# Computer Basics

## Set 1

1. Who is the father of Computers?
a) James Gosling
b) Charles Babbage
c) Dennis Ritchie
d) Bjarne Stroustrup

Answer: b
Explanation: Charles Babbage is known as the father of computers. Charles Babbage designed and built the first mechanical computer and Difference Engine.

2. What is the full form of CPU?
a) Computer Processing Unit
b) Computer Principle Unit
c) Central Processing Unit
d) Control Processing Unit

Answer: c
Explanation: CPU stands for Central Processing Unit. CPU is the part of a computer system that is mainly referred as the brain of the computer.

3. Which of the following computer language is written in binary codes only?
a) pascal
b) machine language
c) C
d) C#

Answer: b
Explanation: Machine Language is written in binary codes only. It can be easily understood by the computer and is very difficult for us to understand. A machine language, unlike other languages, requires no translators or interpreters.

4. Which of the following computer language is written in binary codes only?
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5. Which of the following is the brain of the computer?
a) Central Processing Unit
b) Memory
c) Arithmetic and Logic unit
d) Control unit

Answer: a
Explanation: The CPU is referred to as the brain of a computer.
It consists of a control unit and an arithmetic and logic unit. It is responsible for performing all the processes and operations.

6. Which of the following is not a characteristic of a computer?
a) Versatility
b) Accuracy
c) Diligence
d) I.Q.

Answer: d
Explanation: The Computer system has no I.Q. of its own. It does only what it is programmed to do. It cannot take decisions of its own.
A computer is diligent because it can work continuously for hours without getting any errors or without getting grumbled..

7. Which of the following is the smallest unit of data in a computer?
a) Bit
b) KB
c) Nibble
d) Byte

Answer: a
Explanation: A bit is defined as the smallest unit of data in a computer system. It is used as a short form of Binary Digit. A bit can have only two values 0 or 1. A nibble comprises 4 bits, a byte is a collection of 8 bits whereas KB (Kilobyte) is equal to 1024 bytes.

8. Which of the following is not a type of computer on the basis of operation?
a) Digital
b) Analog
c) Hybrid
d) Remote

Answer: d
Explanation: There are three types of computers basically on the basis of operation: Analog, Digital, and Hybrid.

9. Which of the following monitor looks like a television and are normally used with non-portable computer systems?
a) LED
b) LCD
c) CRT
d) Flat Panel Monitors

Answer: c
Explanation: A CRT (or the Cathode Ray Tube) Monitor looks like a television ideally. The flat-panel monitors are thinner and lighter in comparison..

10. Which of the following is designed to control the operations of a computer?
a) User
b) Application Software
c) System Software
d) Utility Software

Answer: c
Explanation: Software is basically classified into two: System and application. System Software is designed to control the operations and extend the processing capability of a computer system.

## Set 2

1. The most commonly used input device is
a) Mouse
b) Keyboard
c) Scanner
d) Printer

Answer: b
Explanation: Keyboard is the most commonly used input device.

2. Which keys allows user to enter frequently used operations in a single key stroke?
a) Function keys
b) Cursor control keys
c) Trackball
d) Control keys

Answer: a
Explanation: Function keys are used to access frequently used areas.

3. _____ are used to measure dial rotations.
a) Potentiometers
b) Volta meter
c) Parameter
d) Only a

Answer: d
Explanation: Potentiometer measures the dial rotations.

4. The device which is used to position the screen cursor is
a) Mouse
b) Joystick
c) Data glove
d) Both a and c

Answer: a
Explanation: A mouse is small hand-held box used to position the screen cursor.

5. _____ is used for detecting mouse motion.
a) Optical sensor
b) Rollers on the bottom of mouse
c) Both a and b
d) Sensor

Answer: c
Explanation: Rollers and optical sensors are used to record the amount and direction of movement.

6. Trackball is
a) Two-dimensional positioning device
b) Three- dimensional positioning device
c) Pointing device
d) None of the mentioned

Answer: a
Explanation: Trackball is two-dimensional positioning device.

7. Space ball provide_____ degree of freedom.
a) 10 degree
b) 6 degree
c) 8 degree
d) 12 degree

Answer: b
Explanation: Space ball provide 6 degree of freedom.

