COMPUTER

- KonradZuse invented the World's first computer was named as the Z1 in 1936. It was the First freely programmable computer.

- The first computer game was "Spacewar!". This game was programmed by Steve Russell and first released in February 1962.

- Jack Kilby& Robert Noyce develop the first Integrated Circuit (The Chip) in 1958

- In 1954 John Backus & IBM develop first successful high level programming language FORTRAN Computer Programming Language

- ARPAnet the first Internet connectivity started in 1969.

- WordStar Software is the first release of Word Processors application developed by Seymour Rubenstein & Rob Barnaby in 1979.

- Apple Lisa Computer is the first home computer with a GUI (graphical user interface) in 1983

- The first web browser was invented by Sir Tim Berners-Lee in 1990. It was called WorldWideWeb (no spaces) and was later renamed Nexus.

- The first search engine created was Archie, in 1990 by Alan Emtage, a student of McGill University in Montreal.

- On Aug. 6, 1991, Tim Berners-Lee published the first internet site from CERN, the world's largest physics lab in Geneva, Switzerland.

- The first supercomputer was the Control Data Corporation (CDC) 6600 with a single CPU. It was released in 1964.

- India's first supercomputer is PARAM 8000, which was installed in 1991.

- NVIDIA's Tesla computer was launched in London in December 2008 is first personal supercomputer.

- The first banner advertising was used in 1994.

- The E-mail is older than the World Wide Web.

- The first domain name ever registered was Symbolics.com.

- Rich Skrenta generated the first computer virus in February 1982. He is the author of Elk Cloner, the first computer virus to be released outside of the lab.

- The first version of Excel was released for the Mac in 1985 and the first Windows version was released in November 1987.

- Nobody can create a folder named "Con" in windows system.

- TYPEWRITER is the longest word that can be made using the letters only on one row of the keyboard

- Each Excel worksheet holds 1,048,576 rows and 16, 384 columns which makes 17,179,869,184 cells per worksheet.

Memory Units:

4 bit = 1 nibble
8 bit = 1 byte
1024 B = 1 KB (Kilo Byte)
1024 KB = 1 MB (Mega Byte)
1024 MB = 1 GB (Giga Byte)
1024 GB = 1 TB (Tera Byte)
1024 TB = 1 PB (Peta Byte)
1024 PB = 1 XB (Exa Byte)
1024 XB = 1 ZB (Zeta Byte)
1024 ZB = 1 YB (Yota Byte)

bit < Byte < KB < MB < GB < TB < PB < XB < ZB < YB

- bit (b)
- Byte (B)

Mbps – mega bits per sec.
MBps – mega Bytes per sec.

- The information you put into the computer is called Data
- Information of a computer is stored as Digital Data
- A number system defines a set of values that is used to represent Quantity
- In which number system, the modern computers are operated?

Binary Number System

- Name the most significant bit, which represent 1 and 0 for a positive number and negative number, respectively.

Sign Bit

- Which coding scheme represents data in a binary form in the computer system? ASCII, EBCDIC and Unicode are the most commonly used codes under this scheme.

Binary Coding Scheme

- EBCDIC is a 8-Bit code with 256 different representations of characters. It is mainly used in mainframe computers.
- EBCDIC stands for Extended Binary Coded Decimal Interchange Code
- In the Hexadecimal Number System each number represents a power of 16. To represent the decimal numbers, this system uses numbers from 0 to 9 and characters from A to F to represent numbers 10-15, respectively. It is commonly used as a shortcut notation for groups of four binary digits
- BCD is a method that represents the decimal digits with the help of binary digits. It takes advantage that one decimal numeral can be represented by 4-bit pattern. BCD stands for Binary Coded Decimal
- This coding system is used to represent the interval storage area of the computers. In this system, every character is represented by a combination of bits. Binary Coding System
- The Base or Radix of the decimal number system is 10
- The arithmetic operations (addition, subtraction, multiplication and division) performed on the binary numbers is called Binary Arithmetic
- What is the standard code the computer industry created to represent characters? American Standard Code for Information Interchange (ASCII)
- ASCII is a code used for standardizing the storage and transfer of information amongst various computing devices.
- It is required for representing more than 64 characters. At present, the mostly used coding systems are ASCII and EBCDIC
- Which code is also known as Reflected Code? Gray Code
- The 7-bit ASCII code is widely used for Two (0 or 1)
- In the binary language, each letter of the alphabet, each number and each special character is made up of a unique combination of Eight Bits.

