

COMPUTER

Class - Notes

ENGLISH MEDIUM

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Computer - System

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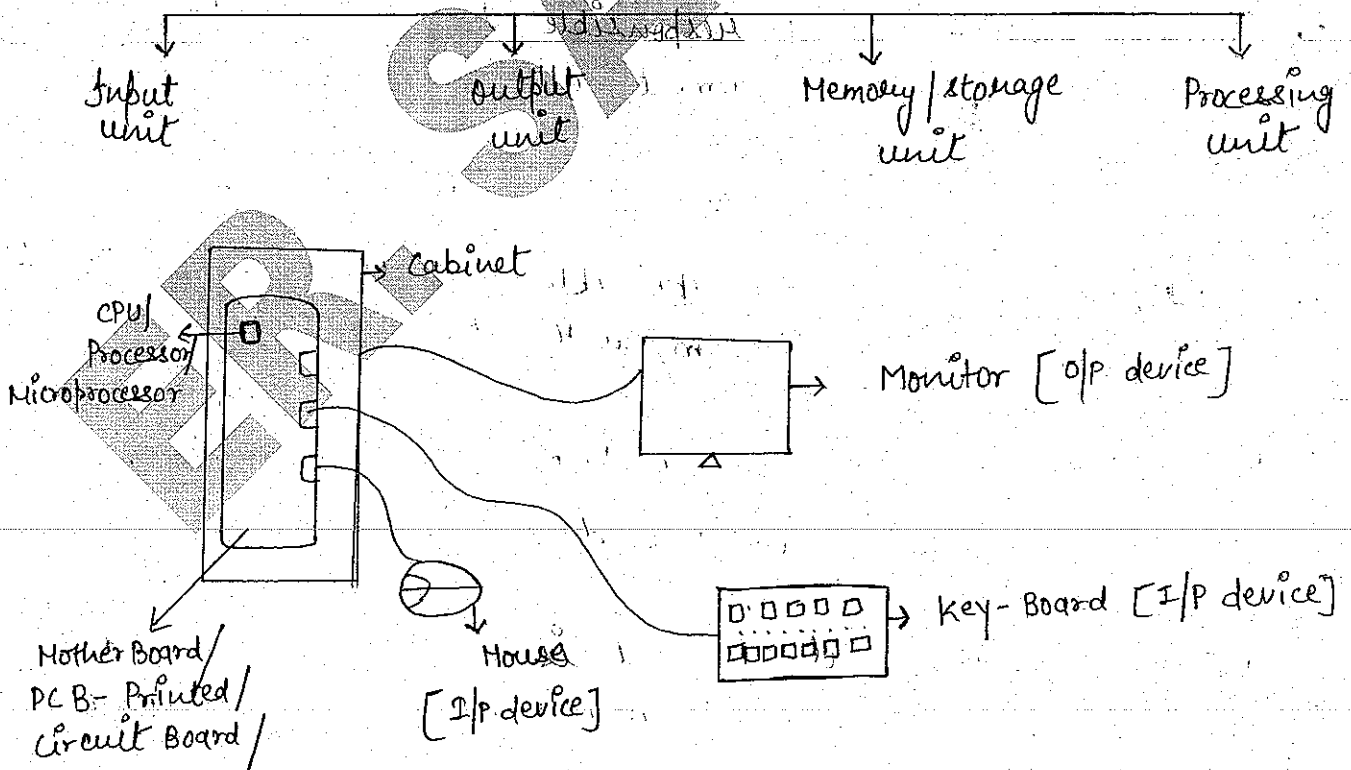
* System :- When two or more than two interrelated components are connected to each other to achieve a common objective.

Computer is also known as a system because it consists of many components known as physical component.

Computer word is derived from English language word "COMPUTE" means to calculate.

→ Father of Computer is "Charles Babbage."

* Computer system consists of major four components.



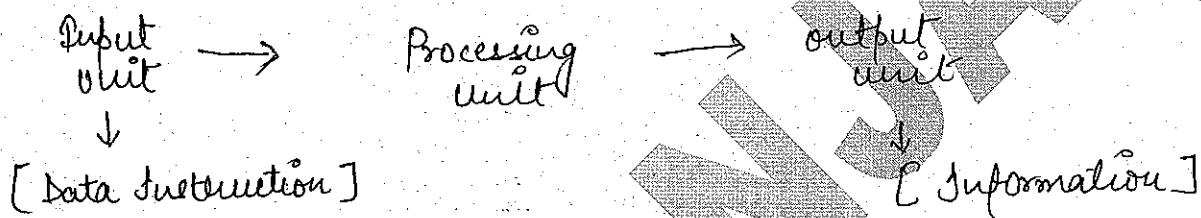
"COMPUTER - SYSTEM"

Components :-

1. Input unit :- Through which data and instruction are provided in a system.

Note :- → Any raw fact and figure entered in a computer is known as data.

- An information under process is also known as data.
- An unorganized collection of information is also known as data.



2. Processing unit :- It is responsible to analyse, interpret and execute almost all instruction provided in a system.

3. Output unit :- It is responsible to provide output provided by a system in the form of information.

NOTE :- Product of data is known as information.
Information is organized collection of data.

4. Memory / storage unit :- It is the place where data, instruction and program are retained for temporary or permanent manner.

* Definition of Computer System :-

Computer system is an electronic data processing device, which receives data and instructions as input, process it with processor and provides o/p in the form of information displayed on o/p device.

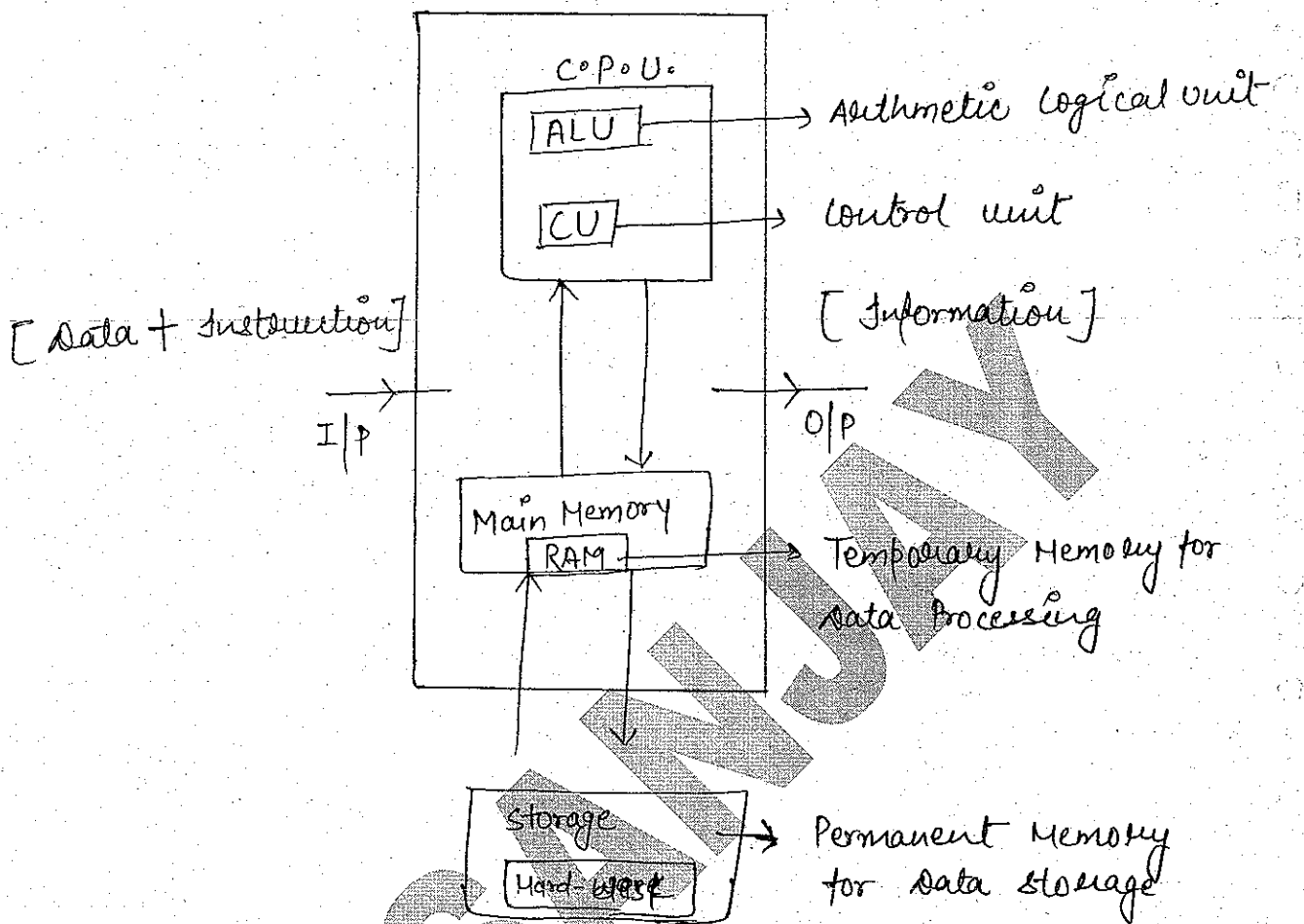
* Parts of Computers:-

Any physical components of a computer system is known as hardware and externally connected devices are known as peripheral devices.

1. C.P.U. [Central Processing Unit] :-

- Also known as processor, Microprocessor and Brain of Computer.
- First introduced in fourth generation of computer with micro-computer.
- First micro-processor is developed by Intel-corporation in 1970 named as Intel-4004.
- It is made-up of silicon integrated on motherboard.
- It is responsible to execute all instructions of a system.

SYSTEM-UNIT



* Components of C.P.U. :-

Two main Components of C.P.U. are :-

I. ALU.

II. CU.

1. ALU :- Arithmetic logical unit :- This part of C.P.U. is responsible for executing Arithmetic (+, -, *, /) and logical operations (<, >, ≤, ≥, =, ≠, #, etc.)

2. CU :- Control unit :- This part of C.P.U. is responsible to control and co-ordinate all activities of a system.

Apart from these C.P.U. have :-

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1. Register:- A Temporary memory component to hold data, instruction and address while executing any operations.
2. System clock:- Responsible to provide clock pulse through which C.P.U. process data in a system.

NOTE:-

- All the components of system unit interact and transfer data through "Bus."
- Program Counter is responsible to provide address of next instructions to be executed.

* Functions of C.P.U.:-

- i) Data Fetch:- The process of Retrieval of data from main memory to control unit.
- ii) Execute:- Performed by ALU to execute or complete instructions provide by control unit.
- iii) Decode:- Performed by control unit, to decode assembly instructions to machine code.
- iv) Write Back:- To write data into memory for further use.

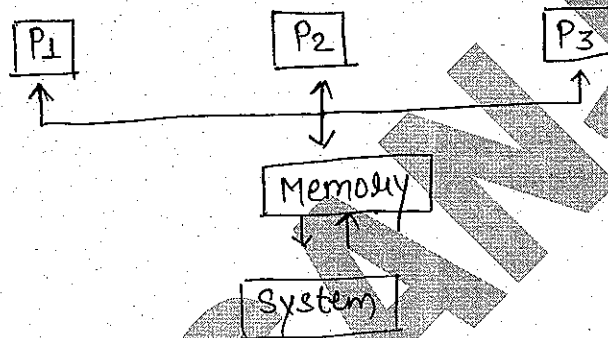
* Factors responsible to increase speed of C.P.U.

- i) word length:- The no. of words processed at a time by processor.

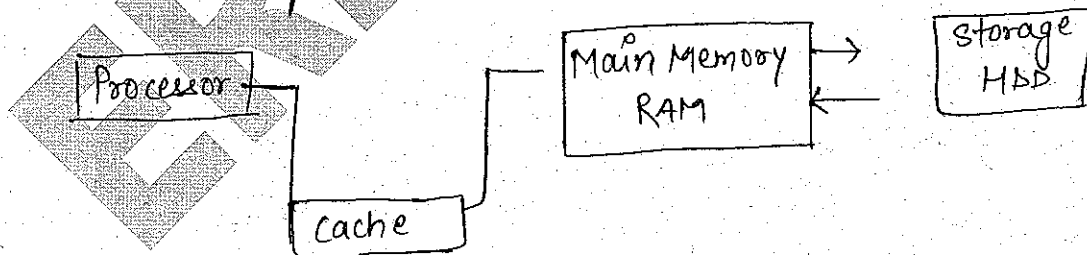
ii) System clock :- It provides clock pulse to execute instructions and process data.

speed of computer is measured in GHz [Hertz] and processing power is measured in MIPS. [Millions instruction per second]

Q. Multiprocessing / Parallel Processing :- The process of using more than one processor at a time to execute multiple process simultaneously.

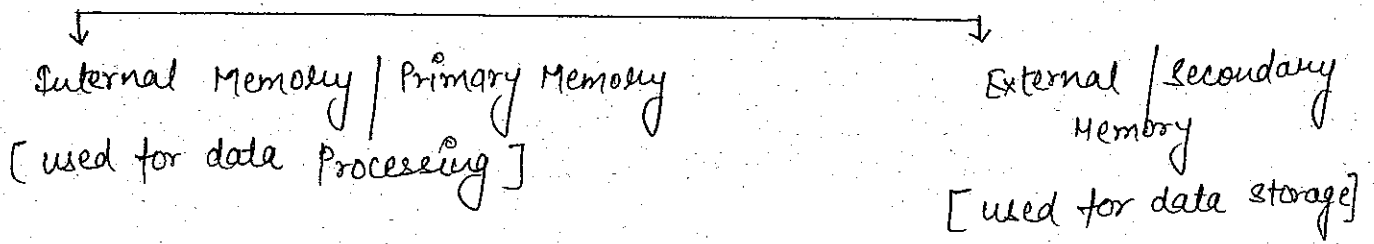


14. Cache Memory :- It is a type of memory which is between CPU and Main Memory to provide faster access of data.



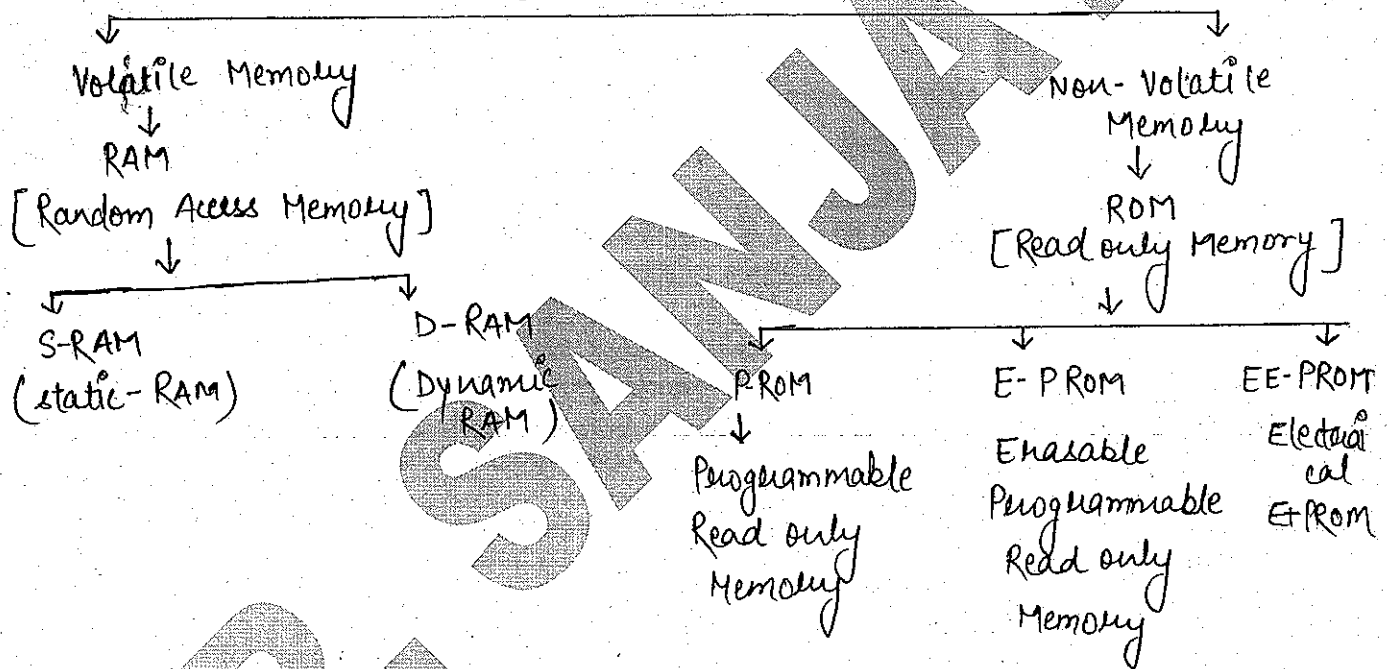
* Memory / Storage :- Area where data, instruction and programmes are retained for processing and data stored in permanent manner is known as storage.

Memory is classified into two parts :-



1. Internal Memory :-

primary / main / semi-conductor / core-memory



NOTE:- Registers and Cache Memory are also known as Internal Memory which behaves like volatile.

1. Primary Memory :- It is the memory in which data reside while processing. All the Programs are loaded before execution.

It is of two types :-

* Volatile Memory :- Data Retain in memory till power supply is on.

RAM is a volatile memory because data processed in RAM is lost when power supply is off.

RAM can be classified into two types :-

1. S-RAM :- [Static Random Access Memory]

→ S-RAM doesn't require to refresh data continuously and due to this property it is faster than D-RAM.

2. D-RAM :- [Dynamic - Random Access Memory]

D-RAM is refreshed by processor continuously thousand of times in a minute and due to this property it is slower than S-RAM.

NOTE :- S-RAM and D-RAM both are volatile in nature.

* Non-Volatile Memory :-

→ ROM [Read only Memory] :- Also known as Non-Volatile or Permanent memory of Computer.

Some Instruction and Programs are stored while manufacturing a system. It is integrated microchip on Mother-board.

5
Basically two programs are stored in ROM :-

1. BIOS :- Basic Input-output system.
Program responsible to boot a system.

NOTE :- The process of starting a system is known as booting.

* There are two types of Booting :-

a) Cold / Soft booting :- when a system is on when it is completely closed.

b) Warm / Hot / Hard Booting :- when a system is restart or rebooted.

* ROM can be categorised into three types :-

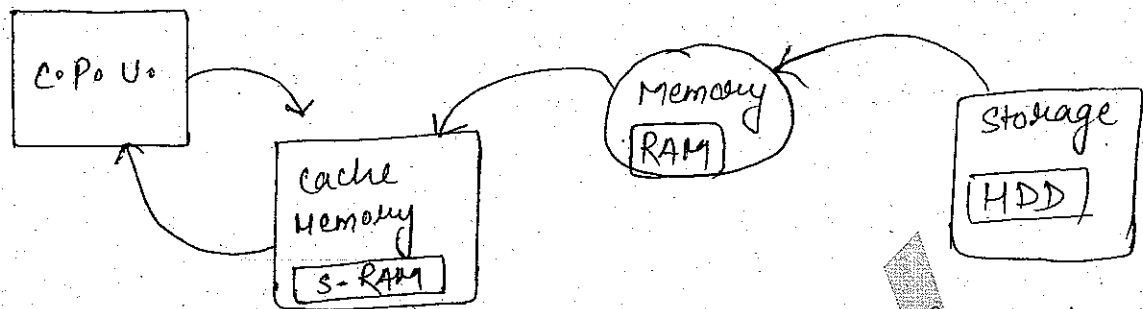
1. PROM :- Programmable Read only Memory :-
In this type of ROM Program once written never be changed.