8. Which is the ball that can be rotated with the fingers or palm of the hand?
a) Space ball
b) Trackball
c) Only a
d) Both b and c

Answer: b
Explanation: Trackball is a ball that can be rotated with the fingers or palm of the hand.

9. _____ is used for 3D positioning and modeling, animation and other application.
a) Space ball
b) Trackball
c) Spac ball
d) All of the mentioned

Answer: a
Explanation: Space ball is a 3D positioning device.

10. Potentiometers mounted at the base of the joystick measures
a) The amount of movement
b) The direction
c) Position
d) Resolution

Answer: a
Explanation: Potentiometers mounted at the base of the joystick measures the amount of movement.

## Set 3

1. Input Devices that use a special ink that contains magnetizable particles of iron oxide are ____
a) Optical disks
b) Magnetic disks
c) MICR
d) Magnetic drives

Answer: c
Explanation: MICR reads data on cheques and sorts them for distribution to other banks or for further processing. MICR stands for Magnetic-Ink-Character Recognition.

2. MICR character set consists of only 2 digits 0 and 1.
a) True
b) False

Answer: b
Explanation: The statement is false. It consists of numerals from 0 to 9 and 4 special characters. It supports only 14 symbols.

3. A printer that prints one line at a time and has a predefined set of characters is called _____
a) Laser
b) Drum
c) Inkjet
d) Impact

Answer: b
Explanation: The drum printers print one line at a time. They have a cylindrical drum with characters embossed on its surface in the form of circular bands.

4. Which of the following is a name of plotter as well as a printer?
a) Flatbed
b) Laser
c) Drum
d) Impact

Answer: c
Explanation: Drum is the name of a plotter as well as a printer. Drum printers have a predefined set of characters and print one line at a time. Drum plotters is an ideal device for architects and others who need to generate high-precision hard copy graphics output of widely varying sizes.

5. Name the device that converts text information into spoken sentences.
a) Speech Sensors
b) Compact convertors
c) Speech Synthesizers
d) Voice systems

Answer: c
Explanation: A speech synthesizer converts text information into spoken sentences. It is used for reading out text information to blind people. Allowing people to communicate effectively.

6. Which of the following is not a part of a digitizer?
a) Digitizing tablet
b) Cursor
c) Stick
d) Stylus

Answer: c
Explanation: A digitizer consists of a digitizing tablet, a stylus in the form of a cross-hair cursor. A digitizer is used in the areas of GIS.

7. Which is the device used for converting maps, pictures and drawings into digital form for storage in computers?
a) Digitizer
b) Scanner
c) Image Scanner
d) MICR

Answer: a
Explanation: A digitizer serves the purpose given in the question. Digitizers are generally used in the area of Computer Aided Design by architects and engineers to design cars, buildings, etc.

8. The process in which a file is partitioned into smaller parts and different parts are stored in different disks is called _____
a) RAID
b) Mirroring
c) Stripping
d) RAID classification

Answer: c
Explanation: Enhanced reliability is achieved by using techniques like mirroring and stripping in case of disk arrays. Stripping is the division of a large file into smaller parts and then storing them on different disks.

9. Which of the following Printers have a speed in the range of 40-300 characters per second?
a) Inkjet
b) Laser
c) Dot matrix
d) Drum

Answer: a
Explanation: The inkjet printers are non-impact printers. Hence, they cannot produce multiple copies of a document in a single printing. Can be both monochrome and color.

10. Which of the following is a temporary output?
a) Hard copy
b) Soft copy
c) Duplicate copy
d) On paper

Answer: b
Explanation: There are only two types of outputs: hard copy and soft copy. Soft copy output is temporary and vanishes after use. Hard copy output is permanent in nature and can be kept in paper files, etc.

## Set 4

1. The ‘heart’ of the processor which performs many different operations _____
a) Arithmetic and logic unit
b) Motherboard
c) Control Unit
d) Memory

Answer: a
Explanation: The Arithmetic and logic unit performs all the basic operations of the computer system. It performs all the arithmetic(+,-,*,/,etc) as well as the logical operations( AND, OR, NOT, etc.).

2. ALU is the place where the actual executions of instructions take place during the processing operation.
a) True
b) False

Answer: a
Explanation: ALU is a combinational electronic circuit which basically performs all the logical or the bitwise operations and the arithmetic operations. Therefore, it is the place where the actual executions of instructions take place.