GENERATIONS OF COMPUTER

- Which was the first general purpose computer, designed to handle both numeric and textual information? Universal Automatic Computer (UNIVAC) (1951)

First Generation (1940-1956) Vacuum Tubes:

- The first computers used vacuum tubes for circuitry and magnetic drums for memory, and were often enormous, taking up entire rooms.
- The UNIVAC and ENIAC computers are examples of first-generation computing devices.
- In first generation of computer, this operating system allowed only one program to run at a time and a number of input jobs are grouped for processing. It is known as Batch Processing.

Second Generation (1956-1963) Transistors:

- Transistors replaced vacuum tubes and ushered in the second generation of computers.

Third Generation (1964-1971) Integrated Circuits:

- The development of the integrated circuit was the hallmark of the third generation of computers. Transistors were miniaturized and placed on silicon chips, called semiconductors, which drastically increased the speed and efficiency of computers.

Fourth Generation (1971-Present) Microprocessors:

- The microprocessor brought the fourth generation of computers, as thousands of integrated circuits were built onto a single silicon chip.
- What in the first generation filled an entire room could now fit in the palm of the hand
- Fourth generation computers also saw the development of GUIs, the mouse and handheld devices

Fifth Generation (Present and Beyond) Artificial Intelligence:

- Fifth generation computing devices, based on artificial intelligence, are still in development, though there are some applications, such as voice recognition, that are being used today.
- In 1981 IBM introduced its first computer for the home user, and in 1984 Apple introduced the Macintosh.

Up to last 100 actions can be undo in excel.

- _GOOGLE :_ Global Organization Of Oriented Group Language Of Earth .
- _YAHOO :_ Yet Another Hierarchical Officious Oracle .
- _WINDOW :_ Wide Interactive Network Development for Office work Solution
- _COMPUTER :_ Common Oriented Machine Particularly United and used under Technical and Educational Research.
- _VIRUS :_ Vital Information Resources Under Siege .
- _UMTS :_ Universal Mobile Telecommunications System .
- _AMOLED:_ Active-matrix organic light-emitting diode
- _OLED :_ Organic light-emitting diode
- _IMEI:_ International Mobile Equipment Identity .
- _ESN:_ Electronic Serial Number .
- _UPS:_ uninterrupted power supply .
- _HDMI:_ High-Definition Multimedia Interface
- _VPN:_ virtual private network
- _APN:_ Access Point Name
- _SIM:_ Subscriber Identity Module
- _LED:_ Light emitting diode.
- _DLNA:_ Digital Living Network Alliance
- _RAM:_ Random access memory.
- _ROM:_ Read only memory.
- _VGA:_ Video Graphics Array
- _QVGA:_ Quarter Video Graphics Array
- _WVGA:_ Wide video graphics array.
- _WXGA:_ Wide screen Extended Graphics Array
- _USB:_ Universal serial Bus
- _WLAN:_ Wireless Local Area Network
- _PPI:_ Pixels Per Inch
- _LCD:_ Liquid Crystal Display.
- _HSDPA:_ High speed down-link packet access.
- _HSUPA:_ High-Speed Uplink Packet Access
- _HSPA:_ High Speed Packet Access
- _GPRS:_ General Packet Radio Service
- _EDGE:_ Enhanced Data Rates for Global Evolution
- _NFC:_ Near field communication