2. EPROM :- Erasable - Programmable Read only Memory :-
In this type of ROM, Program once written is changed with the help of "ultra-violet" rays.

3. EEPROM :- Electrically Erasable Programmable /
Read only Memory

In this type of ROM, Program once written is changed with the help of Electric pulses.

* Cache Memory :-

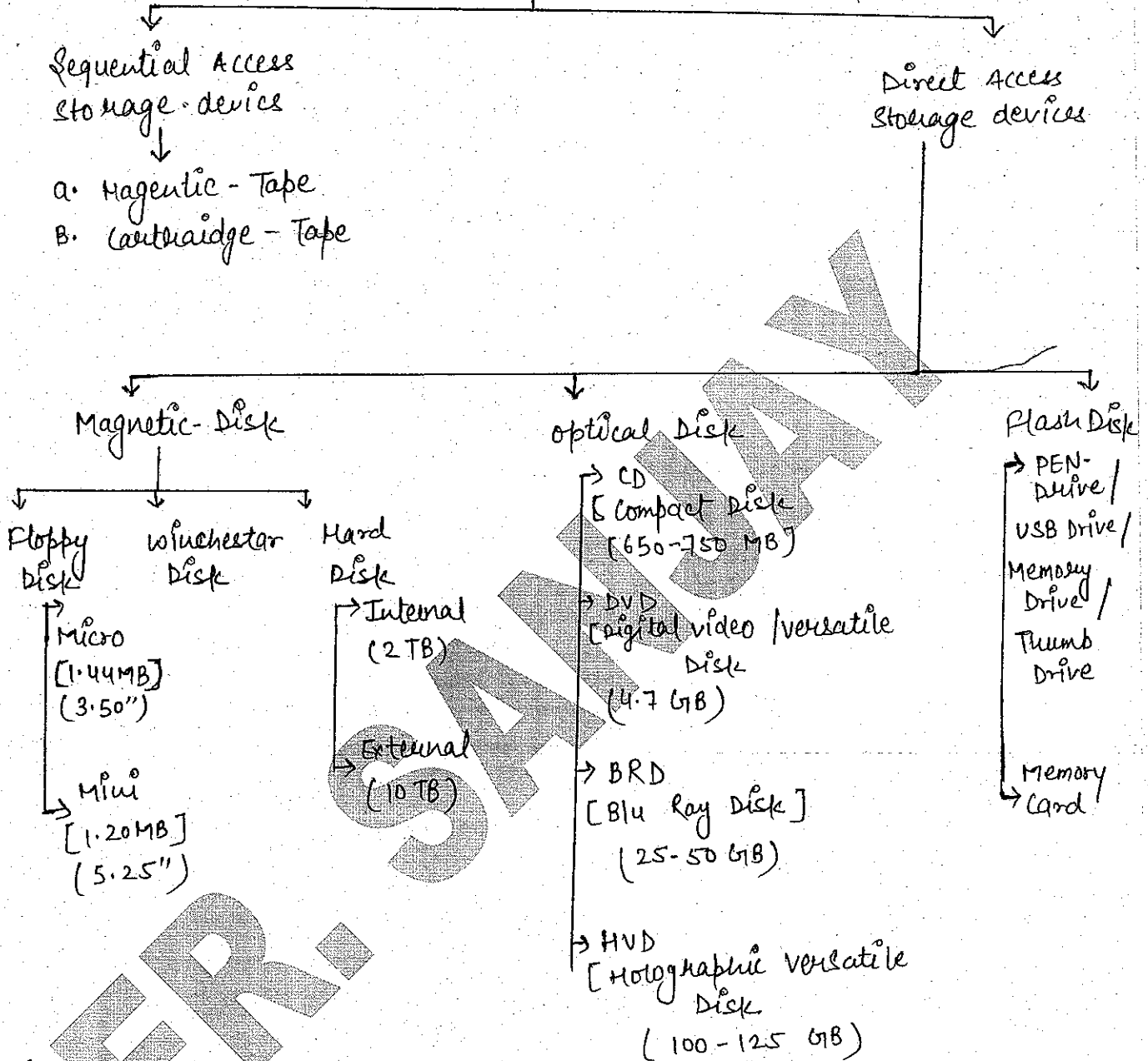


- It is a type of high speed memory to provide faster accessed of data.
- It lies b/w C.P.U. and Primary Memory.
- Most recently used data is processed in cache so that processor can process data in faster manner.
- Volatile in nature because S-RAM is used for this memory.

* Virtual Memory :-

- This type of memory is provided by O.S. when RAM has insufficient space or not capable to process a program.
- A virtual space is allocated from storage and depends on disk space.
- Also known as illusion of main memory.

External Memory Supplementary / secondary / Auxiliary / Backup / alternate



* Storage:-
→ Area where data is stored in permanent manner.

→ On the basis of Access storage devices are of two types.

(a) Sequential Access storage devices:-

→ Data stored in a device is accessed in a particular sequence.

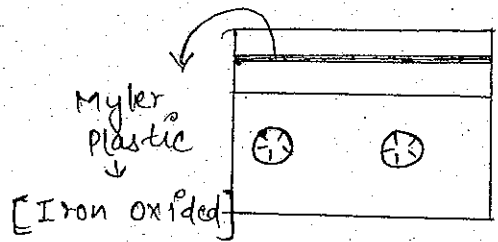
→ data access is slow.

Eg:-

i) Magnetic Tape :-

→ data stored in magnetic tape is accessed in a sequence.

→ used for audio and video recording.



ii) Cardedge Tape :- Similar to magnetic tape but size of plastic used is smaller as comparison to magnetic tape.

B) Direct access storage Devices :-

→ data stored in a device is accessed in a sequence or any sequence.

→ data access is fast.

These are divided into three categories :-

i) Magnetic storage devices :- data stored in disk can be accessed in any sequence.

(a) Floppy Disk :- Basically used for document files.

→ Floppy is inserted in Floppy - drive.

→ A part of floppy is opened known as Access window to read/write data disk.

→ Floppy is also known as Diskette.

→ Floppy is made up of Myler plastic.

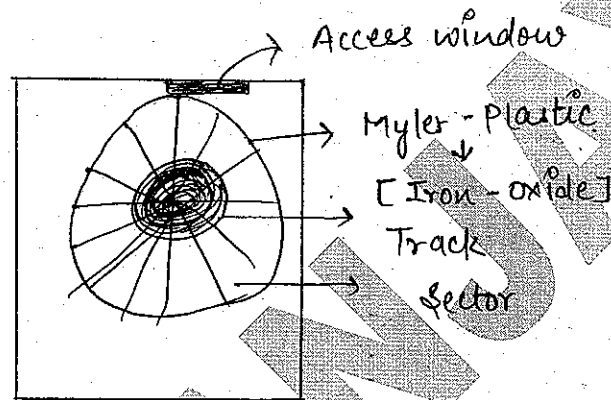
→ Floppy is divided into track and sector and this process is known as formatting.

ON the basis of size and capacity it is of two types.

(a) Micro Floppy :- Diameter is 3.50 inches and having capacity of 1.44 MB.

(b) Mini Floppy :- diameter is 5.25 inches and having capacity of 1.50 MB.

NOTE:- 8.00" inch size floppy is also manufactured but it never be used.



NOTE:- (i) Track is the part where data is retained and can be used.

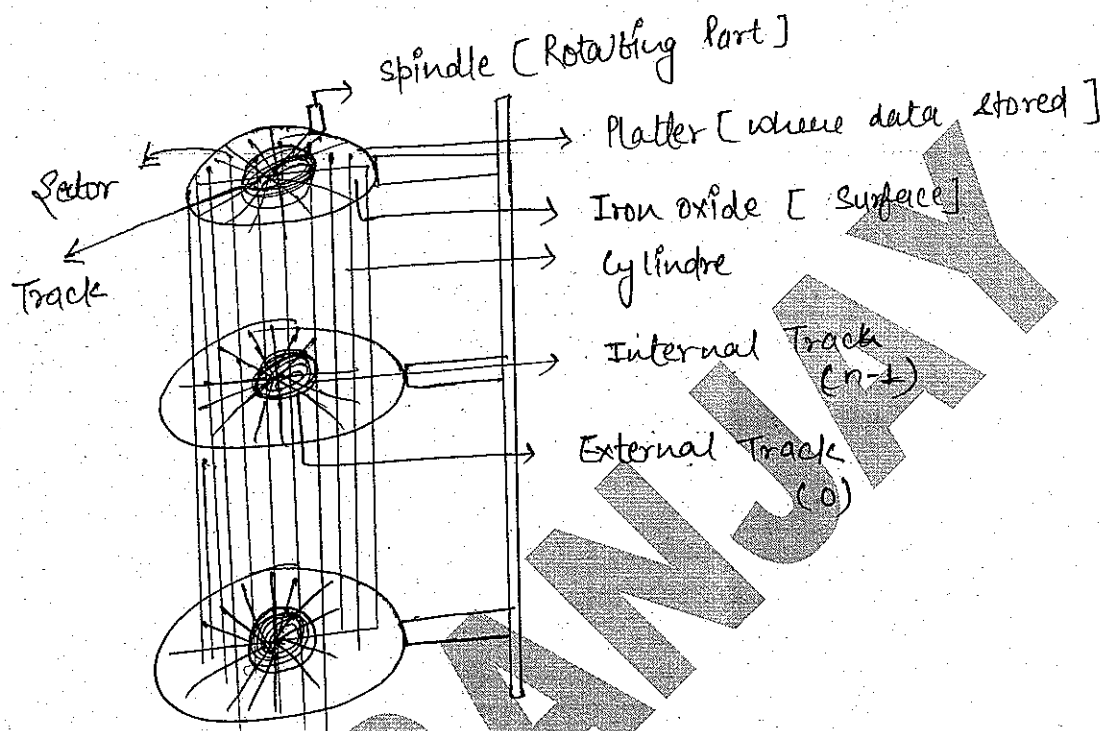
(ii) Sector is the part of track to write new data.

B) Hard-disk :- used to store large amount of data in permanent manner.

- Due to huge storage capacity it is also known as mass storage device.
- Due to connectivity with system unit it is also known as "online storage device."
- Data in hardware in the circular part known as platter and it is rotated through a spindle.
- Iron-oxide surface is used for platter.
- Disk is divided in track sector and cylinder.

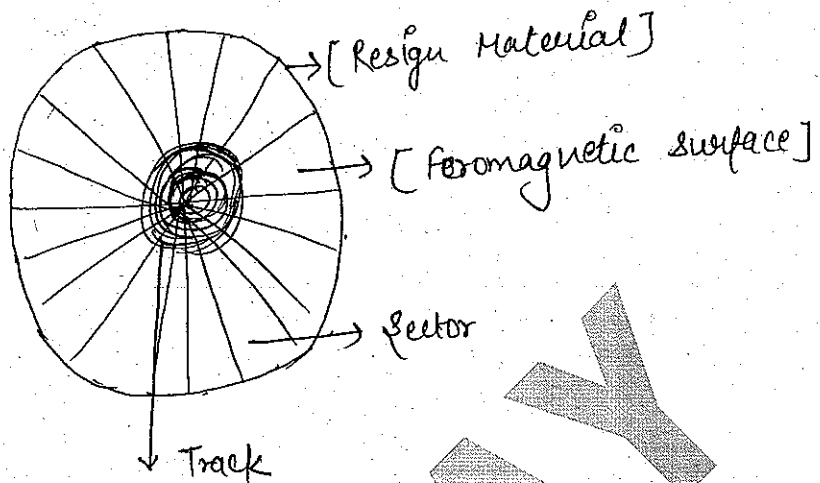
→ Cylinder is used to write data in disk.

→ Address of internal track is $(n-1)$ where address of external track is '0'.



(C) Optical Disk :- Data is read/write the help of Red laser Rays.

- Ferromagnetic surface is used to store data.
- shape of optical disk is circular and data is stored in spiral format.
- optical disk is divided into track and sector.
- optical disk is inserted in a drive like - CD-Drive, DVD - Drive.



i) CD [Compact Disk] :- used for digital data and training
Capacity of 650 MB to 750 MB.

⇒ Two Types :-

I. CD-ROM :- Compact disk - Read only Memory
[It is used to read data stored in a disk.]

II. CD-WORM :- Compact disk - write once Read only Memory
[It is used to read and write data in a disk.]

ii) DVD [Digital - Video / Versatile Disk] :-

→ It is used to store data upto 4.7 GB.

→ It DVD is two layered than it can stored upto 17-GB data.

iii) BRD [Blue-Ray Disk] :- Blue-Violet Rays are used to read/write data.

↓
Single layered (25 GB)
↓
used for high definition
Video.

↓
Dual layered [50 GB]

(iv) HVD [Holographic - versatile Disk] :-

→ used to store multimedia and animation files.

→ used to store 100 to 125 GB [1 terabyte]

(c) Flash disk :- Also used to store data in semiconductor capable to large amount of data.

→ USB (Universal Serial Bus) Drive / Flash drive / Memory drive / Key-drive / Intelligent drive
↓
to move data from one computer to another.

→ Memory stick / Memory card :- used in PDA, Mobile devices to store data.

* Computer - Coding

The way of representing a data in memory.

a. Binary Coded Decimal :- [BCD]

→ 4 bit BCD code in which every digit of decimal number is represented as 4-bit binary number.

b. EBCDIC :- Extended Binary Coded decimal Interchange code

→ 8 bit BCD code in which every digit of decimal is represented as 8-bit binary digit.

c. ASCII :- American standard code for Information Interchange



It's defined by ANSI [American National Institute]

→ There are two formats of ASCII :-

- 7 bit [$2^7 = 128$ value (0 to 127)]
- 8 bit [$2^8 = 256$ value (0 to 255)]

D: UNICODE :- [Universal Code]

International language based, coding to provide similar coding to all language to different symbols used in language.

* Three format of Unicode :-

- UTF-8 [Uniform Transformation format]
- UTF-16 " "
- UTF-32 " "

* Storage Capacity :-

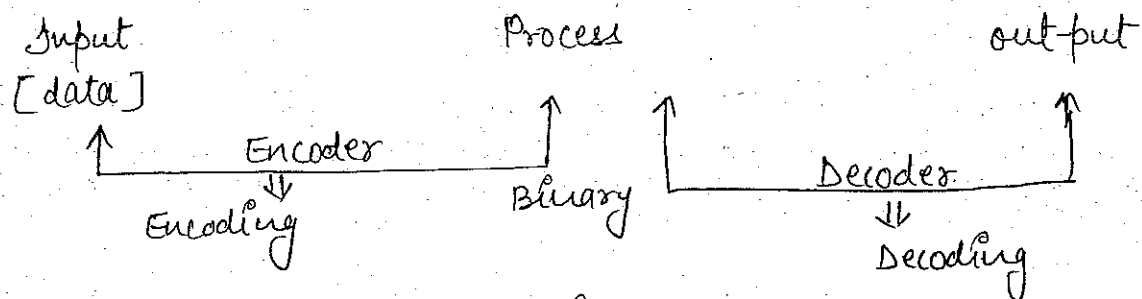
In computer system data is stored in the form of binary digits i.e. '0' or '1' (Bit) and it's known as smallest unit of memory.

When 8-bits are combined into a group. It is known as Byte and is known as word.

4 Bit = 1 Nibble
8 Bit = 1 Byte

	[Binary Byte]	[Approximate (Byte)]
1024 B = 1 KB (kiloByte)	2^{10}	1000
1024 KB = 1 MB (Mega " ")	2^{20}	1000^2 (million)
1024 MB = 1 GB (Giga " ")	2^{30}	1000^3 (Billion)
1024 GB = 1 TB (TeraByte)	2^{40}	1000^4 (Trillion)
1024 TB = 1 PB (Penta " ")	2^{50}	1000^5
1024 PB = 1 EB (Exa " ")	2^{60}	1000^6
1024 EB = 1 ZB (Zetta " ")	2^{70}	1000^7
1024 ZB = 1 YB (Yotta " ")	2^{80}	1000^8

Input - Devices



Input devices are responsible to receive data and instructions in a computer system.

These are responsible to encode data into binary provided by user:-

* Examples of Input devices:-

1. Key-Board :- standard input devices in a computer-based system.

No. of keys :- 101 To 108 keys.

Layout :- QWERTY

Home key :- ASDFGJ (second Row)

Types of keys on keyboard :-

1. Alpha - Numeric - [A to Z, 0 to 9]

2. Function key - [F1 to F12]

↓

F1 :- Help

F4 :- Redo

F2 :- Rename

F5 :- Refresh

F3 :- Search

F7 :- spelling and Grammatical Error

F12 :- Save as.

3. Modifier key / Combination keys :-

Alt (alter)

ctrl (control)

shift

4. Toggle key :- keys having features of on and off.

[Capslock, Numlock, Scrolllock, Pause]

5. Navigation Key :- For Navigation Purpose :-
Arrow key, Page up, Page down, Home, End.

6. Special character key :- *, %, \$, @

7. Numeric keypad :- Total 17 keys

8. Special keys :-

1. Tab :- To move a cursor to specified position.
2. Delete :- To delete a character from right side.
3. Backspace :- To delete a character from left side.
4. Enter :- To complete any command.
5. Space bar :- To provide space b/w two words.
6. Window :- To active start menu.

2. Pointing Devices :- Input devices through which data and instructions are provided through a pointer.

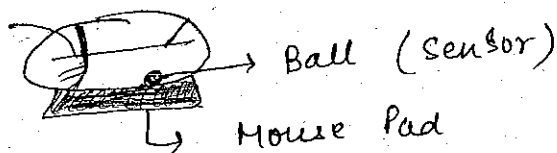
+ Mouse :- standard pointing devices used in GUI [Graphical user Interface] Environment.

+ Pointer used for Mouse is cursor.

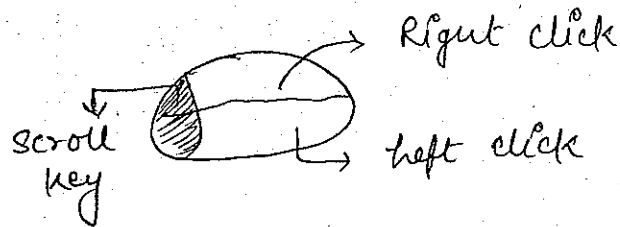
+ Object used to scroll mouse is Mousepad

→ There are two types of mouse :-

[A] Mechanical Mouse :- A ball is used to move cursor.



B. Optical Mouse :- Laser Technology is used to move cursor.



* Activities of Mouse :-

- A.
- i) Single clicking :- Hold left button and click to on a object selects a objects.
 - ii) Double clicking :- Hold left button and clicking twice on a object opens it.
 - iii) Right clicking :- Hold Right button and click on a object activities its menu and we can access property.
 - iv) Dragging :- Holding a object with left click and move it to another place.

