if the process references a page that is not memory resident.

Parity: Indicates whether the result contains odd number of 1s or even number of 1s.

Counter: A counter is a sequential circuit whose value is incremented by one, on the occurrence of some event.

De Morgan's Law: The complement of a product of variables is equal to the sum of the complements of the variables or *vice versa*.

Decoder: Decoder is a multiple-input, multiple-output logic circuit that converts coded inputs into coded outputs, where the input and output codes are different.

Demultiplexer: Demultiplexer is circuit that receives information on a single line and transmits information on one of 2^n possible output lines.

DVD: It is also known as Digital Video Disc or Digital Versatile Disc, is optical disc storage media format. Its main uses are video and data storage.

Dynamic Memories: Memories, which require refreshing, are termed as dynamic memories.

Encoders: Encoders perform the reverse operation of decoders. Encoders take 2^n input lines and generate an n-bit binary number on n output lines.

Flip-Flop: A flip-flop is a binary cell, which can store one bit of information.

Full Adder: A full adder is a combinational circuit that performs arithmetic sum of three input bits.

Full-Subtractor: A full-subtractor is a circuit that performs a subtraction between two bits, taking into account borrow of the lower significant stage. This circuit has three inputs and two outputs.

Half Adder: A half adder is a circuit which adds two bits of binary data, producing a sum bit and a carry bit as the two outputs signals.

Half-Subtractor: A half-subtractor is a combinational circuit that subtracts two bits and produces their difference.

Hard Disk: A hard disk stores and provides relatively quick access to large amounts of data on an electromagnetically charged surface or set of surfaces. The hard disk used in the PC is permanently fixed.

Hit Ratio: Hit ratio is the ratio of number of hits divided by the total requests.

Inverter: Complement operation is physically realised by a gate or circuit called an inverter.

Latency Time: Time required to bring the starting position of the addressed sector under the read/write head.

Locality of Reference: Also known as principle of locality is an access pattern that can improve the efficiency of cache.

Logic Circuit: Electric circuits that can establish logical manipulation paths with proper input, is called logic circuit.

Accumulator: An accumulator is a register in which intermediate arithmetic and logic results are stored.

Adder: An adder is a digital circuit that performs addition of numbers.

Address Space: An address used by a programmer will be called a virtual address, and the set of such addresses is the address space.

Associative Memory: Associative memory is a memory that performing searches through content rather than address.

Asynchronous Circuit: In the asynchronous circuits, there is no synchronization and there is no clock pulse generator.

Auxiliary Memory: Auxiliary memory is a high speed memory and is not addressable directly by the central processing unit, and is connected to main memory by high-speed data channel.

Bandwidth: Amount of information that can be transferred in or out of the memory in a second is termed as data transfer rate or bandwidth.

Binary logic: Binary logic is used to describe manipulation and processing of binary information in a mathematical way.

Block: The physical memory is broken down into groups of equal size called blocks.

Boolean Algebra: Boolean algebra is a tool for analysis and design of digital systems.

Boolean Domain: Boolean domain is a set consisting of exactly two elements whose value are false and true like {0, 1}, {false, true} etc.

Boolean Function: Boolean function is a specific Boolean expression like $F_0 = A \cdot B + C$

Cache Hit: If a data item is requested by CPU is found in the cache, it is called a hit.

Cache Memory: Cache Memory provides very fast accessing of data. This is positioned between CPU and main memory to reduce the internal accessing gap or access time between CPU and main memory.

Cache Miss: If the requested data item is not found, it is called a miss.

CD-ROM: CD-ROM (Compact Disk Read Only Memory) is an optical-disk format that is used to hold pre-recorded text, graphics, and sound.

Control Word: A control word is a group of binary bits which are assigned and formatted to perform the specified operation.