- ***OTG:*** on-the-go
- ***S-LCD:*** Super Liquid Crystal Display
- ***O.S:*** Operating system.
- ***SNS:*** Social network service
- ***H.S:*** HOTSPOT
- ***P.O.I:*** point of interest
- ***GPS:*** Global Positioning System
- ***DVD:*** Digital Video Disk / digital versatile disc
- ***DTP:*** Desk top publishing.
- ***DNSE:*** Digital natural sound engine .
- ***OVI:*** Ohio Video Intranet
- ***CDMA:*** Code Division Multiple Access
- ***WCDMA:*** Wide-band Code Division Multiple Access
- ***GSM:*** Global System for Mobile Communications
- ***WI-FI:*** Wireless Fidelity
- ***DIVX:*** Digital internet video access.
- ***APK:*** authenticated public key.
- ***J2ME:*** java 2 micro edition
- ***DELL:*** Digital electronic link library.
- ***ACER:*** Acquisition Collaboration Experimentation Reflection
- ***RSS:*** Really simple syndication
- ***TFT:*** thin film transistor
- ***AMR:*** Adaptive Multi- Rate
- ***MPEG:*** moving pictures experts group
- ***IVRS:*** Interactive Voice Response System
- ***HP:*** Hewlett Packard-Gauri

Computer - Some Important Abbreviations

A

- AI – Artificial intelligence
- ALGOL – Algorithmic Language
- ARP – Address resolution Protocol
- ASCII – American Standard Code for Information Interchange

B

- BINAC - Binary Automatic Computer
- BCC – Blind Carbon Copy
- Bin – Binary
- BASIC - Beginner's All-purpose Symbolic Instruction Code
- BIOS – Basic Input Output System
- Bit – Binary Digit
- BSNL – Bharat Sanchar Nigam Limited

C

- CC – Carbon Copy
- CAD – Computer Aided Design

- COBOL – Common Business Oriented Language
- CD – Compact Disc
- CRT – Cathode Ray Tube
- CDR – Compact Disc Recordable
- CDROM – Compact Disc Read Only Memory
- CDRW – Compact Disc Rewritable
- CDR/W – Compact Disk Read/Write

D

- DBA – Data Base Administrator
- DBMS – Data Base Management System
- DNS – Domain Name System
- DPI – Dots Per Inch
- DRAM – Dynamic Random Access Memory
- DVD – Digital Video Disc/Digital Versatile Disc
- DVDR – DVD Recordable
- DVDROM – DVD Read Only Memory
- DVDRW – DVD Rewritable
- DVR – Digital Video Recorder
- DOS – Disk Operating System

E

- EBCDIC – Extended Binary Coded Decimal Interchange Code
- e-Commerce – Electronic Commerce
- EDP – Electronic Data Processing
- EEPROM – Electrically Erasable Programmable Read Only Memory
- ELM/e-Mail – Electronic Mail
- ENIAC - Electronic Numerical Integrator and Computer
- EOF - End Of File
- EPROM - Erasable Programmable Read Only Memory
- EXE - Executable

F

- FAX - Far Away Xerox/ facsimile
- FDC - Floppy Disk Controller
- FDD - Floppy Disk Drive
- FORTRAN - Formula Translation
- FS - File System
- FTP - File Transfer Protocol

G

- Gb - Gigabit
- GB - Gigabyte
- GIF - Graphics Interchange Format
- GSM - Global System for Mobile Communication

H

- HDD - Hard Disk Drive
- HP - Hewlett Packard
- HTML - Hyper Text Markup Language
- HTTP - Hyper Text Transfer Protocol

I

- IBM - International Business Machine
- IM - Instant Message
- IMAP - Internet Message Access Protocol
- ISP - Internet Service Provider

J

- JPEG - Joint Photographic Experts Group

K

- Kb - Kilobit
- KB - Kilobyte
- KHz - Kilohertz
- Kbps - Kilobit Per Second

L

- LCD – Liquid Crystal Display
- LED – Light Emitting Diode
- LPI – Lines Per Inch
- LIS – Large Scale Integration

M

- Mb – Megabit
- MB – Megabyte
- MPEG – Moving Picture Experts Group
- MMS – Multimedia Message Service
- MICR – Magnetic Ink Character reader
- MIPS – Million Instructions Per Second