B. TrackBall :- working of trackball is similar to mechanical mouse.

→ used for designing purpose like CAD

[Computer Added design]

C. Joystick :- used to computer game or where faster movement of cursor is required.

D. Light Pen :- used to directly interact with a devices and I/P data.

E. Touch Screen :- To directly input data.

F. Touch Pad :- used In Mobile-PC [laptop] to work as a Mouse.

G. Scanner :- Also known as eye of a system used to convert hard copy to soft copy.

4. Microphone
5. Mike
6. Speech Recognition
7. Digital Camera :- To input offline data like image and video.
8. Web Camera :- To input real time video.
9. Biometric Sensor :- To input living part sign of a human being.
10. Graphics Tablet :- used for designing.
11. Direct Data Entry Input devices :- In this type of input devices user does not have to type or write data for input.

I. BCR :- [Bar Code Reader]



It is used in Super market, Main to read information stored in the form of barcode.

II. OCR :- [Optical Character Reader] :- It reads only one character at a time and used to read handwritten or printed text printed on a paper and translate them to machine readable and editable form.

III. OMR :- [Optical Mark Reader]

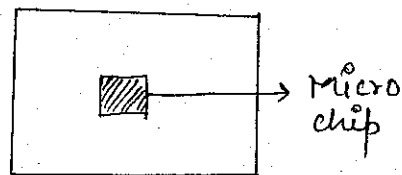
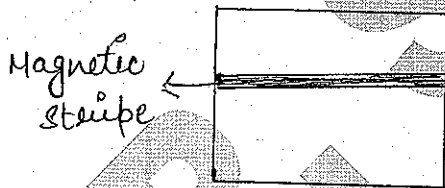
It is used to read marks printed on a paper. Basically, used to check answer-sheet of examinee where he/she have multiple choices to answer a question.

IV. MICR :- [Magnetic Ink Character Recognition]

Specially used in Banking Industry to recognise characters printed on cheque with Magnetic Ink.

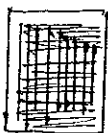
→ It only reads 10 characters and a special character printed on a cheque.

V. Smart Card Reader :- It is used to read information stored in Magnetic stripe and Micro chip.



VI. QR [Quick Response] code Reader :-

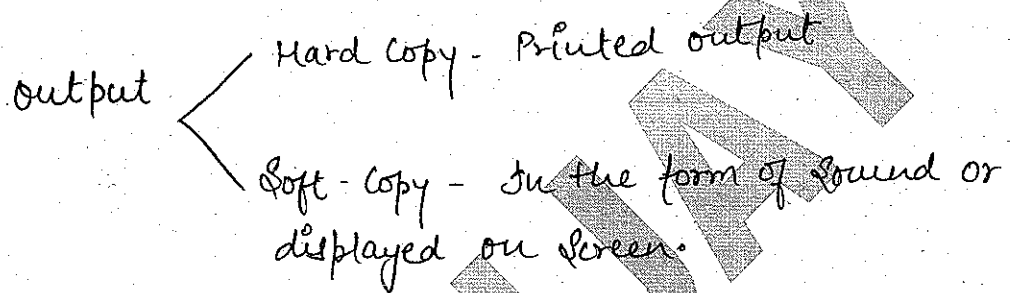
It is used to read information stored in graphics code and used for security purpose.



OUT-PUT DEVICES

These devices are responsible to provide out-put provided by system.

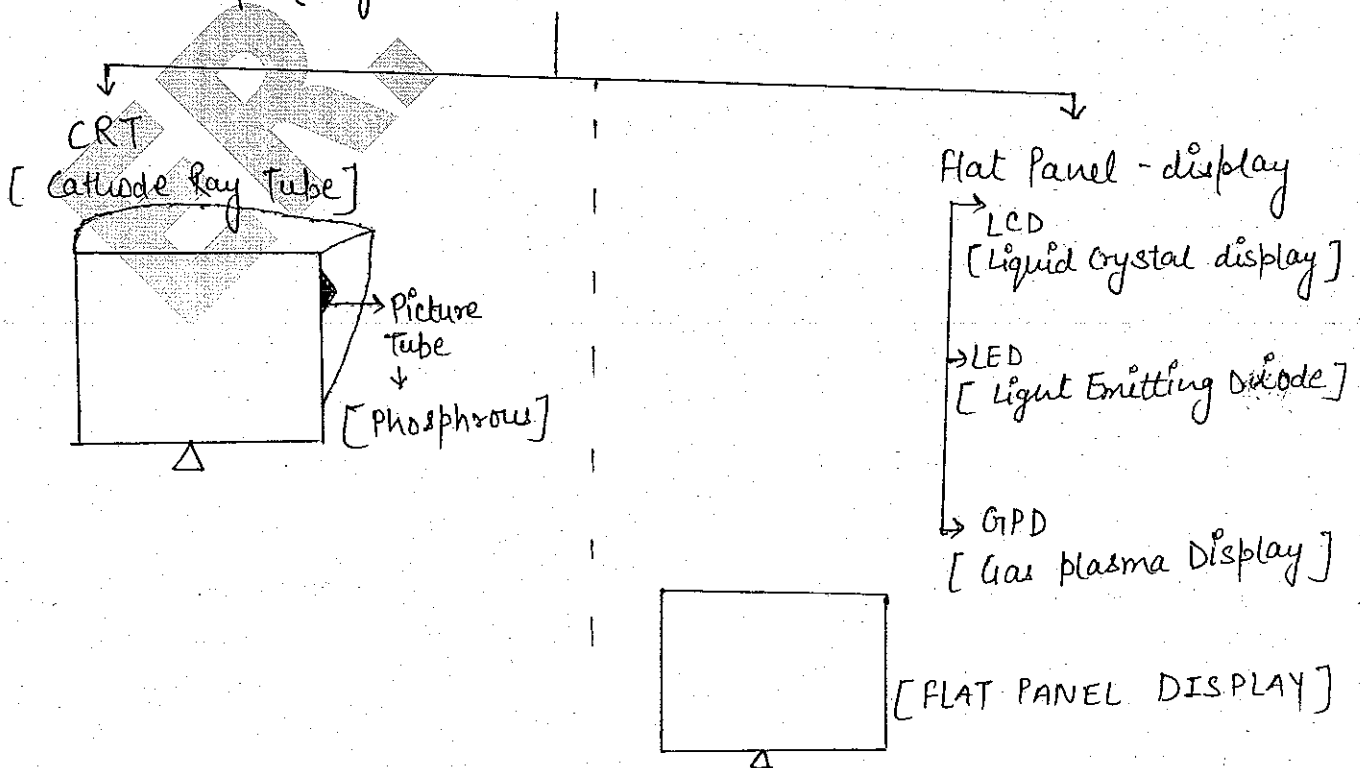
These are also responsible to decode data provided by a system which make information human readable from.



I. Monitor / Display / Screen / VDU [visual display unit] :-

This is standard output devices which was first introduced in third generation of computers.

* TYPES of Monitor



NOTE:-

- * Screen size of a monitor is measured diagonally.
- * Image displayed on a monitor is made up of various "dots" known as "pixels".
- * The display quality of monitor is depends on Resolution and measured in "DPI" [Dots per Inches]
- * The image displayed on a display is depends on "Refresh Rate" and measured in "Hertz".
- * The Horizontal distance between two pixels known as "dot pitch".

II. Projector :- It is used to display multimedia files stored in a system with the help of Screen.

III. Speaker :- It is used to provide output in the form of sound.

IV. Plotter :- It is used to print high quality advertisement image.
Quality depends on : BMP [Bit mapping]

V. Printer :- It is used to provide output in the form of hard-copy.

Printing - Technology

Impact-Printer

* Printing is performed by a printing head which makes lot of noise while printing.

* Unable of print high quality graphics or image.

* unable to print a text with different color, size, type and style.

* Speed:-
 CPM - Character Per Minute
 WPM - word Per Minute
 LPM - Line Per Minute

* Examples:-

- DMP - Dot Matrix Printer
- Daisy wheel Printer
- Serial Printer
- Drum Printer
- Band Printer
- Chain Printer

Non-Impact Printer

* Nozzle is for printing character which doesn't makes lot of noise.

* High quality images can easily be printed.

* Similar thing easily possible in these of Printer.

* Speed:-
 PPM - Page Per Minute

* Examples:-

- Inkjet Printer
- Laser Printer
- Thermal Printer

NOTE:-

1. Band, chain, drum printers are based on line printing technology i.e. known as line printers.
2. Thermal Printer is used for printing in ATM Machine.
3. Laser printer is fastest among any printer in printing speed.
4. The Resolution of printer is measured in "DPI" [dots per Inch] or "PPI" [Pixels Per Inch]

Number-System

way to write number using specified digits.

	Number System	Base	digit	Example
1.	Binary	$()_2$	0 & 1	$(10101)_2$
2.	Octal	$()_8$	0 & 7	$(123)_8$
3.	Decimal	$()_{10}$	0 & 9	$(123)_{10}$
4.	Hexa decimal	$()_{16}$	0 to 9 A to F	$(AA\ 27)_{16}$

* Number Conversion :-

Conversion from one number system to another

1. Decimal Conversion:

1. Decimal to binary : Divide the given decimal number by 2 till possible and write the remainder in reverse order.

eg:- $(225)_{10} = (11100001)_2$

2	225	- 1
2	112	0
2	56	0
2	28	0
2	14	0
2	7	1
2	3	1
2	1	

$(225)_{10} = (11100001)_2$

B. Decimal to octal :- Divide the given decimal number by 8 till possible and write the remainder in reverse order.

eg:- $(225)_{10} = [341]_8$

8	225	1
8	28	4
8	3	

C. Decimal to hexa :- Divide the given decimal number by 16 till possible and write the remainder in reverse order.

eg:- $(225)_{10} = (E1)_{16}$

16	225	1
	14	

2. Binary conversion :-

A. Binary to Decimal \rightarrow

$(11011101)_2 = (221)_{10}$

\downarrow
 \rightarrow

B. Binary to Octal :- to find the octal value from the binary number.

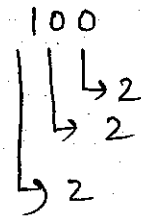
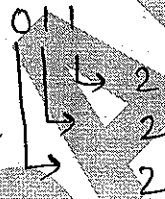
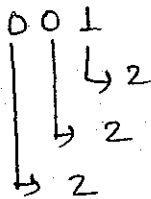
→ First Method :- Convert binary number into decimal number and then divide the decimal number by 8.

→ Second Method :- Make the group of three numbers and then find the individual value of that group.

$$\text{eg} \rightarrow [11100001]_2 = [341]_8$$

011100001..... 1st group 001, second group 100 and 3rd group 011.

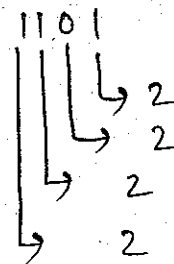
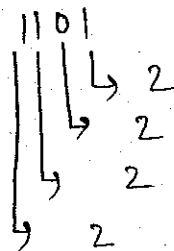
Individual value 001 = 1, 100 = 4, 011 = 3



$$[(0+2+1)=3] \quad [(4+0+0)=4] \quad [(0+0+1)=1] = [341]_8$$

C. Binary to Hexadecimal :-

$$(11011101)_2 = [DD]_{16}$$



$$(1+0+4+8) \quad (1+0+4+8) = (1313)_{16} = [DD]_{16}$$

3. Octal conversion :-

A. Octal to decimal \rightarrow

$$(76)_8 = (62)_{10}$$

$$\begin{array}{l} 76 \\ \downarrow \rightarrow 8 \\ \downarrow \rightarrow 8 \end{array}$$

To find the decimal number from the octal number, position all the numbers and then multiply with them.

B. Octal to Binary \rightarrow

To convert octal number to binary, find the binary of individual numbers in the pair of three digit.

$$(76)_8 = (111110)_2$$

$$\begin{array}{l} 76 \\ \downarrow \rightarrow 110 \\ \downarrow \rightarrow 111 \end{array}$$

4. Hexa Decimal Conversion :-

A. Hexa decimal to decimal \rightarrow

To find the decimal number from the hexadecimal number, position all the numbers and then multiply with them.

$$[2AD]_{16} = [685]_{10}$$

$$\begin{array}{l} 2AD \\ \downarrow \rightarrow 16 \\ \downarrow \rightarrow 16 \\ \downarrow \rightarrow 16 \end{array}$$

B. Hexa decimal to Binary :-

To convert octal number to binary,
find the binary of individual number in the
pair of four digit.

$$[2AD]_{16} = (001010101101)_2$$

2 A D
↓

ER. SANJAY

❖ Types of Computer ❖

Purpose	Data Process Capability	Cost, Size, process	Recent Trend	Function	Generation
1. General	Digital	Super	Laptop	Server	I
2. Special Purpose	Analog Hybrid	Mainframe Mini Micro	Tablet PDA ↓ Personal digital assistant ↓ Palmtop ↓ Hand Hold device	Workstation Terminal → Dumb → Intelligent	II III IV V

→ General Purpose :- A computer designed to solve a variety of problem.

★ PC [Personal Computer]

→ Special Purpose :- A computer designed to solve a dedicated single problem.

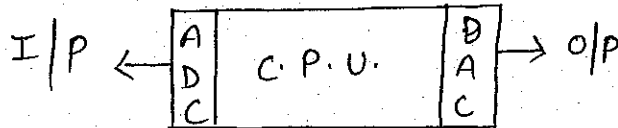
★ ATC [Automatic Traffic Control], weather forecasting, System, Aircraft Aviation System.

→ Data

- Analog data → (Physical Quantity) → Analog computer are used to measure physical quantity like → Temperature, pressure, voltage.
eg:- Voltmeter, Ammeter.
- Discrete / Digital Data → 0 and 1 → digital computer are used to process data in discrete form i.e. 0 or 1.
eg:- digital calculator, digital watch.

→ Hybrid :- Analog + digital :- A Computer System having speciality of both analog as well as digital.

→ Petrol pump :- Petrol | measure + Calculate value = Hybrid
(Analog) (digital)



* I. Super Computer :- Most powerful computer used by govt. for scientific and research purpose.

→ Speed :- Flops [Floating points per second]

→ word length :- 64-bit.

* world's first super is developed in 1976 named as CRAY-I by CRAY Agency.

* world's fastest computer - Tianhe-III [China]

* India's 1st super computer was developed in 1991 named as PARAM by C-DAC pune.

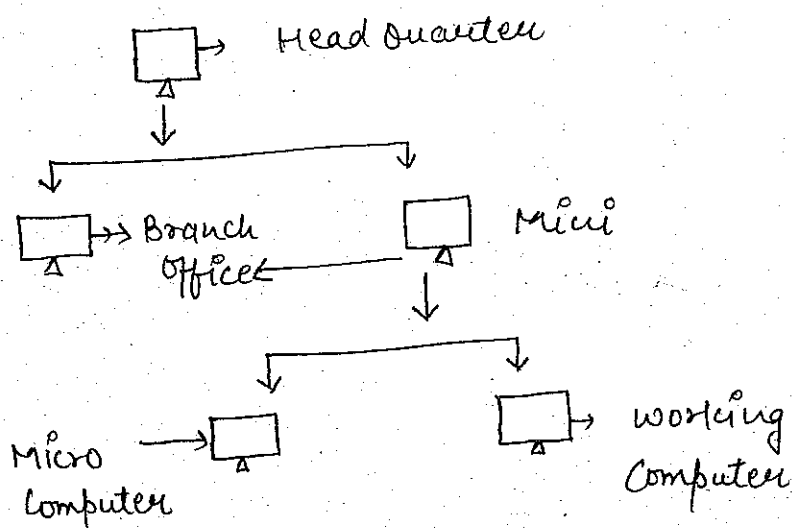
* India's fastest :- EKA [1st in world]

* other super computer's :- Anuraj, Tejas, AS-490

II. Main Frame Computer :- Second most powerful computer used as main server in a hand quarter of an organization.

CDC - 360

CDC - Cyber



III. Mini Computer :- Also known as mid-range computer used as a server in branch office of an organization.

1965 → PDP - 8

by DEC → [Digital Equipment Corporation]

IV. Micro Computers :- Used by user to perform day to day routine works.

* First micro computer is developed in 1981 by IBM known as IBM-PC

* India's first micro computer is developed in 1995 and named as "Siddarth."

✱ Latest Trend / Portable Computer :-

1. Laptop :- Also known as mobile PC or notebook used to carry from one place to another for work.

2. PDA :- used by user for daily routine activities like → make appointments, notes, surfing internet.

or make telephone call.

eg:- Hand hold device [mobile phone], Palmtop.

3. Tablet :- A computer having combine featured of laptop as well as telephone.

* Function :-

1. work station → A highly configured system used where faster processing of data is required and also used as a server in a department of an organisation.
→ It is more powerful than micro but less powerful than mini computer therefore it lies b/w these two computer.
2. Server computer → A highly configured computer system which provide various services & information over a network.
eg:- Mail server, web server, Application server, Data base server, file server.
3. Terminal :- Any computing device connected in a network.
 - Dumb Terminal :- A device connected on a network in which there is no processing capacity.
 - Intelligent Terminal :- A device having processing capability connected in a network.

Generation	Hardware / Technology	Memory Component	Programming language	Example
1. <u>I</u> 1942-54	Vacuum Tube or valve	Magnetic Drum	Machine / Binary language	ENIAC [^{1st} digital] UNIVAC [Commercial]
2. <u>II</u> 1955-63	Transistor	Magnetic Core & Magnetic Tape	Assembly, Symbolic, Machine-Oriented, COBOL, FORTRAN	IBM-4001 Honeywell-200
3. <u>III</u> 1964-75	IC → Keyboard & Mouse are introduced → Mini computer is also developed.	Magnetic Core & Magnetic Disk	Compile language Procedure Oriented language	CDC-Cyber PDP-II PDP-8
4. <u>IV</u> 1976-89	VLSI [Very large Scale Integration] → Microprocessor is introduced with Micro-Computer.	Hard-disk / CD / Magnetic disk	→ Object Oriented language → C++, Java. → <u>IVth</u> generation language → ADA, VSP	IBM-PC I-MAC
5. <u>V</u> 1990- up to now	ULSI [Ultra large Scale Integration]	BRD / HVD / Flash disk	Natural language. Artificial Intelligence	Laptop, Tablet, PPA..
6. <u>VI</u> Future	Nanotechnology & Quantum.		Quantum Core	Nano Computer, Quantum Computer.

"Software"

Set of inter-related programs to perform a particular task. Software is also known as program.

- * System Software :- Used for running hardware of computer.
- + Installation :- Saving a software in hard disk.
- * Software assigned to run and operate various resources available in system.
- * Application Software :- End user software used to perform various operations on a system.

I. System Software :- 3 Types

- ★ System Management Program :- used to manage available resources of a system.

eg:- Operating System

→ To manage and control all the resources available in a system.

- ★ System Support Software :- Support program used to execute a instruction in right and efficient manner.

eg:- Utility Software
→ Device Driver

- ★ System Development Program :- System program which provide capability to develop a program and run on a system.

eg:- Programming language, Language Translator

- Compiler
- Assembler
- Interpreter

II. Application Software :- & Type

* General Purpose :- End user software developed on mass user requirement and common to all.

eg:- Media Player, word processor.