3. Which of the following is not a bitwise operator?
a) |
b) ^
c) .
d) <<

Answer: c
Explanation: All except the dot(.) operator are bitwise operators.
| : Bitwise OR
^ : Bitwise XOR
<< : Shift Left

4. The sign magnitude representation of -1 is _____
a) 0001
b) 1110
c) 1000
d) 1001

Answer: d
Explanation: The first leftmost bit i.e. the most significant bit in the sign magnitude represents if the number is positive or negative. If the MSB is 1, the number is negative else if it is 0, the number is positive. Here, +1=0001 and for -1=1001.

5. IEEE stands for _____
a) Instantaneous Electrical Engineering
b) Institute of Emerging Electrical Engineers
c) Institute of Emerging Electronic Engineers
d) Institute of Electrical and electronics engineers

Answer: d
Explanation: The IEEE is an organization of professionals in the field of electronics and electrical engineering.

6. The ALU gives the output of the operations and the output is stored in the _____
a) Memory Devices
b) Registers
c) Flags
d) Output Unit

Answer: b
Explanation: Any output generated by the ALU gets stored in the registers. The registers are the temporary memory locations within the processor that are connected by signal paths to the CPU.

7. The process of division on memory spaces is called _____
a) Paging
b) Segmentation
c) Bifurcation
d) Dynamic Division

Answer: b
Explanation: The memory space is divided into segments of dynamic size. The programmer is aware of the segmentation and can reallocate the segments accordingly.

8. Number of bits in ALU is _____
a) 4
b) 8
c) 16
d) 2

Answer: c
Explanation: Arithmetic and Logic Unit consists of 16bits. They perform certain Arithmetic and bitwise operations (add, subtract, AND, OR, XOR, Increment, decrement, shift).

9. Which flag indicates the number of 1 bit that results from an operation?
a) Zero
b) Parity
c) Auxiliary
d) Carry

Answer: b
Explanation: The parity flag indicates the number of 1 bit in any operation. The resultant bit is called the parity bit. The main aim of the parity bit is to check for errors.

10. The bitwise complement of 0 is _____
a) 00000001
b) 10000000
c) 11111111
d) 11111110

Answer: c
Explanation: Bitwise complement is basically used to convert all the 0 digits to 1 and the 1s to 0s.
So, for 0 = 00000000(in 8-bits) ::: 11111111(1s complement). The bitwise complement is often referred to as the 1s complement.

## Set 5

1. Components that provide internal storage to the CPU are _____
a) Registers
b) Program Counters
c) Controllers
d) Internal chips

Answer: a
Explanation: The Registers are the fast storage units. They are responsible for storing intermediate computational results in the CPU. The registers can be user accessible or inaccessible.

2. Saving data and instructions to make them readily available is the job of _____
a) Storage Unit
b) Cache Unit
c) Input Unit
d) Output Unit

Answer: a
Explanation: The storage unit is responsible for storing the data. It makes the instructions readily available for additional or initial processing whenever required.

3. The first practical form of Random Access Memory was the _____
a) SSEM
b) Cathode Ray Tube
c) William's Tube
d) Thomas's Tube

Answer: c
Explanation: The first practical form of RAM was William's Tube made in 1947. It stored data as electrically charged spots on the face of a Cathode Ray Tube.

4. Which of the following is used to hold running program instructions?
a) Primary Storage
b) Virtual Storage
c) Internal Storage
d) Minor Devices

Answer: a
Explanation: The primary storage is responsible for holding the data, intermediate results and the results of ongoing processes or jobs. Virtual storage is the main memory storage required for saving a large amount of data for future reference. The other options are invalid.

5. Which of the following is non-volatile storage?
a) Backup
b) Secondary
c) Primary
d) Cache

Answer: b
Explanation: The secondary storage is the non-volatile storage unit because the data is not lost when the power supply is dissipated. Primary memory is the volatile memory.

6. Which of the following is used in main memory?
a) SRAM
b) DRAM
c) PRAM
d) DDR

Answer: b
Explanation: DRAM stands for dynamic random access memory. It is denser than SDRAM (Static) and therefore it is used in the main memory. They are in the form of semiconductor RAMs.