N

- NIC – Network Interface Card
- NOS – Network Operating System

O

- OMR – Optical Mark Reader

- OOP – Object Oriented Programming
- OSS – Open Source Software

P

- PAN – Personal Area Network
- PC – Personal Computer
- PDA - Personal Digital Assistant
- PDF – Portable Document Format
- POS – Point Of Sale
- PNG - Portable Network Graphics
- PPM – Pages Per Minute
- PPP – Point-to-Point Protocol
- PROM – Programmable Read Only Memory
- PSTN – Public Switched Telephone Network
- POST – Power On Self Test
- PING – Packet Internet Gopher

R

- RAM – Random Access Memory
- RDBMS – Relational Data Base Management System
- RIP – Routing Information Protocol
- RTF – Rich Text Format

S

- SMTP – Simple Mail Transfer Protocol
- SQL – Structured Query Language
- SRAM – Static Random Access Memory
- SNMP – Simple Network Management Protocol
- SIM – Subscriber Identification Module

T

- TCP – Transmission Control Protocol
- TB – Tera Bytes

U

- UPS – Uninterrupted Power Supply
- URI – Uniform Resource Identifier
- URL – Uniform Resource Locator
- USB - Universal Serial Bus
- ULSI - Ultra Large Scale Integration
- UNIVAC - Universal Automatic Computer

V

- VAR – Variable
- VGA – Video Graphics Array
- VSNL – Videsh Sanchar Nigam Limited
- VDU – Visual Display Unit

W

- Wi-Fi – Wireless Fidelity
- WLAN – Wireless Local Area Network
- WPA – Wi-Fi Protected Access
- WWW – World Wide Web
- WORM – Write Once Read Many

X

- XHTML – eXtensible Hyper text Markup Language
- XML - eXtensible Markup language

Z

- ZB – Zeta Byte

Some other Important Abbreviations -

- **OCR -** Optical Character Readers
- **ODBC -** Open Data Base Connectivity
- **OLE -** Object Linking And Embedding
- **OMR -** Optical Mark Reader
- **ONE** - Open Network Architecture
- **OOA -** Object Orient Analysis
- **OOAD -** Object Oriented Analysis And Design
- **OOP -** Object Oriented Programming
- **OOPS -** Object Oriented Programming System
- **OPEN GL -** Open Graphics Library
- **OS -** Operating System
- **OSI -** Open System Interconnection
- **PC -** Personal Computer
- **PCI -** Peripheral Component Interconnect
- **PCMCIA -** Personal Computer Memory Card International Association
- **PDA - P**ersonal Digital Assistant
- **PDF -** Portable Document Format
- **PDL -** Page Description Language

- **PDU -** Protocol Data Unit
- **PIC - P**rogramming Interrupt Control
- **PILOT -** Programmed Inquiry Learning Or Teaching
- **PLA -** Programmable Logic Array
- **PLC -** Programmable Logic Controller
- **PNG -** Portable Network Graphics
- **PNP -** Plug And Play
- **PPP -** Peer To Peer Protocol
- **PPTP -** Point To Point Tunneling Protocol
- **PROM -** Programmable Read Only Memory
- **PS -** Post Script
- **RADSL -** Rate Adaptive Digital Subscribes Line
- **RAID -** Redundant Array Of Independent Disks
- **RAM -** Random Access Memory
- **RAMDAC -** Random Access Memory Digital To Analog Converter
- **RAS -** Remote Access Network
- **RD RAM -** Rambus Dynamic Random Access Memory
- **RDBMS -** Relational Data Base Management System
- **RDO -** Remote Data Objects
- **RDP -** Remote Desktop Protocol
- **RFC -** Request For Comments
- **RGB -** Red Green Blue
- **RICS -** Reduced Instruction Set Computer
- **RIP -** Raster Image Processor
- **RISC -** Reduced Instruction Set Computer
- **ROM** - Read Only Memory
- **RPC -** Remote Procedure Call
- **RTC** - Real Time Clock
- **RTF -** Rich Text Format
- **RTOS -** Real Time Operating System
- **SACK** - Selective Acknowledgements
- **SAM -** Security Access Manager
- **SAP -** Service Access Point, Systems ApplicationsProducts
- **SCMP -** Software Configuration Management Plan
- **SD RAM -** Synchronous Dynamic Random AccessMemory
- **SDD - S**oftware Design Description
- **SDK -** Software Development Kit
- **SDL -** Storage Definition Language
- **SDN -** Integrated Service Digital Network
- **SDSL -** Symmetric Digital Subscribes Line
- **SG RAM -** Synchronous Graphics Random AccessMemory
- **SGML -** Standard Generalized Markup Language
- **SIM -** Subscriber Identification Module
- **SIMD -** Single Instruction Multiple Data
- **SISD -** Single Instruction Single Data
- **SIU - S**erial Interface Unit
- **SMP -** Symmetric MultiProcess
- **SMS -** Short Message Service
- **SMTP -** Simple Mail Transfer Protocol
- **SNA -** System Network Architecture
- **SNAP** - Sub Network Access Protoco