* Customized Software :- Software developed on the basis of a particular user or organization requirement.

eg:- Payroll Inventory, Management Software.

* NOTES:-

1. Free ware :- Based on open source technology provided to user for free use.

eg:- VLC, open office, LINUX, Mozilla Firefox.

2. Share ware :- A software provided to user to use for a particular time, after that he can purchase.

3. Package Software :- Combination of more than one software.

eg:- M.S. office, Corel, DTP [Desktop Publishing Software]

* System Software :- These type of software are used to operate and run different types of resources available in a system.

A. operating system :- It is set of interrelated software which is used to manage and control all resources in a system.

eg:- M.S. windows, M-S. DOS, UNIX, LINUX, Android, MAC.

B. Programming language :- It provides capability to develop various applications for different tasks.

* Programming language

↓
Low level language

Hardware dependent prog. are developed using this language.

→ Binary :- 0 & 1 digits are used to write instruction.

② Only language directly understood by system.

→ Assembly :- MNEMONICS or symbols are used to write instruction in place of binary digits.

↓
High level language

Universal language

→ English like words and statements are used to write instructions.

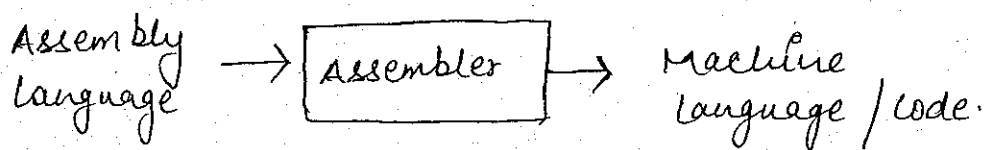
→ Compiler & Interpreter are used to translate instructions written in high level language to machine language.

* High level language :-

- A. PROLOG → Programming logic
- B. BASIC → Beginner's all purpose symbolic Instruction code.
- C. FORTRAN → Formula Translation
- D. SQL → structured query language
- E. HTML → Hyper Text Markup language
- F. C language → 1972, by Dennis Ritchie.
- G. object oriented → C++, Java.
- H. VB → Visual Basic.
- I. COBOL → Common Business oriented language
- J. LOGO → Logic oriented language
- K. ALGOL → Algorithm oriented language

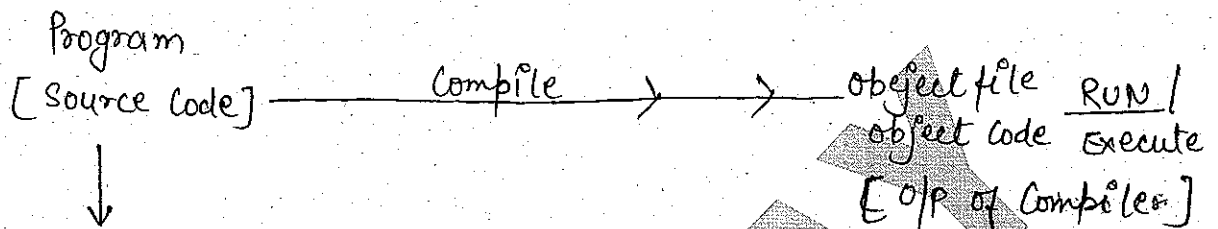
* Language Translator :- System program used to translate instruction written in one programming language to another.

A. Assembler :- This language translator is used to translate instruction written in assembly language to machine language.



B. Compiler :- This language translator is used to translate instruction written in high level language to machine code.

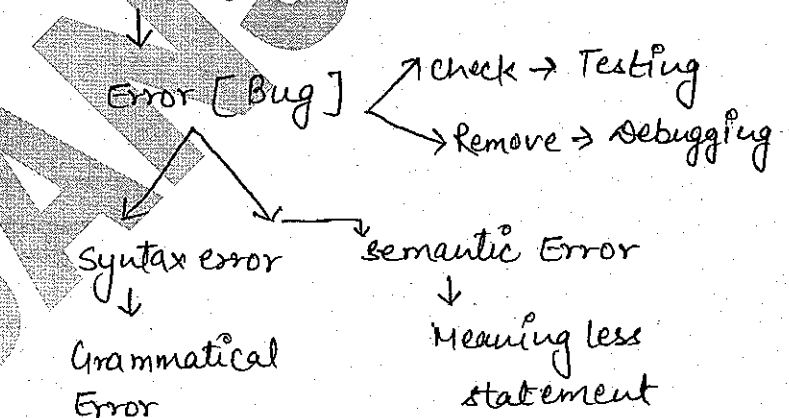
→ Compiler translate all instruction at a time.



→ Program written in a prog. language

Process of checking error or to convert it into object codes

→ The process of written prog. with the help of any prog. language is known as programming.



→ Object code provided by compiler is usable but in case of interpreter same thing does not happen.

C. Interpreter :- Similar to compiler but translate only one instruction at a time. [line by line]

D. Utility Software :- System support program, used to analyze, optimize the performance of a system as well as provide various support while executing a program.

These are basically background program.

eg:-

1. Disk Defragmentor :- used to scan disk and remove fragmented space.
2. File Cleanup :- used to remove temporary files from disk.
3. Clipboard :- used to ~~remove~~ perform cut, copy, paste operation.
4. Disk Scan :- used to scan disk and check viruses and make actions to remove them.
5. Windows Defender :- Used to protect against malicious program in a system.
6. Registry cleaner :- Used to protect important files of a software from any harmful program or file.
7. Disk Partition :- to divide a drive into multiple logical drive.
8. System Profiler :- To provide information about system like connected devices.
9. Disk Space Analyzer :- To provide info. about distribution of memory / space.
10. System Restore :- Create a point where system is error free and used to troubleshoot any problem occur in a system.

11. Antivirus :- Security utility software to protect a system against harmful program.

* Application Software :- End user program used by user to solve a variety of problem and perform various task on a system.

- A. Word Processor :- M.S. word, wordpad, open office → for documentation purpose.
- B. Presentation Software :- M.S. Power Point (slide-show)
- C. Electronic spread sheet software :- M.S. Excel, Lotus [123]
↓
[Accounting & Record]
- D. Mailing Software :- M.S. outlook, Netscape messenger, Eudora [mailing].
- E. Database Software :- M.S. Access [database]
- F. Communication Software :- IRC [Internet Relay Chat], Skype.
- G. ATP :- Corel, Pagemaker, Photoshop.
↓
[Desktop Publishing Software]
- H. Designing Software :- CAD
- I. Graphics Software :- Picasa, M.S. paint.
- J. Media Player :- VLC player, MP3 player.
- K. Mobile App :-
- L. File Converter :-
- M. Compression :- Decompression → Winzip, Winrar, Unzip.

N. web browser :- Internet Explorer, Mozilla Firefox, Opera Mini, Edge, UC Browser, Maxthon, Safari, Google Chrome, Netscape Navigator.

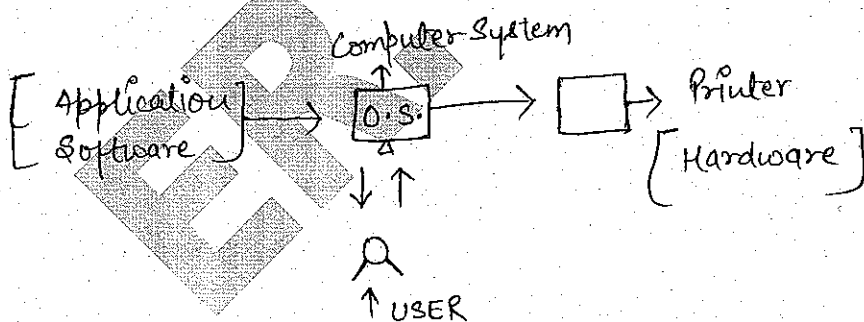
O. Accounting software :- Tally.

* "Operating system" *

System software used to manage & control all the resources available in a system.

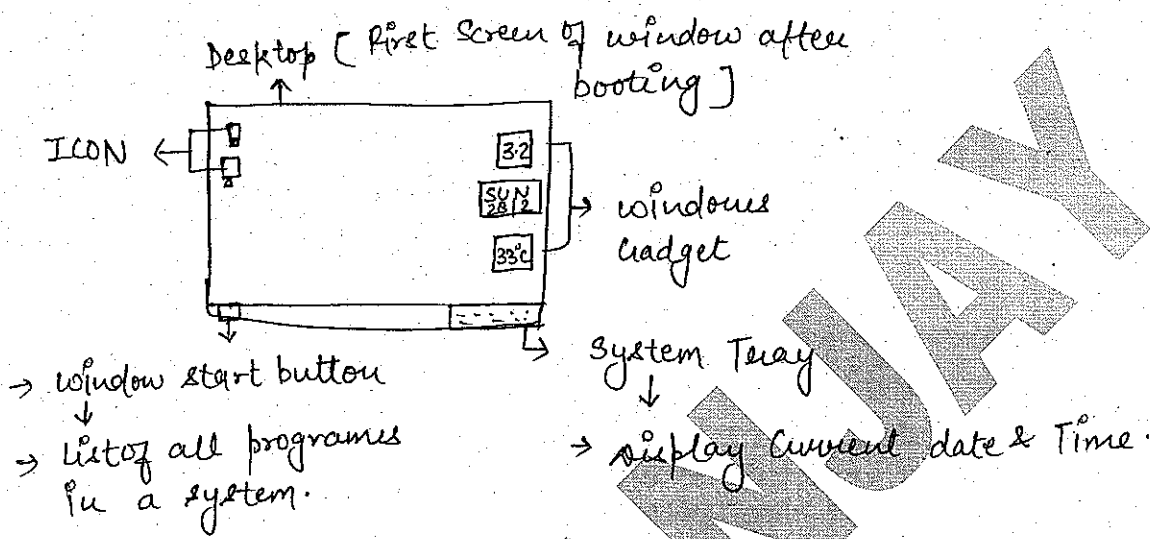
- It is also provides interface between hardware & software.
- It also provides interface between user and system to work.
- It is also known as control system / management system / supervision system / Executive system.

c:\> → Dos Prompt.

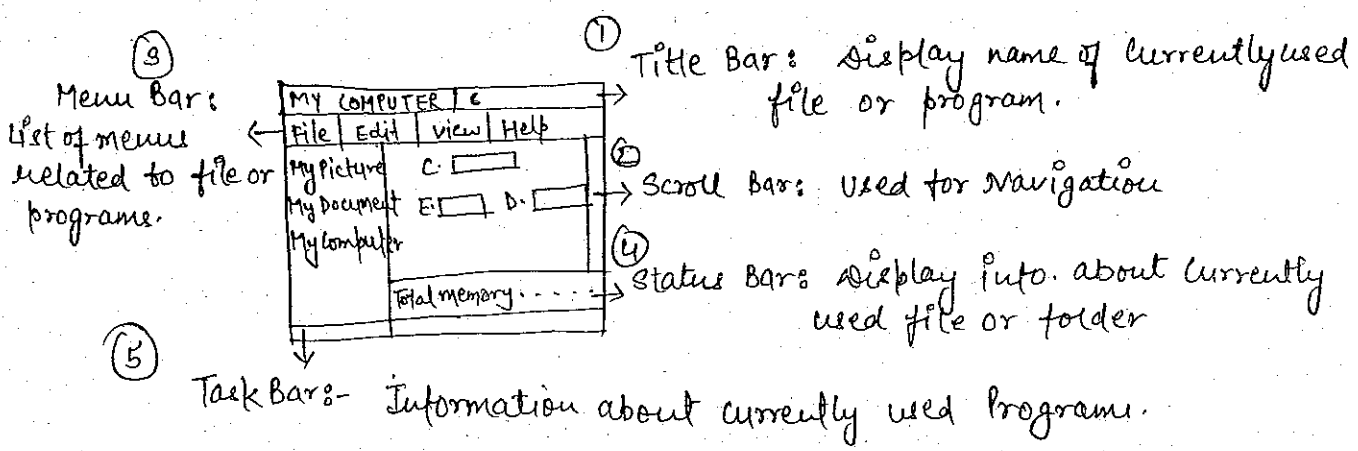


- CUI :- [Common User Interface] :- user have to write commands for any works.
- M.S. DOS :- [disc operating system] :- non-graphical & Non user friendly.
- GUI :- [Graphical user Interface] :-

- user have to select commands available in the form of option in menu.
- Graphical & user friendly.
- MS. windows, Android, Linux.



- A. **ICON** :- Graphical symbols on desktop to perform a particular task.
- B. **Task Bar** :- List of current using programs
- C. **My Computer** :- window Explorer → A program used to manage all files and folders stored in a system. [1st screen of my computer]

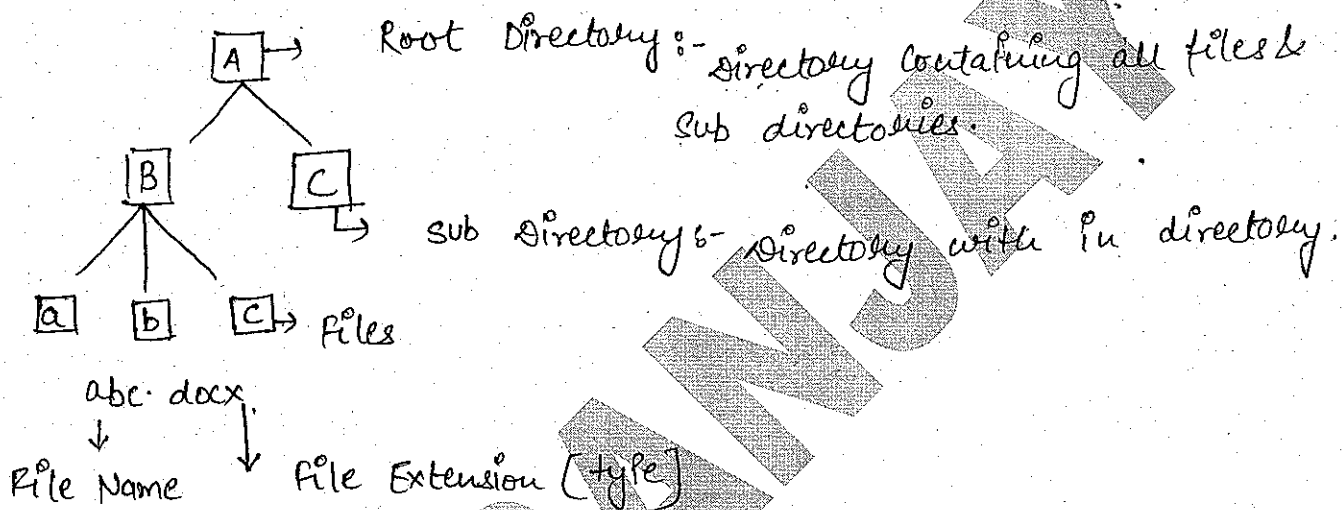


→ File System :- used for manage file & folder.

→ NTFS :- (New Technology File System)

→ Data → Info. → file → directory [Folder]

↓
→ Root Directory
→ sub. directory



* Function of operating system :-

1. File Management
2. User Management
3. Security Management
4. Scheduling

↳ FCFS :- First come first serve → simplest algorithm.

STJF :- shortest Job First.

Round Robin Scheduling → on the basis of time quantum.

5. Process Management

* Types of Processing of O.S.

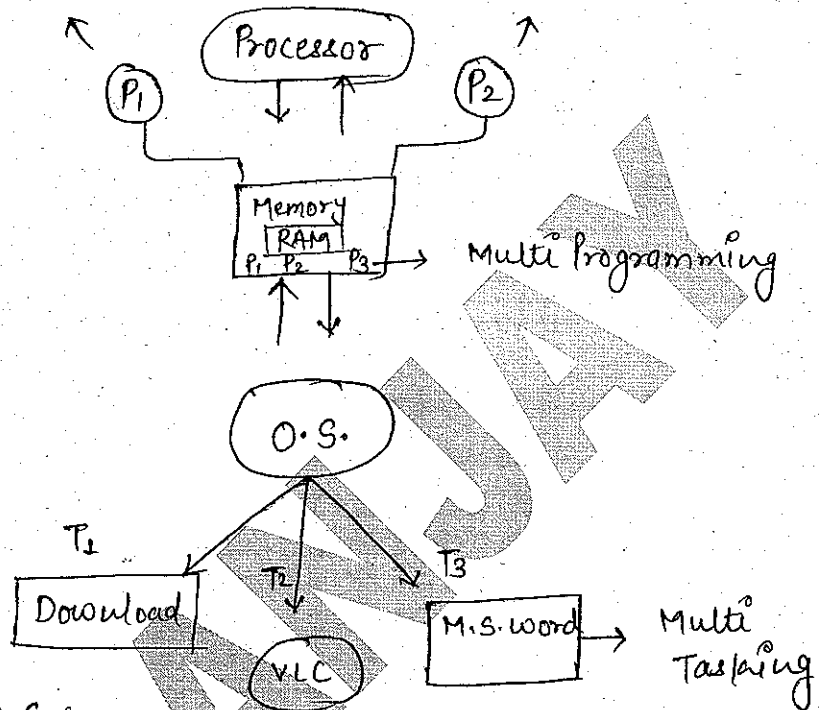
1. Multi Tasking
↓
Any work / Job

Multi Processing

I] Processor

II] User

1 + Multi program



→ Capability of O.S. :-

To execute more than one task simultaneously on a single page processor.

2. Multi Programming :-

Program → Sequence of instructions to perform a particular task.

It is used to provide multitasking capability to execute more than one program simultaneously on a single processor.

3. Multi processing / Parallel Processing :- Procedure to execute a program.

By using more than one processor at a time to execute multiple processes simultaneously at a time.

4. Online Processing :- To access information from Remote location.

Online processing is used to distribute the processing capability to different system so that more than one user can simultaneously perform operation on same system.

5. Real Time Processing :- It is similar to online processing used to perform any operation on real time manner.

* RTOS :- [Real Time operating system]

6. Batch Processing :- It is a processing in which multiple similar jobs are processed at a time in the form of batch rather than independently.

OPERATING SYSTEM

open O.S.

→ Based on open source technology and distributed freely to any user.

eg:- Android [Java based]
Linux [Linux Torvalds]

- | | |
|----------------|-------------|
| a) Redhat | b) Fedora |
| c) Ubuntu | d) Mint |
| e) open Suse | f) Mandriva |
| g) Black Linux | h) Solaris |

Closed O.S.