7. Which of the following are types of ROMs?
a) SROM & DROM
b) PROM & EPROM
c) Only one type there is no further classification
d) PROM & EROM

Answer: b
Explanation: There are two types of Read Only Memories: PROM i.e., Programmable ROM & EPROM i.e., Erasable Programmable ROM. When only a small number of ROMs with a particular memory content is needed, PROM is used and in case of EPROM.

8. RAID stands for _____
a) Redundant array of independent disks
b) Redundant array of individual disks
c) Reusable Array of independent disks
d) Reusable array of individual disks

Answer: a
Explanation: RAID is a multiple-disk database design which is viewed as a single logical disk by the operating system. Data are distributed across the physical drives of the array. It guarantees the recovery of data in case of data failure.

9. A non-erasable disk that stores digitized audio information is _____
a) CD
b) CD-ROM
c) DVD-R
d) DVD-RW

Answer: a
Explanation: A compact disk stores digitized audio information. The standard system uses 12 cm disks and can record more than 60 minutes of uninterrupted playing game.

10. Which of the following computers are lower than mainframe computers in terms of speed and storage capacity?
a) Mainframes
b) Hybrid
c) Mini
d) Super

Answer: c
Explanation: The answer is a. Mini computers are compared to mainframe computers in terms of:
1. speed and, 2. storage capacity.

## Set 6

1. _____ is the raw material used as input and _____ is the processed data obtained as output of data processing.
a) Data, Instructions
b) Instructions, Program
c) Data, Program
d) Program, Code

Answer: a
Explanation: Data can be assumed as a raw material which, in turns after processing gives the desired output in the form of instructions. Further, a set of ordered and meaningful instructions is known as a program.

2. Which of the following is not a characteristic of a computer?
a) Diligence
b) I.Q.
c) Accuracy
d) Versatility

Answer: b
Explanation: The Computer system has no I.Q. of its own. It does only what it is programmed to do. It cannot take decisions of its own.
A computer is diligent because it can work continuously for hours without getting any errors or without getting grumbled.

3. A decoder is required in case of a _____
a) Vertical Microinstruction
b) Horizontal Microinstruction
c) Multilevel Microinstruction
d) All types of microinstructions

Answer: a
Explanation: There are two types of microinstructions: Horizontal and Vertical.
In a horizontal microinstruction, each bit represents a signal to be activated whereas, in case of vertical microinstruction bits are decoded and, the decoder then produces signals.

4. The part of a processor which contains hardware necessary to perform all the operations required by a computer:
a) Data path
b) Controller
c) Registers
d) Cache

Answer: a
Explanation: A processor is a part of the computer which does all the data manipulation and decision making. A processor comprises of:
A data path which contains the hardware necessary to perform all the operations. A controller tells the data path what needs to be done.
The registers act as intermediate storage for the data.

5. What does MAR stand for?
a) Main Address Register
b) Memory Access Register
c) Main Accessible Register
d) Memory Address Register

Answer: d
Explanation: MAR is a type of register which is responsible for the fetch operation. MAR is connected to the address bus and it specifies the address for the read and write operations.

6. If the control signals are generated by combinational logic, then they are generated by a type of _____ controlled unit.
a) Micro programmed
b) Software
c) Logic
d) Hardwired

Answer: d
Explanation: The main task of a control unit is to generate control signals. There are two main types of control units:
A hardwired control unit generates control signals by using combinational logic circuits and the Micro programmed control unit generates control signals by using some softwares.

7. Which is the simplest method of implementing hardwired control unit?
a) State Table Method
b) Delay Element Method
c) Sequence Counter Method
d) Using Circuits

Answer: a
Explanation: There are 3 ways of implementing hardwired control unit:
A state table is the simplest method in which a number of circuits are designed based on the cells in the table.

8. A set of microinstructions for a single machine instruction is called _____
a) Program
b) Command
c) Micro program
d) Micro command

Answer: c
Explanation: For every micro-operation, a set of microinstructions are written which indicate the control signals to be activated. A set of microinstructions is a micro program. The address of the next microinstruction is given by a Micro-program counter.

9. Which of the following is the first neural network computer?
a) AN
b) AM
c) RFD
d) SNARC

Answer: d
Explanation: SNARC was the first neural network computer. it was built by Minsky and Edmonds in 1956.