- **ISNMP -** Simple Network Management Protocol
- **SNOBOL** - String Oriented Symbolic Language
- **SOAP -** Simple Object Access Protocol
- **SPX -** Sequenced Packet Exchange
- **SQA -** Statistical Quality Assurance
- **SQL -** Structured Query Language
- **SRAM** - Static Random Access Memory
- **SRS -** Software Requirements Specification
- **STP -** Shielded Twisted Pair
- **SVVP** - Software Verification And Validation Plan
- **SW -** Software
- **TAPI -** Telephony Application Program Interface
- **TB -** Tera Bytes
- **TCP** - Transmission Control Protocol
- **TCPIP -** Transmission Control Protocol InternetProtocol
- **TDI -** Transport Data Interface
- **TDMA** - Time Division Multiple Access
- **TPM** - Transactions Processing Monitor
- **TSR -** Terminate And Stay Residents
- **UDD -** User Datagram Protocol
- **UDP** - User Datagram Protocol
- **UI -** User Interface
- **UML -** Unified Modelling Language
- **UNC** - Universal Naming Convention
- **UNIX** - Uniplexed Information And ComputerSystems
- **URL** - Universal Resource Locator
- **USB** - Universal Serial Bus
- **USRT -** Universal Synchronous ReceiverTransmitted
- **UTP -Un**shielded Twisted Pair
- **VAN -** Virtual Area Network
- **VAST -** Very Small Aperture Terminal
- **VB -** Visual Basic
- **VC++ -** Visual C++
- **VCD** - Video Compact Disc
- **VDL** - View Definition Language
- **VGA** - Video Graphics Array
- **VHS** - Video Home System
- **VLIW** - Very Long Instruction Words
- **VLSI -** Very Large Scale Integrated Circuits
- **VPN -** Virtual Private Network
- **VRAM** - Video Random Access Memory
- **VRML** - Virtual Reality Modelling Language
- **VS** - Visual Studio
- **VVR -** Software Validation And Validation Report
- **VXD** - Virtual Device Driver
- **W3C** - World Wide Web Consortium
- **WAIS -** Wide Area Information Servers
- **WAN - W**ide Area Network
- **WAP** - Wireless Application Protocol
- **WBEM** - WebBase Enterprise Management
- **WDM -** Wave Division Multiplexing

Computer - Some Short-Cut Keys

Some basic Keys Common Tasks

- *Ctrl + Shift + Spacebar -* Create a non breaking space
- *Ctrl + B -* Make letters bold
- *Ctrl + I* - Make letters italic
- *Ctrl + U* - Make letters underline
- *Ctrl + Shift+ <* - Decrease font size one value
- *Ctrl + Shift + >* - Increase the font size one value
- *Ctrl + [* - Increase the font size by 1 point
- *Ctrl +]* - Decrease the font size by 1 point
- *Ctrl + Spacebar* - Remove paragraph or character formatting.
- *Ctrl + C* - Copy the selected text or object
- *Ctrl + X* - Cut the selected text or object
- *Ctrl + V* - Paste text or an object
- *Ctrl + Alt + V* - Paste special
- *Ctrl + Shift + V* - Paste formatting only
- *Ctrl + Z* - Undo the last action
- *Ctrl + Y* - Redo the last action