→ User have to purchase licence for use.

eg:- a) MAC [Macintosh]

b) UNIX

c) M.S. Window

d) Windows-1.0.

e) Windows-NT

f) Windows-95, 98

g) Windows-ME (2000)

h) Windows-XP

i) Windows-Vista, 7

j) Windows-8, 8.1, 10

25

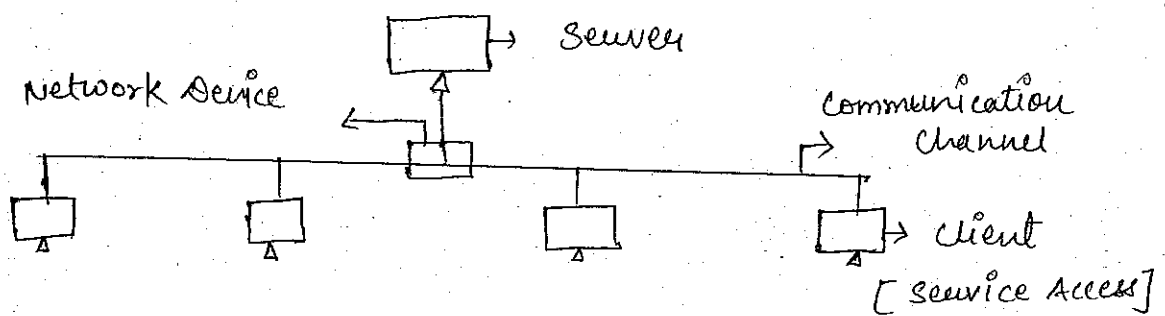
-
- Search Engine

Computer-Network And Internet Technologies

When two or more than two computing devices are connected through a media [optical fibre cable, twisted pair cable, DSL \rightarrow digital subscribe line] OR wireless technique like: wi-fi, bluetooth, infrared etc. to communicate and sharing of resource [H/w and S/w].

* Network Architecture :-

- * Network Architecture :-
 - 1. Server [Service Provider] \Rightarrow A highly configured computer system which provides various information and services on a network.
 - \rightarrow web server :- used for website access [www.] \rightarrow server
 - \rightarrow App server :- provides online application.
 - \rightarrow Mail server :- provide service of sending & receiving emails.
 - \rightarrow File server :- uploading & downloading of files.
 - \rightarrow Data base server :- server related to database.



[Client :- Server Architecture Request and Reply Mechanism]

2. **Networking Device** :- Hardware device used to connect various components of a network.
eg:- Switch, Hub, Router, Bridge, Gateway.
3. **Communication Channel** :- Responsible to deliver a message from one system to another.
eg:- Carrier signal.
4. **Client** :- A system through which various information and services are accessed provided by server.

* **Mode of Communication** :-

A. Simplex B. Half Duplex C. Full Duplex

1. **Simplex** :- Unidirectional mode of communication in which information is transmitted to only one direction.
eg:- T.V., Radio, Remote.

2. **Half Duplex** :- Bidirectional mode of communication in which data can be send & receive but

only one operation can be performed at a time.
 eg:- walkie, Tapes, Fax machine, pager.

3. Full duplex :- Bidirectional mode of comm. in which both operation i.e. send & receive can be performed at a time.

eg:- mobile comm., chat

* Types of Computer Network :-

→ Media :-

- wired network → Physical connection.
 eg:- optical fiber, coaxial, copper wire, twisted pair, DSL for local area N/w.
- wireless network → Through Electromagnetic spectrum

→ Data Transmission :-

- Peer to - Peer N/w
- Multipoint
- Broadcast

→ Area :-

- PAN → Personal Area N/w
- LAN → Local Area N/w
- MAN → Metropolitan Area N/w
- WAN → wide Area N/w

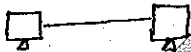
→ Ownership :-

- Intranet [Private]
- Extranet [Private]
- Internet [Public]

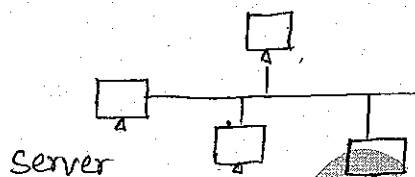
* Wireless Network :-

1. Short distance \rightarrow Infrared, Bluetooth, wifi, li-fi, xifi,
2. Long distance \rightarrow skywave propagation, Satellite Comm.

\rightarrow Peer to Peer / Point to point N/w \rightarrow In this type of N/w only one route is available to communicate two devices.

eg:- Remote control  N to N Comm.

\rightarrow Point to multipoint / Multicasting N/w :- where multiple devices can communicate through a single path.



\rightarrow Broad Casting :- Various path to communicate info.
eg:- Satellite Comm.

* PAN :- Used for personal purpose with a short distance Comm. approx up to 10 Meter.
eg:- Bluetooth personal Hotspot.

* LAN :- A N/w with in a city boundary region like school, college, building or to connect devices up to 100 M.

* MAN :- A N/w with in a city or connect devices up to 10 mile.

eg:- Cable N/w, Private telephone N/w, FM.

★ WAN :- A global N/w to connect devices through out world.

eg:- Internet

◇ Intranet :- A private N/w used for internal comm. within an organization.

◇ Extranet :- Similar to Intranet but used for external comm. used to provide 24 hrs. working facility to employee from any remote location.

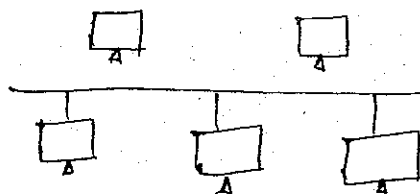
◇ Internet :- A public N/w to use information globally.

* "COMPUTER TOPOLOGIES" *

It is a way to organize different devices available in a network. All are used only for local area N/w.

1. Bus 2. Ring 3. Star 4. Tree 5. Mesh Topology

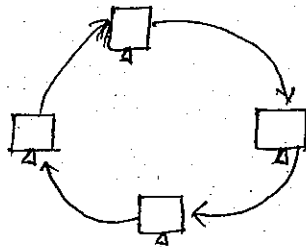
* BUS Topology :-



- All the computing devices are connected through a single, dedicated central cable.
- Unidirectional flow of data causes slow transmission.

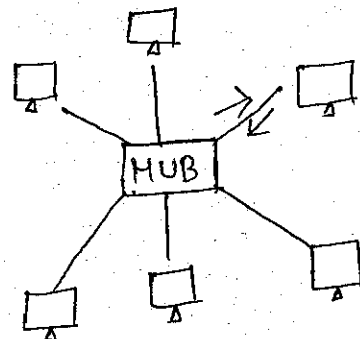
- Centre cable failure causes N/w failure.
- Large No. of computers can not be connected.

* RING Topology :-



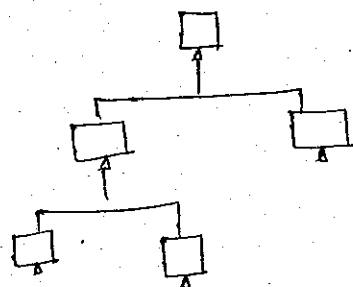
- All computing devices are connected through a single dedicated cable in a circle.
- Unidirectional and slow process.
- System or cable failure causes N/w failure.

* STAR Topology :-



- All computing devices are connected through a central device i.e. HUB.
- Central devices failure causes N/w failure.

* TREE Topology :-

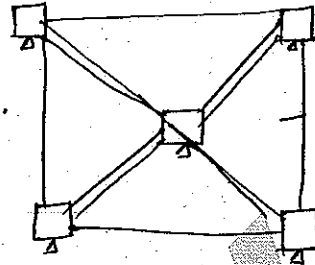


- All computing devices are connected in a hierarchy.

→ Main server failure causes complete network failure.

* MESH Topology :-

→ Used in Internet and Mobile N/w.



Ques:- If no. of computers in a N/w are 100, then by using mesh topology. How many links are required.

Ans:-

$$\left[\text{No. of links} = \frac{n(n-1)}{2} \right]$$

$$= \frac{100 \times 99}{2} = 4950$$

* " COMPUTER ADDRESS " *

Hardware / Physical Address

- Printed on motherboard provided by Network Interface Card [NIC]
- ↓
- MAC - Address
- ↓
- [Media Access Control]
- ↓
- 48 bit in Hexa decimal - Format
- eg:-
- IMEI No. of cellphone.

Logical Address

- Used for Communication Purpose
- ↓
- IP [Internet Protocol] Address
- Unique address of a particular system to provide communication and sharing resources in a n/w.

Static IP

- ↓
- Fixed address used for connection oriented services.
- TCP/IP Telnet
- VOIP [voice over Internet Protocol]

Dynamic IP

- Provided by DNS while accessing a web.
- Used for connectionless services
- DHCP [Dynamic Host Config. Protocol]

IP Address

IPV-4

[Internet Protocol
version - 4]

IPV-6

[Internet protocol Version-6]

→ 32 bit Address / 4 Byte

→ 128-bit Address / 16 Byte Address

IP address → start → CMD → IP Config ←

N/w ID: $\overset{\text{I}}{(192)} \cdot \overset{\text{II}}{168} \cdot \overset{\text{III}}{0} \cdot \overset{\text{IV}}{1} \rightarrow \text{Decimal dotted [User]}$

11000000 · 10101000 · 00000000 · 00000001 (Binary dotted machine)

1. IP address is divided into four block and each represent 8 bit. i.e.:- Octet.
2. The minimum and maximum value of a block is 0 and 255 respect.
3. The 1st block of any IP address defines its N/w ID where remaining are host ID.

Net-ID [1st block]

0 - 127
128 - to 191
192 to 223
224 to 239
240 to 255

CLASS

A

B

C

D

E

$$2^8 = 256$$

0 to 255

223 · 223 · 223 · 291 → [Invalid] · (291)

10 · 0 · 0 · 0 · 1 → Invalid (more than 4 blocks)

* "NET-WORKING - DEVICES" *

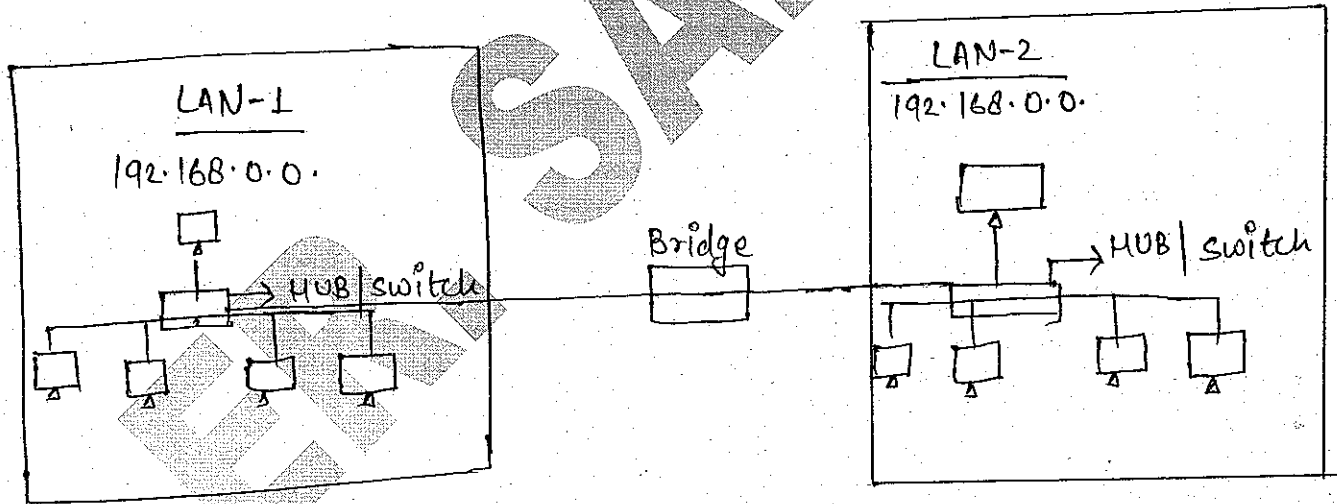
Hardware Component used to connect 2 or more than 2 different devices in a network.

1. HUB 2. Switch 3. Bridge 4. Gateway 5. Router
6. Repeater 7. Modem

* HUB :- It is used to broadcast info. in a N/w to connected devices with similar manner.

→ Provides lesser security.

* SWITCH :- Similar to Hub but provide more security and transmit info. to define destination.

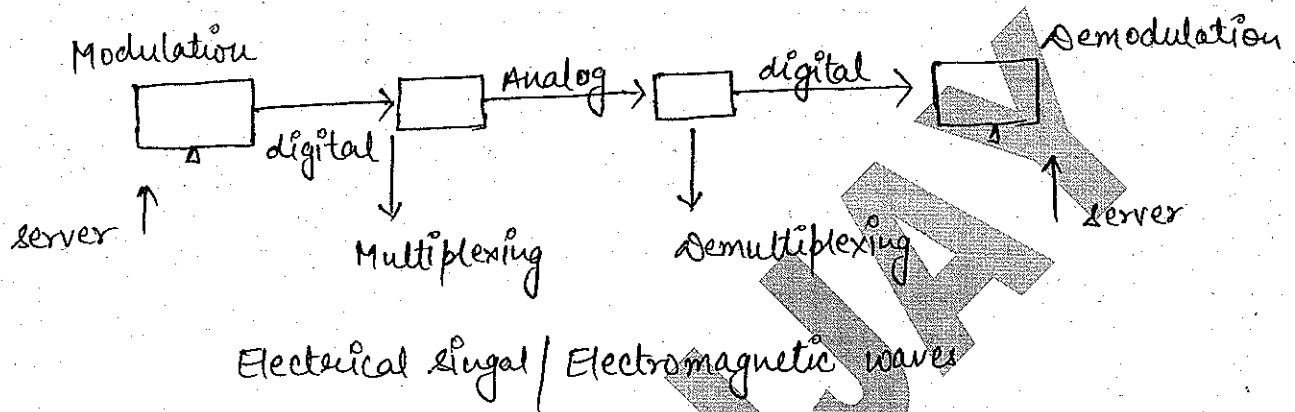


* BRIDGE :- Used to connect similar types of LAN.

* ROUTER :- Used in Internet or used to connect different types of network.

* **GATEWAY**:- Used to connect two different LAN.

* **MODEM** :- Modem is telecommunication device responsible to convert data analog to digital, or digital to analog.



* **REPEATER**:- It is used to regenerate a signal when due to network congestion the signal performance is degraded.

* **PROTOCOLS:-** These are set of rules and regulations to provide communication and services on a N/w.

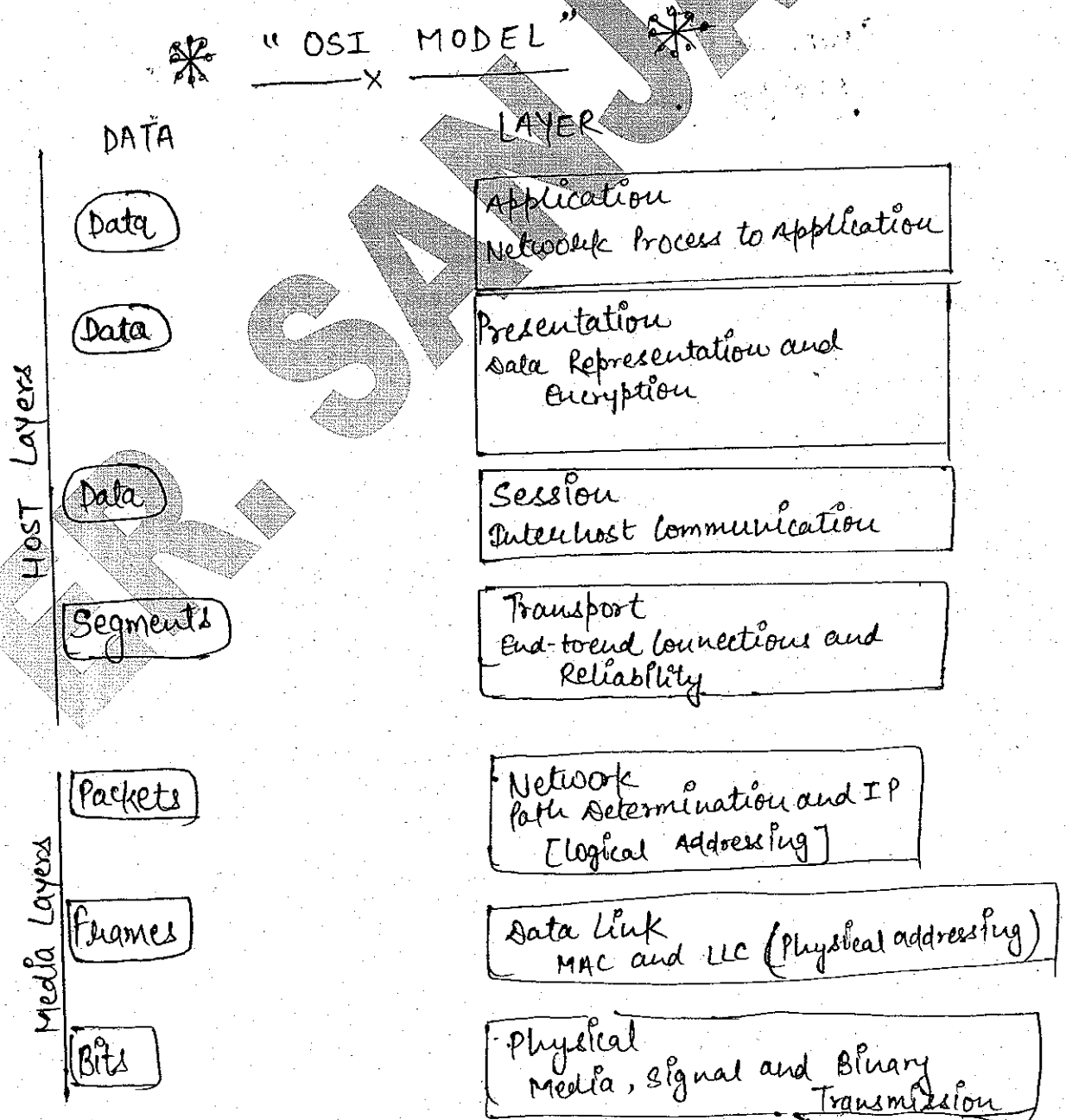
1. **HTTP :-** Hyper Text Transfer Protocol.
→ provides access to web.
2. **FTP :-** File Transfer Protocol.
→ To upload & download file.
3. **SMTP :-** Simple Mail Transfer Protocol.
→ To send email.
4. **POP3 :-** Post office Protocol version 3.
→ To receive Emails.
5. **DHCP :-** Dynamic Host Conf. Protocol.
→ To provide dynamic Ip.
6. **UDP :-** User datagram protocol.
→ Used to send packets.
7. **TCP :-** Transmission Control Protocol.
→ Responsible for end to end delivery of packets.
8. **RIP :-** Routing Info. Protocol.
→ Provide route to transmit a packet.
9. **OSPF :-** open shortest path 1st
→ Provides least distance path to transmit packet.
10. **Telnet :-** Telecommunication Network.
→ To provide access a system from remote access.

11. IP :- Responsible for routing of packet.

NOTE :-

→ Data transmitted through a network is first divided into little chunks, i.e. known as packets [collection of various bits] and the binding of these packets into a single unit is known as datagram.

12. SSL :- Secure Socket Layer :- Provides Security to transaction.



TCP / IP model

Application

Transport

Network

Network
Interface

Protocols and services

HTTP, FTP,
Telnet, NTP,
DHCP, PING.

TCP, UDP

IP, ARP, ICMP,
IGMP

Ethernet

OSI Model

Application
Presentation
Session

Transport

Network

Data link
Physical

* Internet and Technologies *

Evolution of Internet

→ 1969 - ARPANET → J.C. Licklider
↓
Advance Research Project
Agency Network

→ Public N/w;
International N/w;
N/w of N/w;
Global Network

→ 1973 - TCP/IP → con to f.
Transmission Control
protocol / Internet Protocol.

→ ISP: - This N/w is used to
provide connectivity to
all the devices through
out world.

→ 1989 - www. Tim Berners Lee
world wide web.

→ 15 Aug. 1995 - VSNL
[Videsh Sanchar Nigam Limited]

BSE SENSEX

• ISP :- Internet Service Provider → BSNL, VSNL, MTNL

• WWW :- web server → collection of all public websites.

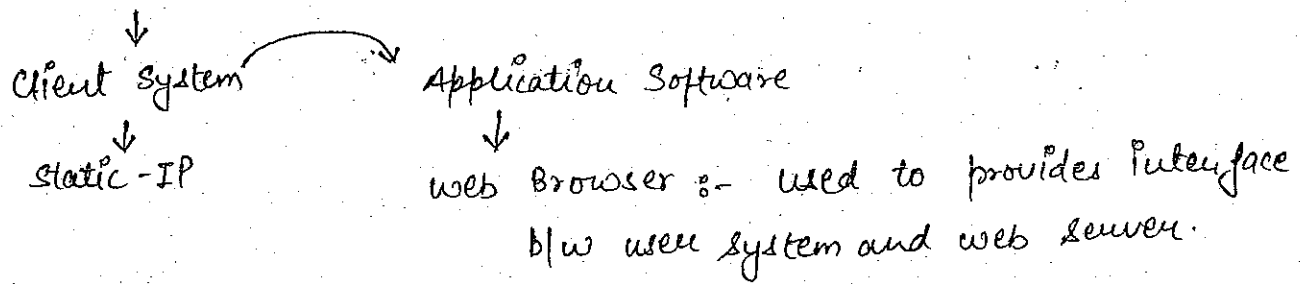
↓
web document

↓
HTML language

www

DNS → Domain Name System
↑ ↓ → (Dynamic Name server)
web-address

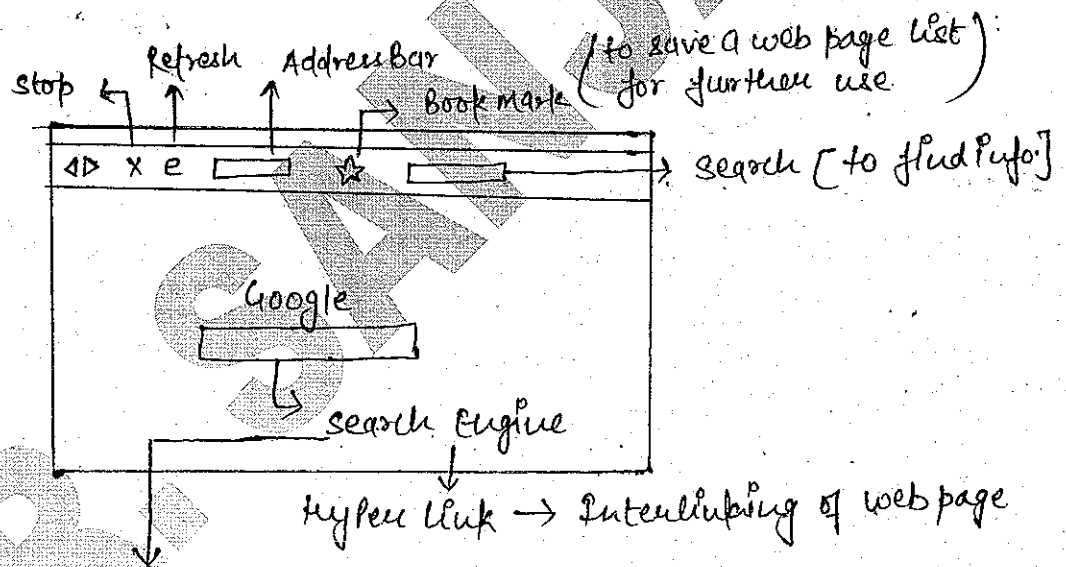
↑
web-surfing



→ web browsers :- Internet Explorer - UC Browser, Edge, Maxthon, Netscape Navigator, Google Chrome, Mozilla - Firefox, Opera Mini, Safari, Lynx.

→ uploading :- uplinking.

→ Downloading :- Downlinking.



Google, Yahoo, MSN, Lunaji, Alta Vista, Askle Bing.

→ URL :- [Uniform Resource Locator] } web address

→ URI :- [Uniform Resource Identifier]

• $\text{http} : // \text{www.tcs.co.in} / \text{directory} / \text{file name}$

I ↓ Protocol

II ↓ web server

III } Host Name

IV } Domain - Type of web.

* Top level Domain

- • .com - Commercial
- • .gov - Govt.
- • .org - Organisation
- • .edu - Education
- • .univ - Universities
- • .milt - Military
- • .net - Network
- • .co - Company
- • .info - Information

Country Code

- .in - India
- .au - Australia
- .usa - America
- .uk - United Kingdom
- .pk - Pakistan

DNS :-

Domain Name System

→ Responsible for naming & managing domain.

* Application of Internet *

1. Email:- Electronic Mail \rightarrow way of communication in electronic manner by using Internet.

Mail Server [Email, YahooMail, Hotmail, Rediff]

A. SMTP :- Simple Mail Transfer Protocol → Send

B. POP 3 :- Receive

c. IMAP :- Internet Manage Access Protocol \rightarrow management of mail box.

→ Email Address :- xyz@gmail.com

Unique Address

{ Local Part :
User Name }

Global Post
[Domain Name]

Inbox	To: Receiver address •
Draft	CC: Carbon copy
Compose	BCC: Blind CC
Trash	Sub: Sub. of Email
Spam	
Sent	Message body - Content of Email
	<input type="text"/> A ab abc

Mail box :- storage place where sent or received mail are organized.

Attachment → Any file attached from Computer storage for sending.

→ Inbox :- Received Mail

→ Draft :- Mail prepared but send later

→ Compose :- To create a new mail

→ Sent :- Sent email

→ Trash :- Deleted Mail

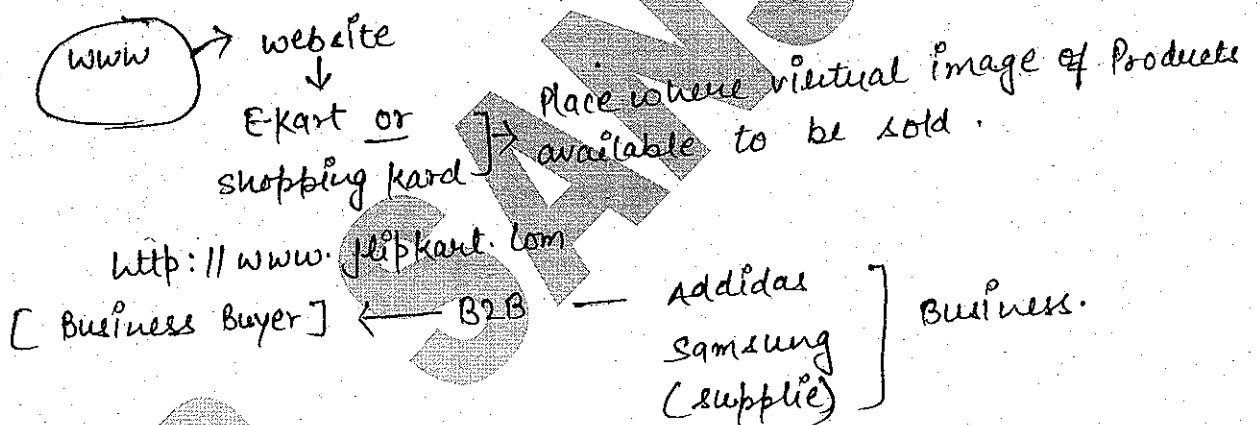
→ Spam :- Collection of malicious Junk file containing malware virus, spyware etc.

- cc and BCC both are used to send a email to multiple user at a time, but in cc recipient address is visible to all receiver but in case of bcc it is not visible to all receiver.

* E-commerce [Electronic] *

The way of selling and buying of goods and services through Internet.

- * Supplier :- Person or group who provides raw material on huge amount.
- * Buyer :- Person or group who buys products or services from supplier to sell them, but not for consume.
- * Consumer :- The person who purchase goods from buyer to consume.



* Types :-

1. B2B [Business to Business] :-
Any commercial activity b/w two business organisation
2. B2C [Business to Consumer] :-
A commercial activity b/w Buyer and consumer.
3. C2C [Consumer to Consumer] :-
Any commercial activity b/w two consumer.

4. C2B [Consumer to Business] :-

Product or services are provided by consumer to business organisation.

5. G2B [Govt. to Business] :-

6. B2E [Business to Employee] :-

* Process In E-Commerce *

1. Order logging :

SCM :- Supply chain Management

↓
overall demand and supply management and End to End delivery of product.

2. EDI :- Electronic data Interchange

↓
way of communication to provide into electronic manner.

3. EFT :- Electronic Fund Transfer

↓
way of transferring amount from one account to another in electronic manner.

eg:- ① POS - point of sale.

② debit or credit card transfer

③ E-banking

4. CRM :- Customer Relationship Management

↓
overall management of consumer before and after sale.

* E-Banking *

Electronic Banking / Virtual Banking / Net Banking / Internet Banking

→ The processing of providing banking services to an user through Internet.

- User Name → Unique name to access a bank account provided by bank to an account holder.
- Login Password → Secret Code provided with username to access account.
- OTP → One time pass code send to registered mobile or e-mail which is required to complete any transaction.
- NEFT → Process to transfer fund from one user account to another added user account on national level.
- RTGS → Real Time Gross Settlement
↓
To perform any transaction in real time manner, means process performed at the same time when any transaction is performed.

* E-Security *

36

→ Security Threat :-

1. Intellectual Property :- use of info. available on web in unauthorized manner or without owner's permission.
- Software Piracy :- use software without owners permission.

2. Client System Threat :-

↓
1. Virus [Vital Info. Resource under seize] :- It is a computer program known to replicate themselves. It attach with any file and effect its processing.

2. Trojan Horse :- A type of virus use to access a system from remote location in unauthorized manner.

3. Hacking :- The act of stealing info. or breaking security of user's system to access it in unauthorized manner.

→ The person involve in hacking is known as hacker.

3. Communication channel Threat :-

A. DOS :- Denial of service → service is available but deny by a server due to unauthorized control.

B. stealing of info :-

4. Server Threat :-

- File Transfer threat → Transferring of malicious files.
- Spamming → Sending of various harmful messages.
- Phishing → Technique of hacking in which a duplicate web page is provided that original.

* Security Measures :-

1. Authentication and Authorization :- Provide security to Intellectual Property threat.

→ Information available on a NW is provided through authentication.

2. Client System Security :-

A. Antivirus → A security utility program to protect a system against viruses.

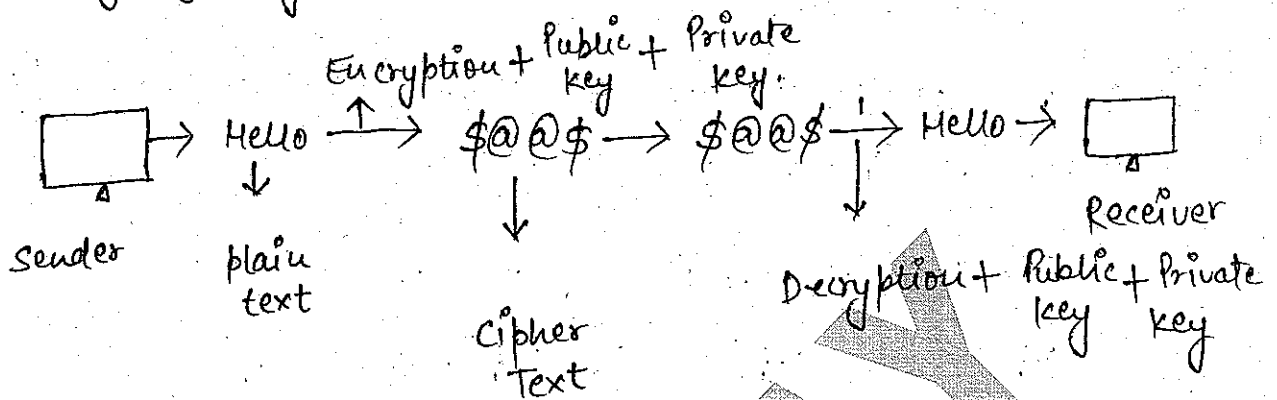
B. Antispyware → A type of security program to protect a system from malware, spyware, trojanware.

C. Windows defender → An utility to restrict harmful program to install.

D. Browser Protection → Info. and file are scan by browser before downloading.

3. Communication channel security :-

A. Cryptography \rightarrow Greek word \rightarrow KRYPTOS [To hide]



B. Encryption \rightarrow The process of encrypting a message into code before sending.

C. Decryption \rightarrow The process of decrypting a message from encrypted code at receiver end.

D. Symmetric \rightarrow Key crypto system :- similar key pairs are used for encryption and decryption i.e. public key.

E. Asymmetric key crypto system :- Different key pairs are used i.e. public key for encryption and private key for decryption.

F. Digital Signature :- It is a process of asymmetric key crypto system which is used to authenticate electronic record and verify subscriber.

4. Server Security :-

A. Firewall \rightarrow A combination of software and

hardware to protect a system from unauthorized use.

* M.S. OFFICE *

It is software package or office suite developed by Microsoft Corporation in 1989.

→ The various version of M.S. office are :-
office-3.0, office-95, office-97, office-2000,
office-2003, office-2007, office-2010, office-2013
office-2016 [latest version].

• Various application program in M.S. office.

- A. word processing software : M.S. word
- B. Presentation software : M.S. power point
- C. Electronic spread sheet software : M.S. Excel
- D. Mailing software : M.S. outlook
- E. M.S. Access : Data base software

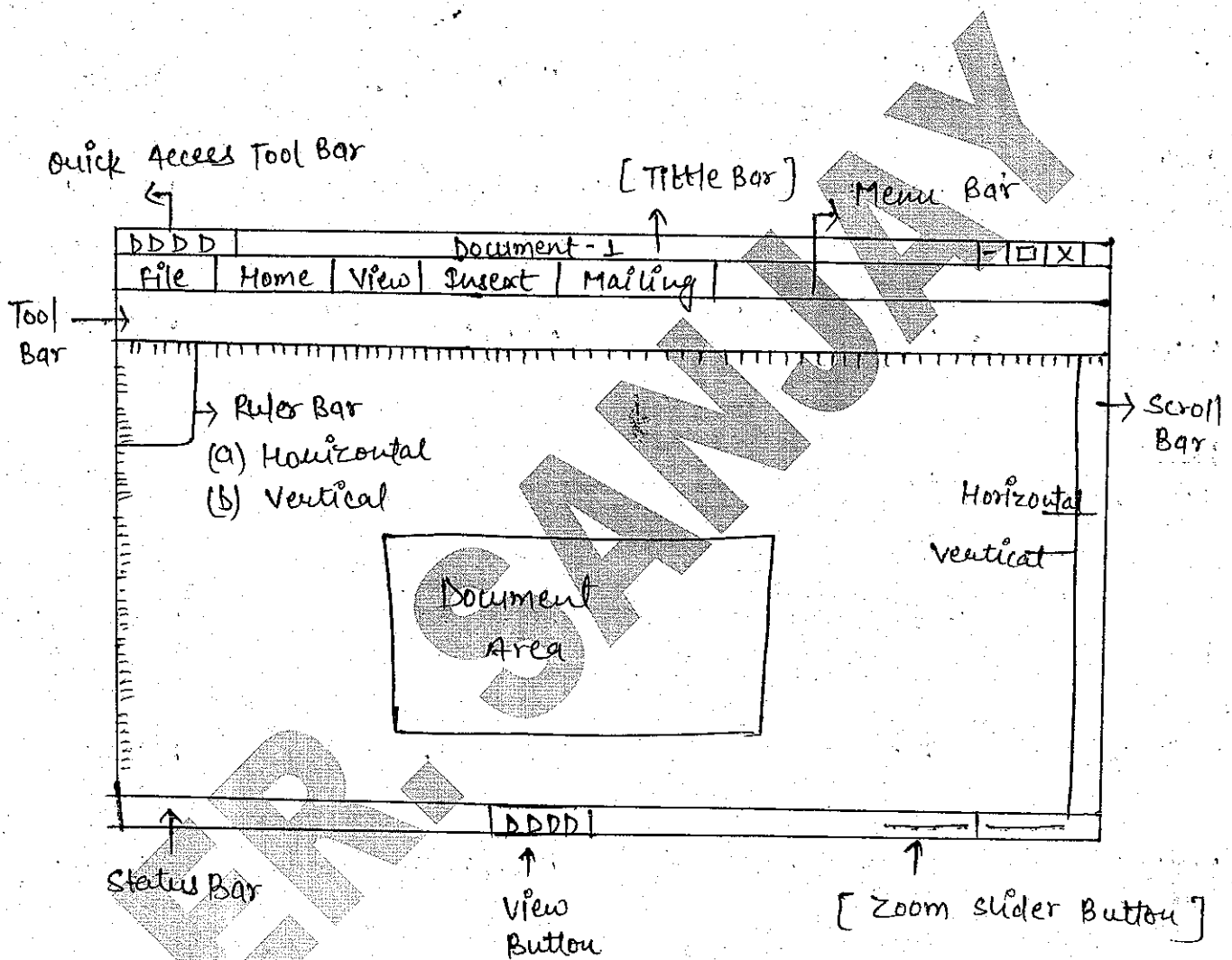
M.S. office

	M.S. word	M.S. powerpoint	M.S. Excel
Purpose:-	Documentation	Presentation / slide show	Record / Accounting
File :-	Document	slide	sheet
Default Name :-	Document 1	Presentation 1	Book - 1
File Extension:-	• docx	• pptx	• Xlsx
Font size :-	8 to 72	8 to 96	8 to 72
Zoom size :-	10% to 500%	10% to 400%	10 to 500%
Orientation:-	potrait	Land Scape	potrat
program :-	winword.exe	powerpoint.exe	excel.exe

* Microsoft word *

→ It is a word processor software developed by Microsoft Corporation.

→ It is used to create, edit, a document.



❖ Computer window ❖

1. Title Bar :- A bar displayed at the bottom. It display the name of file currently used.
2. Menu Bar :- A bar just below title bar where different menus are shown.
3. Tool Bar :- A bar just below menu bar where different options are shown which are relevant to different tabs shown in menu bar.
4. Ribbon :- It organize menubar and toolbar in a single unit.
5. Ruler Bar :- It is also known as scale of word, which is used to provide margin or spacing a document.
 - There are two Ruler Bar :-
 1. Horizontal Ruler Bar
 2. Vertical Ruler Bar
6. Scroll Bar :- This bar is used for navigation purpose.
 - There are two scroll Bar :-
 1. Horizontal scroll Bar
 2. Vertical scroll Bar

7. Status Bar :- This bar is displayed at the bottom of the word window in which information about currently used file is displayed.
8. View Button :- This is available on status bar to display a document in view.
9. Zoom Slider Button :- This is used to minimize or maximize a document for display.
10. Quick Access Toolbar :- This is shown at the top of the word window where frequently used menu are available like:
- A. New [Ctrl+N] :- To create a new document.
 - B. Open [Ctrl+O] :- To open an existing document.
 - C. Save [Ctrl+S] :- To save a document.
 - D. Save As [F12] :- To save a document with new name, or new location.
 - E. Print [Ctrl+P] :- To print a document.
 - F. Undo [Ctrl+Z] :- To cancel last changes.
 - G. Redo [Ctrl+Y / F4] :- To Apply last changes.
 - H. Close [Ctrl+W / Alt+F4] :- To close word-window.