Control - Keys + Function Keys

- *Ctrl+F2* - Choose the print preview command (Microsoft office Button)
- *Ctrl+F3* - Cut on the spike
- *Ctrl+F4* - Close the window
- **Ctrl+F6** - Go to the next window
- **Ctrl+F9** - Insert an empty field
- *Ctrl+F10* - Maximise the document window
- *Ctrl+F11* - Lock a field
- *Ctrl+F12* - Choose the Open command (Microsoft Office Button)

Function Keys

- *Ctrl+F2* - Choose the print preview command (Microsoft office Button)
- *Ctrl+F3* - Cut on the spike
- *Ctrl+F4* - Close the window
- *Ctrl+F6* - Go to the next window

- *Ctrl+F9* - Insert an empty field
- *Ctrl+F10* - Maximise the document window
- *Ctrl+F11* - Lock a field
- *Ctrl+F12* - Choose the Open command (Microsoft Office Button)
- *Ctrl+F2* - Choose the print preview command (Microsoft office Button)
- *Ctrl+F3* - Cut on the spike
- *Ctrl+F4* - Close the window

Shortcut Keys of MS-Excel

- *F2* - Edit the selected cell
- *F5* - Go to a specific cell
- *F7* - Spell check selected text and/or document
- *F11* - Create chart
- *Ctrl + Shift + ;* - Enter the current time
- *Ctrl + ;* - Enter the current date
- *Shift + F3* - Open the Excel formula window
- *Shift + F5* - Bring up search box.
- *Ctrl + A* - Select all contents of the worksheet
- *Ctrl + B* - Bold highlighted selection
- *Ctrl + I* - Italic highlighted selection
- *Ctrl + U* - Underline highlighted selection
- *Ctrl + P* - Bring up the print dialog box to begin printing
- *Ctrl + Z* - Undo last action
- *Ctrl + F9* - Minimise current workbook
- *Ctrl + F10* - Maximise currently selected workbook
- *Ctrl + F6* - Switch between open workbooks/window
- *Ctrl + Page Up* - Move between Excel worksheet in the same Excel document.
- *Ctrl + Page Down* - Move between Excel worksheets in the same Excel document
- *Ctrl + Tab* - Move between two or more open Excel files
- *Alt + =* - Create a formula to sum all of the above cells
- *Ctrl + '* - Insert the value of the above cell into cell currently selected.
- *Ctrl + Arrow key* - Move to next section to text
- *Ctrl + Space* - Select entire column
- *Shift + Space* - Select entire row

Important Computer Extensions

Text Files
.log: Log File
.wpd: WordPerfect Document
.odt: OpenDocument Text Document

.pages: Pages Document
.doc: Microsoft Word Document
.docx: Microsoft Word Open XML Document
.tex: LaTeX Source Document
.wps: Microsoft Works Word Processor Document
.msg: Outlook Mail Message
.rtfRich: Text Format File
.txtPlain: Text File

Data Files
.vcf: vCard File
.dat: Data File
.pptx: PowerPoint Open XML Presentation
.sdf: Standard Data File
.tar: Consolidated Unix File Archive
.csv: Comma Seperated Values File
.xml: XML File
.pps: PowerPoint Slide Show
.ppt: PowerPoint Presentation

Audio Files
.aif: Audio Interchange File Format
.mpa: MPEG-2 Audio File
.ra: Real Audio File
.iff: Interchange File Format
.wav: WAVE Audio File
.wma: Windows Media Audio File
.mp3: MP3 Audio File

Video Files
.avi: Audio Video Interleave File
.3gp3: GPP Multimedia File
.flv: Flash Video File
.mpg: MPEG Video File
.vob: DVD Video Object File
.mp4: MPEG-4 Video File
.3g: 23GPP2 Multimedia File
.m4: viTunes Video File

.wmv: Windows Media Video File