* File - Menu :- This is a menu which is available in M.S. word 2010 in the place of office button available in word - 2007.

- This menu have various options relevant to file like :-
Open, Save, Save As, Print etc.

* Various - Tabs Available in M.S. - word :-

1. Home Tab :-

A. Clip board Block :- This is used for cut, copy, paste operations.

- Copy :- [Ctrl + C] :- To copy selected text.
- Cut :- [Ctrl + X] :- To cut selected text.
- Paste :- [Ctrl + V] :- To paste copied text.
- Paste as special :- [Ctrl + Alt + V] :- To paste selected part

- Format painter :- To match the pasted data.

B. Font - Block :- Used for font formatting.

- Font face design Type :- [Ctrl + D, Ctrl + Shift + F]
↓
To change font design.

Note :- Times, new Roman, Arial, Calibri, Cambria are example font face.

- Font size :- [Ctrl + Shift + P] :- To change font size.

↓
Default Min. & Max. font.

Size is 8 and 72. Font size is measured in points.

- Increase font :- [Ctrl + Shift + >]
To increase font size.
- Decrease font :- [Ctrl + Shift + <]
To decrease font size.
- Change case :- To change case of selected text.

↓

* Five Types :-

1. UPPER CASE :- ABC ABC ABC.
[All in upper letter]

2. LOWER CASE :- abc, abc, abc
[All in small letter]

3. TITLE CASE :- / Capitalize each word.
ABC, ABC, ABC.

First character of every word is in upper letter.

4. SENTENCE CASE :- Abc, abc, abc.

Default case of M.S. word, where first character of sentence is Capital and remaining in small letter.

5. TOGGLE CASE:- abc , abc , abc.

first character of every word is in small.

3. BOLD [Ctrl+B]:- To Bold text. [abc]

4. Italic [Ctrl+I]:- To Italicize text. [abc]

5. Underline [Ctrl+U]:- To underline text. [abc]

6. Super script : [Ctrl+shift+]
To write a text in power / exponent.
 x^2 , x^2y^2 , $(a+b)^2$

7. Sub script :- [Ctrl+] :-
To write a text in base.
 a_2b_2 , H_2O , $\log_{10} 10$.

8. Strike through :- [Ctrl+8] :-
To cut a text from middle.

4. Paragraph Block:- Used for paragraph formatting.

↳ (A) Numbering and bullets :-

(B) Increase Indent [Ctrl+M] :- To Increase spacing of paragraph.

(C) Decrease Indent [Ctrl+Alt+M] :-

To decrease spacing of paragraph.

④ Line spacing :- To provide space between two lines of a paragraph.

- ↓
- single line space [ctrl+1]
 - double line space [ctrl+2]
 - 1.5 line space [ctrl+5]

⑤ Alignments :-

- left Align [ctrl+L]
- Right Align [ctrl+R]
- Centre [ctrl+E]
- Justify [ctrl+J]

5. Style Block :- [Alt+ctrl+shift+S]

To change complete style of a documents.

6. Editing Block :-

- a) Find [ctrl+F] :- To find a text.
- b) Replace [ctrl+H] :- To find and replace.
- c) Goto [ctrl+G] :- To move from one place in a document.
- d) select All [ctrl+A] :- To select whole document.

* **INSERT TAB :-** To insert various objects in a document.

i) **Page Block :-** To preprare various pages for a document.



a) **Cover Page :-** To insert cover page.

b) **Blank Page :-** To insert blank page.

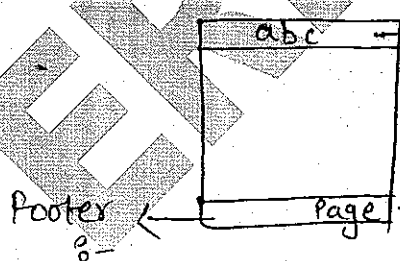
c) **Page Break :-** [Ctrl + Enter] To insert page-break.

ii) **Table Block :-** To insert a table in document.

iii) **Illustration Block :-** To insert various objects like - diagram, picture, auto-shape etc.

In M.S word, clipArt is known as ready to use.

iv) **Header & Footer Block :-** To insert Header and footer in a document.



Header :- Text at the top of document in every page.

Footer :- Text Printed at the bottom of every page.

iv) **Link Block :-**

A. **Hyper-link [Ctrl + K] :-** To insert hyper link.

B. **Book Mark :-** To insert book mark.

vi) Text Block :-

A. Word Art :- To design a text.

B. Drop Cap :- To insert special effect of first character of a paragraph.

3. PAGE LAYOUT TAB :- This is used for formatting
↓
Pages of a document.

i) Theme Block - To insert new theme.

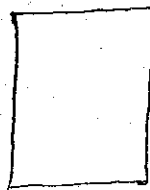
ii) Page Setup Block.

(a) Page Size

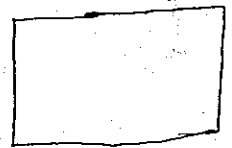
↓
To change page size
like A4, A3, A5, letter,
legal.

(b) Page Orientation

↓
To change page
layout



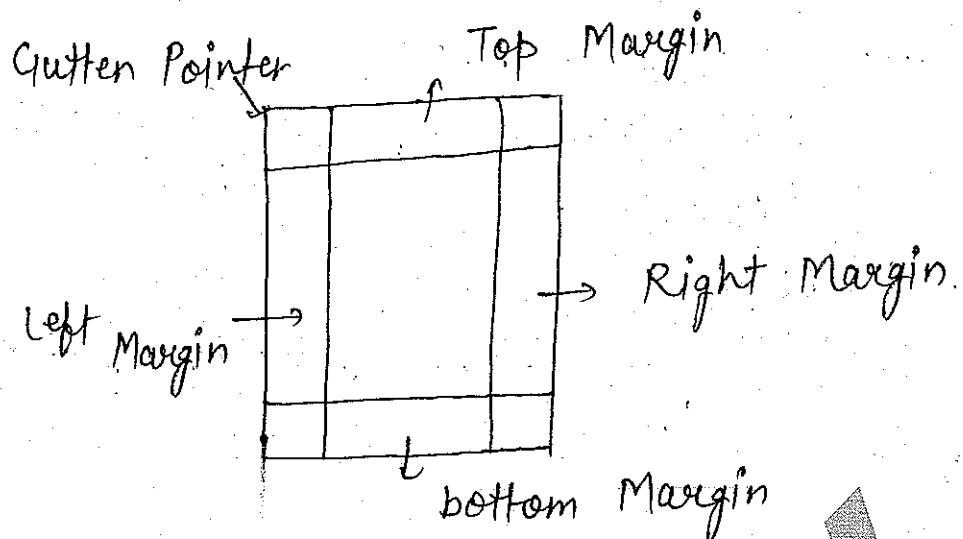
Portrait



landscape

Default is portrait orientation.

(c) Page Margin - Space, left-right and Top-bottom in a page.



Gutter Pointer is used at the top and left of a document.

(iii) Page Background Block - to change background for a document page.

(a) Page border - to insert page border.

(b) Water Mark - text or image inserted into background.

(iv) Paragraph Block -

(a) Indent : Space left b/w left and right side of a paragraph.

(b) Spacing : Space left b/w two paragraph of a document.

4. References Tab - To provide reference in a document.

(a) Foot Note : (Alt + Ctrl + F)

Text written at the end of page for reference.

(b) End Note : (Alt + Ctrl + D)

Text written at the end of document for reference.

5. MAILING TAB -

Mail Merge : Most important function of MS-Word to draft a letter and send it to multiple mailing address.

- used to create invitation letter, draft and envelope label etc.

6. REVIEW TAB -

It is used for review a document.

(i) Proofing Block :

(a) Spelling and Grammar (F7) :

used for spelling and grammatical mistakes.

To display Error :

Red colour line : Spelling Error.

Green colour line : Grammatical Error.

Blue color line : Formatting Error.

(b) Thesaurus : (Shift + F7)

This is used to provide similar words of selected text.

(c) Translate : used to check a word in another language.

7. VIEW TAB

(i) Document view : To view a document in different view.

- (a) Print layout view - default view
- (b) Web layout view - webpage
- (c) Reading view - full screen view
- (d) outline view - To check outline level
- (e) Draft view - Simplest view without any image or formatting.

(ii) Zoom : To display a document in different size.

Min = 10.1 and Max = 500.1

Standard zoom size = 100.1

(iii) Macro : Collection of various commands used for formatting.

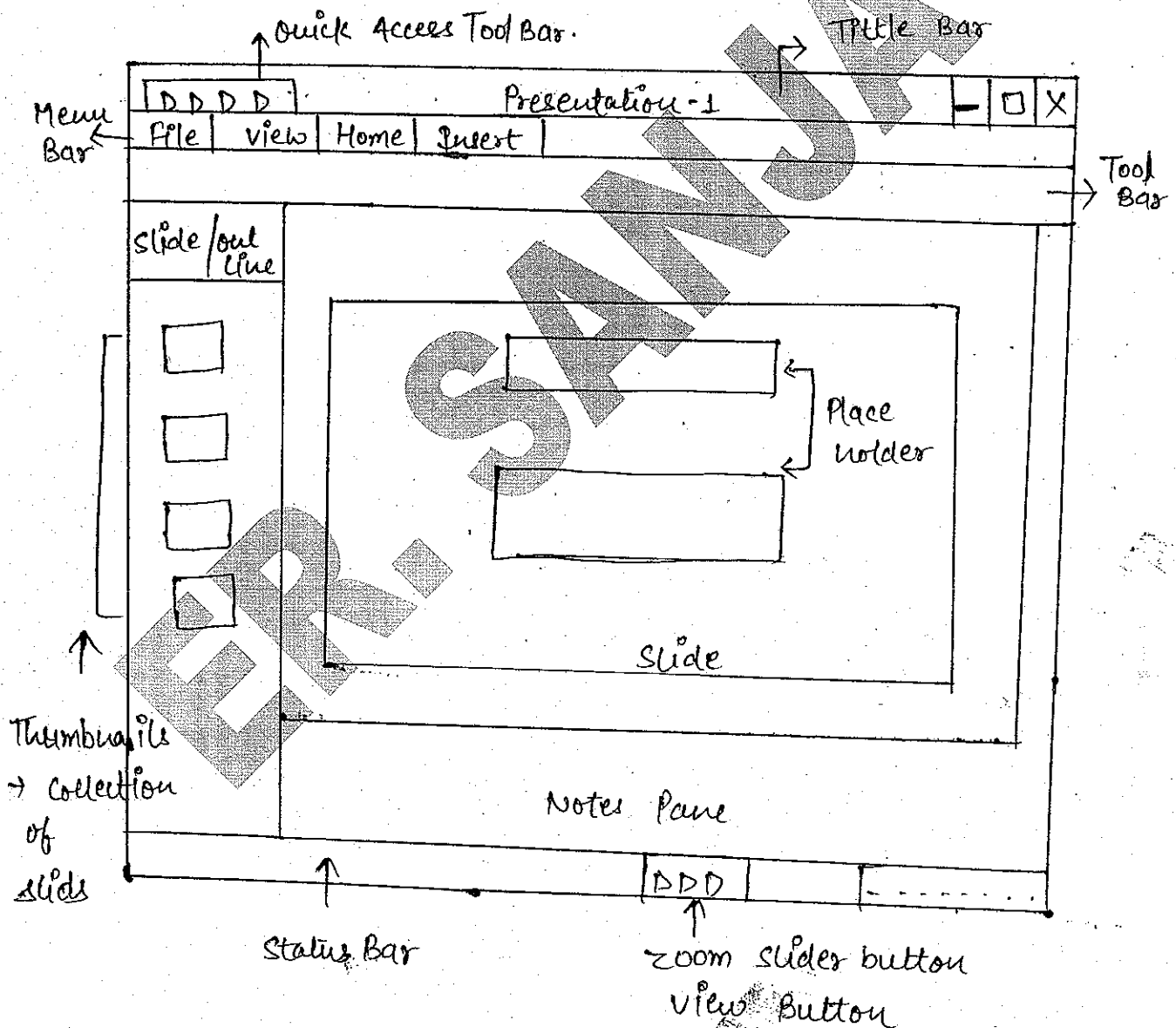
Note : A text automatically goes to next line is known as word-wrap.

- A file with pre-define setting is known as template file.

* M.S. POWER-POINT *

It is used for making presentation and slide-show.
Different types of files are used for creating a presentation like → Audio, Animation, Video etc.

[Power Point - Window]



* Components of Powerpoint - window *

- i) Place holder :- Place where different object are presented in a slide.
- ii) Thumbnails :- Collection of slide.
- iii) Slide pane :- To view list of slide available in presentation.
- iv) Outline pane :- To check outline level of slides.
- v) Notes Pane :- This area is used to create notes related to a slide and this pane is not shown while slide-show.

* Various - Tabs In M.S. Powerpoint *

1. HOME TAB :- This is used for formatting by using it we can change font size, type, color etc.

NOTE:- Ctrl+N is used to create new presentation
 Ctrl+M is used to insert new slide in existing presentation.

2. INSERT TAB :- This is used to insert various object like - Picture, Graph, picture etc. in a slide.

NOTE:- In M.S. Powerpoint Ready to use means

clipart.

3. DESIGN TAB:- This is used to change design of a slide like layout, color etc.

NOTE:- Default slide orientation is landscape.

4. TRANSITION TAB:-

Slide Transition:- This is used to apply special effects b/w two slides of a presentation. It is also used to motion and speed of slide show.

Eg:- BOX, CUBE, DOOR.

5. ANIMATION TAB:-

Slide Animation:- This is used to apply special effects on the object inserted in the slide.

Eg:- Fly-In, Float, Fade, Cascade.

6. SLIDE SHOW TAB:- This is used to display a slide with transition or animation on full screen. To start slide show from beginning "F5" key is used where shift + F5 is to start slide show from current slide.

4. REVIEW TAB :- This is used to check spelling and grammatical errors in a slide.

8. VIEW TAB :- This is used to view a slide into different views.

i) slide view :-

- a) normal view
- b) default view

ii) Reading view :- To open in reading mode and read.

iii) slide sorter view :- To display all slides of presentation at a time.

iv) Notes page view :- To display notes page of selected slide.

B. ZOOM :- To resize a slide.

Min = 10% & Max = 400%

Default zoom size = 69%.

C. slide Master :-

Master slide :- To insert and object in all slide of presentation in same manner.

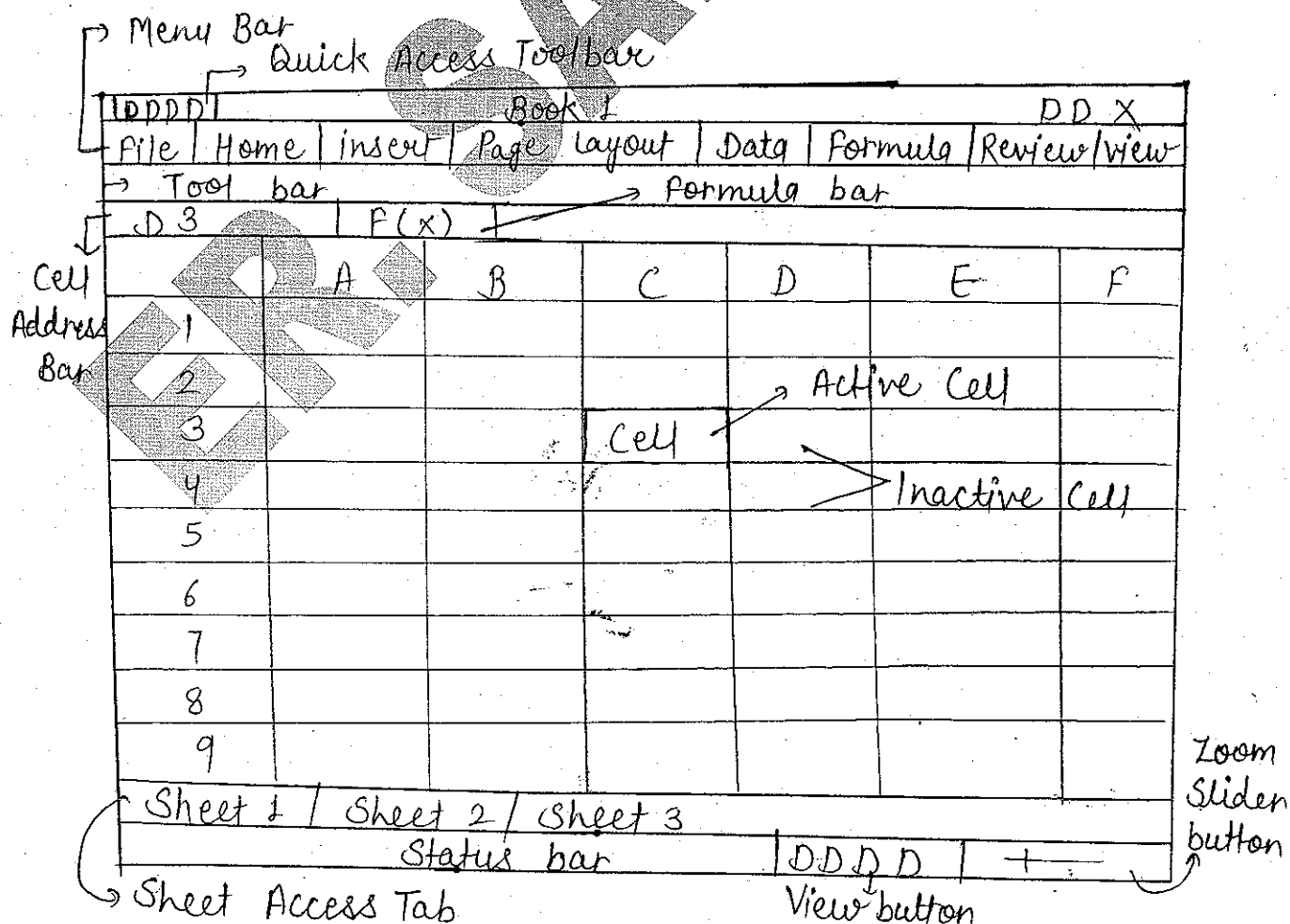
D. Handout Master :- To insert Header and footer in all slides.

NOTES :-

1. First slide of Presentation is Home-slide.
2. Notes provided to speaker to remember something about presentation is speaker's Note.
3. Notes distributed at the time of presentation to the listener is known as Handout.

* M.S. EXCEL *

- It is also known as electronic spreadsheet or accounting software.
- Table is used as data structure to store data in M.S. excel.
- Table is defined in Rows and Columns.
- Column of table is known as attribute or field where it store only similar type of datatype.
- Row of table is known as record or tuple where different value but relevant to each other is stored.



ER. SANJAY

- Intersection point of Row and Column is known as well.
- Currently used cell is active cell and remaining is inactive cell.
- There are 10,48,576 rows and 16,384 columns in excel-2010.
- First address of row is 1 and last address is 10,48,576.
- First address of column is A and last address is XFD.
- Currently cell address is displayed in cell address bar.
- No. of characters allowed in a text field are 255 and only one value is entered in boolean cell.
- In M.S. excel there are 3 sheets and name of sheet can be maximum upto 31 characters.
- Default length and breadth of a cell in M.S. excel is 12.50 and 8.43 mm.
- Sign ##### displayed in a cell shows that due to insufficient space data can't be displayed.
- Formula bar is used to write formula in M.S. excel and shift+F3 is used to insert a function in a cell.

→ To view available function list function wizard is used.

* Formula operators:-

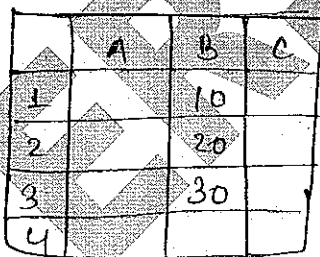
A. Arithmetic operator :- $+$, $-$, $*$, $\%$,
for arithmetic calculation.

B. Logical operator :- AND, OR NOT for logical calculation.

C. Text operator :- (&)
To add / combine Text

D. Reference operator (:)
To define cell address range.

How to create formula :-



	A	B	C
1		10	
2		20	
3		30	
4			✓

1. select cell in which formula to be inserted.
2. Type equal to = sign.
3. write function name
4. Define cell address range or value.

'DBMS'

(50)

'Database Management System'

Database :- A database is a organized or structured collection of data that is managed to meet the needs of community of users.

Database management system is a collection of programs that enables users to create and maintain database.

* Advantage of DBMS :-

- (a) Redundancy Control
- (b) Unauthorized access control
- (c) Multiple User Interface
- (d) Backup and Recovery
- (e) data sharing

* Database Terms :-

- (a) File - A file is an ordered arrangement of records in which each record is stored in unique identifiable location.
- (b) Records - A record or tuple is a couple set of related data.
- (c) Fields - A field is a property or a characteristic that hold some piece of information about an entity.

(d) Relations - In the relational data model, the data in a database is organized in relation.

(e) Attributes - An attribute is a property or characteristics that hold some information about an entity.

Attribute

Student Table → Entity

Roll No.	Name	Age	Marks
A001	Rahul	23	700
A002	Abhi	24	800

Labels and arrows in the diagram:
- 'Attribute' points to the column headers (Roll No., Name, Age, Marks).
- 'Tuple' points to the rows of data.
- 'Table' points to the entire table structure.
- 'Cardinality (No. of elements)' points to the number of rows (2).
- 'Record' points to a single row of data.

* Types of files :-

(a) Master File - Master file contains the permanent data of a data processing system and kept up to date by applying new data from transaction files.

(b) Transaction File - These files contain only that data necessary to keep the master file up to date.

(c) Reference or lookup file - These files contain data which may need to be looked up during the processing of the master file.

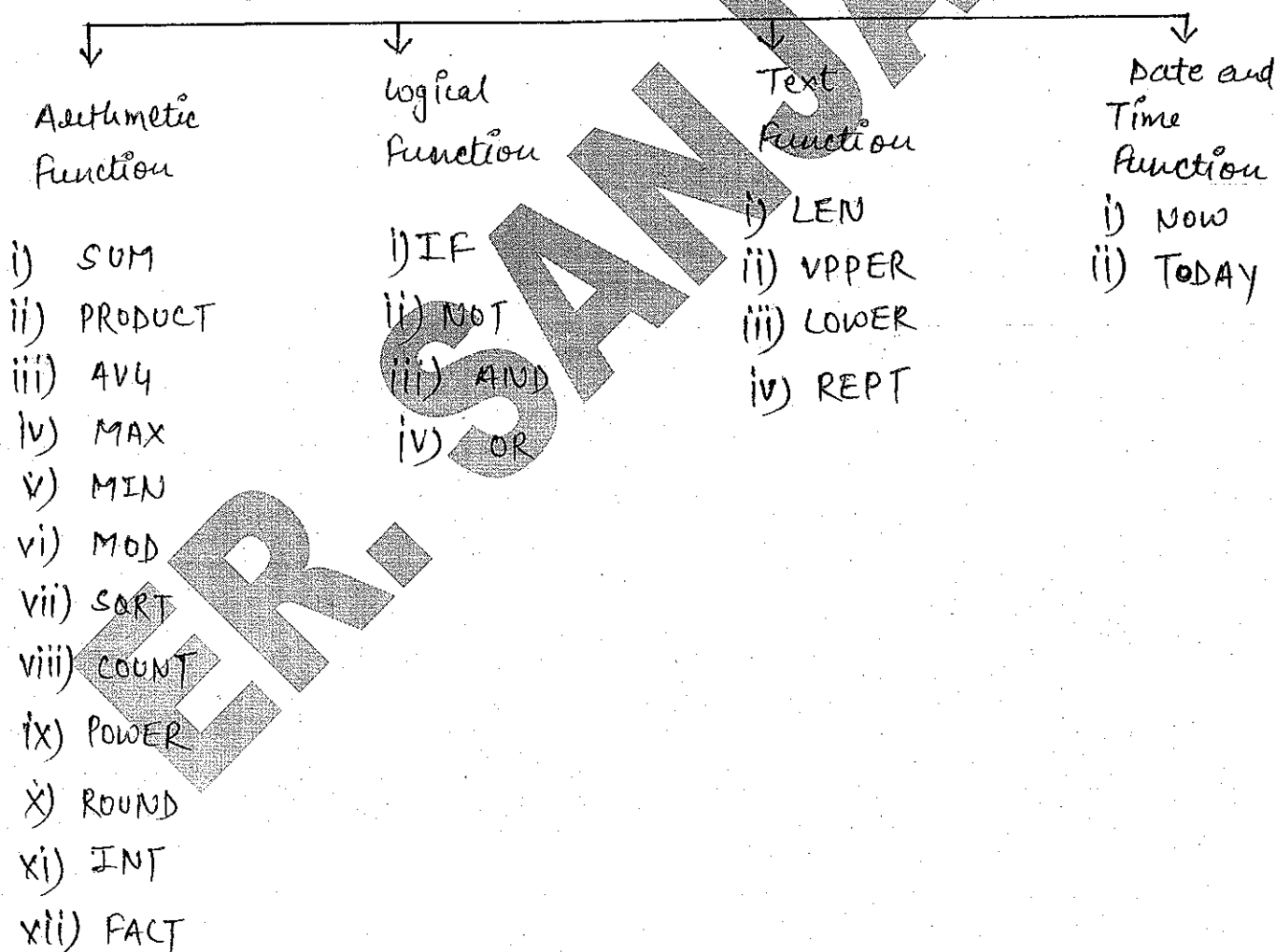
→ In M.S. excel function is used for calculation.

→ shift + F3 is used to insert a function in a cell.

→ when a function is used for more than two values is known as aggregate function.

Eg:- AVERAGE, Mean, Mode, Median.

* Types of Function *



NOTE:-

1. To summarize data available in a table PIVOT TABLE is used.
2. SORTING is used to arrange data in ascending and descending order.
3. To combine two cell is known as Merging.
4. cell Reference :
 - i) Absolute Reference :- \$A\$1
 - ii) Relative Reference :- A1
5. Chart is used to represent data available table in the form of Graph.
 - a) Pie chart
 - b) Bar chart
 - c) Tabular chart
 - d) Line chart

* RDBMS (Relational Database Management System) (51)

RDBMS may be a DBMS in which data is stored in the form of ~~tbl~~ tables and the relationship among the data is also stored in the form of ~~tbl~~ tables.

* Different Types of keys in RDBMS :-

(a) Primary key - It is a attribute of a table which can be used to be access the record.

Primary key should be unique and it should not be NULL.

(b) Foreign key - If a relation has no primary key then it use primary key of another related table known as foreign key.

(c) Candidate key - Attribute of a given table which has property to become a primary key is a called candidate key.

* Some database languages :-

SQL - (Structured Query Language)

(Around 153 commands)

- Insert, Update and delete

(a) DDL (Data Definition Language)

(Works on table structure)

Commands - CREATE, ALTER (ADD, DELETE), DROP

(b) DML (Data Manipulation Language)

(Works on Record of the table)

Commands - SELECT, INSERT, Update, delete

(c) DCL (Data Control Language)

(Works on as permission or rights)

REVOKE → (Remove database access)

GRANT → (Change permission of user)

1. The software tools that enable a user to interact with a computer or specific purposes are known as-
(1) Hardware (2) Networked software (3) Shareware
(4) Applications (5) None of these
2. A shares hardware, software, and data among authorized users.
(1) Network (2) Protocol (3) hyperlink (4) transmitter (5) none of these
3. Computer Programs are written in a high-level programming language; however, the human-readable version of a program is called -
(1) Cache (2) Instruction set (3) Source code
(4) Word size (5) None of these
4. In word processing, an efficient way to move the 3rd paragraph to place it after the 5th paragraph is -
(1) Copy and paste (2) Copy, Cut and paste
(3) Cut, copy and paste (4) Cut and paste (5) None of these
5. Which of the following is not a function of the control unit ?
(1) Read instructions (2) Execute instructions
(3) Interpret instructions (4) Direct operations
(5) None of these
6. Software for organizing storage and retrieval of information is a (n) -
(1) Operating System (2) Database (3) Database Program
(4) Data warehouse (5) None of these
7. A set of step-by-step procedures for accomplishing a task is known as a(n)-
(1) Algorithm (2) Hardware Program (3) Software Bug
(4) Firmware Program (5) None of these
8. Which of the following is not true about RAM?
(1) RAM is a temporary storage area
(2) RAM is the same as hard disk storage
(3) RAM is volatile
(4) Information stored in RAM is gone when you turn the computer off
(5) None of these
9. The main directory of a disk is called the directory.
(1) Root (2) Sub (3) Folder (4) Network (5) None of these
10. The physical arrangement of elements on a page is referred to as a document's
(1) Features (2) Format (3) Pagination (4) Grid (5) None of these
11. = SUM (B1 : B8) is an example of a
(1) Function (2) Formula (3) Cell address (4) Value (5) None of these
12. Which of the following storage media provides sequential access only ?
(1) Floppy disk (2) Magnetic disk
(3) Magnetic type (4) Optical disk (5) None of these
13. Compilers and translators are one form of -
(1) ROM (2) RAM (3) Hard Disk (4) Software (5) None of these
14. Data representation is based on the Number system, which uses two numbers to represent all data.
(1) Binary (2) Biometric (3) Bicentennial (4) Byte (5) None of these

15. The most common input devices include -
 (1) Monitor and keyboard (2) Monitor and mouse
 (3) Mouse and keyboard (4) Printer and mouse
 (5) None of these
16. WWW means -
 (1) World Wide Wonder (2) World Wide Wizard
 (3) World Wide Web (4) Wide World Web (5) None of these
17. Processing is used when a large mail-order company accumulates orders and processes them together in one large set
 (1) Batch (2) Online (3) Real-time (4) Group (5) None of these
18. What is the different between a CD-ROM and a CD-RW?
 (1) They are the same - just two different terms used by different manufacturers
 (2) A CD-ROM can be written to and a CD-RW cannot
 (3) A CD-RW can be written to, but a CD-ROM can only be read from
 (4) A CD-ROM holds more information than a CD-RW
 (5) None of these
19. Holding the mouse button down while moving an object or text is known as -
 (1) Moving (2) Dragging (3) Dropping (4) Highlighting (5) None of these
20. A Is a collection of data that is stored electronically as a series of records in a table.
 (1) Spreadsheet (2) Presentation (3) Database (4) Web page (5) None of these
21. The Primarily take(s) care of the behind-the-scenes details and manage(s) the hardware.
 (1) Operating System (2) Application Software
 (3) Peripheral devices (4) Hard disk (5) None of these
22. A is a professionally designed "empty" document that can be adapted to the user's needs.
 (1) File (2) Guide (3) Template
 (4) User guide file (5) None of these
23. A group of 8 bits is known as a -
 (1) Byte (2) Kilobyte (3) Binary digit (4) Megabit (5) None of these
24. The hardware device commonly referred to as the "brain" of the computer is the -
 (1) RAM chip (2) Data input (3) CPU
 (4) Secondary storage (5) None of these
25. What is the intersection of a column and a row on a worksheet called?
 (1) Column (2) Value (3) Address (4) Cell (5) None of these
26.are often delivered to a PC through an email attachment and are often designed to do harm.
 (1) Viruses (2) Spam (3) Portals
 (4) Email messages (5) None of these
27. What is the storage area for email message called?
 (1) A folder (2) A directory (3) A mailbox
 (4) The hard disk (5) None of these
28. A desktop computer is also known as a -
 (1) Palm Pilot (2) PC (3) Laptop (4) Mainframe (5) None of these
29. When a file contains instructions that can be carried out by the computer, it is often called a(n)file.
 (1) Data (2) Information (3) Executable (4) Application (5) None of these
30. Documents converted tocan be published to the Web.
 (1) a doc file (2) http (3) machine language

- (4) HTML (5) None of these
31. If a user needs information instantly available to the CPU, it should be stored -
 (1) On a CD (2) In secondary storage (3) In the CPU
 (4) In RAM (5) None of these
32. To what temporary area can you store text and other data, and later paste them to another location?
 (1) The clipboard (2) ROM (3) CD-ROM
 (4) The hard disk (5) None of these
33. In a spreadsheet, a is a number you will use in a calculation.
 (1) Label (2) Cell (3) Field (4) Value (5) None of these
34. Click check box of transition in a slide group of an animation tab if you want to move a slide automatically after stipulated time.
 (1) Transition timer (2) Automatically after
 (3) Transition after (4) Automatic timer (5) None of these
35. All of the following are included in removable media Except-
 (1) CD-ROMs (2) Diskette (3) VDs
 (4) Hard Disk Drive (5) None of these
36. If you do not want to select any option after opening a menu then click menu title again or press key..... to close the menu.
 (1) Shift (2) Tab (3) Escape (4) F1 (5) None of these
37. It is easier to change the name of file using process.
 (1) Transforming (2) Christening (3) Renaming
 (4) Retagging (5) None of these
38. view shows how the contents on printed page will appear with margin, header and footer.
 (1) Draft (2) Full Screen Reading (3) Outline
 (4) Page Layout (5) None of these
39. We can enter and edit the text efficiently using -
 (1) Spreadsheet (2) Typewriter (3) Word Processing Program
 (4) Desktop Publishing Program (5) None of these
40. may be included in other folder while making hierarchical structure folder.
 (1) Mini folder (2) Tiered folder (3) Sub-folder
 (4) Object (5) None of these
41. is the act of copying or downloading a program from a network and making multiple copies of it
 (1) Network piracy (2) Plagiarism (3) Software piracy
 (4) Site-license piracy (5) None of these
42. A directory within a directory is called
 (1) Mini directory (2) Junior directory (3) Part directory
 (4) Sub directory (5) None of these
43. Which is the definition of software package?
 (1) An add-on for your computer such as additional memory
 (2) A set of computer programs used for a certain function such as word processing
 (3) A protection you can buy for a computer
 (4) The box, manual and licence agreement that accompany commercial software
 (5) None of these

44. Onlyprogram(s) become(s) active even though we can open many programs at a time.
 (1) Four (2) Three (3) Two (4) One (5) None of these
45. When the margins on both sides are straight and equal, then there isin document
 (1) Full justification (2) Full alignment
 (3) Left justification (4) Right justification (5) None of these
46. All of the followings are included in typical computer programming language which are in use currently Except
 (1) C++ (2) Java (3) Visual Basic NET
 (4) Machine Language (5) None of these
47. When you make graph and picture in document, then your computer holds the data in
 (1) Restore file (2) Backup drive (3) Clipboard
 (4) Memory (5) None of these
48. How will words appear on the page ? We call it as
 (1) Text formatting (2) Character formatting
 (3) Point size (4) Type face (5) None of these
49.helps in capturing row data and entering into computer system.
 (1) CPU (2) Integrated circuit (3) Input device
 (4) Motherboard (5) None of these
50. Title bar, ribbon, status bar, views and document workspace are factors ofprogram of Words.
 (1) Windows (2) Browser (3) Explorer (4) Website (5) None of these
51. Which type of memory holds only the program and data that the CPU is presently processing?
 (1) CMOS (2) ROM (3) RAM (4) ASCII (5) None of these
52. A button that makes character either upper or lower case and numbers to symbols.
 (1) Monitor (2) Shift Key (3) Icon (4) Mouse (5) None of these
53. Pick the odd one -
 (1) Mouse (2) Scanner (3) Printer (4) Keyboard (5) None of these
54. Programs designed specifically to address general purpose applications special purpose applications are called -
 (1) Operating system (2) System software
 (3) Applications software (4) Management information system
 (5) None of these
55. A series of instructions that tells a computer what to do and how to do it is called a
 (1) Program (2) Command (3) User response
 (4) Processor (5) None of these
56. The communications device that allows the computer to access a network is called acard.
 (1) Modem (2) Video (3) Sound (4) Network (5) None of these
57. A screen list of options in a program that tells you what is in that program-
 (1) Screen (2) Icon (3) Menu (4) Backup (5) None of these
58.is data that has been organized or presented in a meaningful fashion.
 (1) A process (2) Storage (3) Software (4) Information (5) None of these
59. Acontains buttons and menus that provide quick access to commonly used commands.
 (1) Menu bar (2) Toolbar (3) Window (4) Find (5) None of these
60. Letters, numbers and symbols found on a keyboard are -
 (1) Icon (2) Screen (3) Keys (4) Menu (5) None of these

61. What menu is selected to print?
 (1) File (2) Tools (3) Social (4) Edit (5) None of these
62. Programs or a set of electronic instructions that tell a computer what to do
 (1) Menu (2) Monitor (3) Hardware (4) Software (5) None of these
63. A(n) Contains commands that can be selected.
 (1) Pointer (2) Menu (3) Icon (4) Button (5) None of these
64. Microcomputer hardware consists of there basic categories of physical equipment-
 (1) Keyboard, monitor, hard drive
 (2) System unit, input/output memory
 (3) System unit, input/output, secondary storage
 (4) System unit, primary storage, secondary storage(5) None of these
65. A piece of hardware that is used to enter information into the computer by using keys 3
 (1) Keyboard (2) Monitor (3) Hard disk (4) Icon (5) None of these
66. Example of non-numeric data is
 (1) Employee address (2) Examination score
 (3) Bank balance (4) All of these (5) None of these
67. Date and Time are available on the desktop at..... .
 (1) Keyboard (2) Recycle Bin (3) My Computer(4) Task bar (5) None of these
68. Periodically adding, changing and deleting file records is called file
 (1) Updating (2) Upgrading (3) Restructuring
 (4) Renewing (5) None of these
69. Capital letters on a keyboard are referred to as -
 (1) Caps lock key (2) Grownups (3) Big guys
 (4) Upper case letters (5) None of these
70. Devices that make up a computer system that you can see or touch-
 (1) Menu (2) Print (3) Software (4) Hardware (5) None of these
71. An output device that lets you see what the computer is doing -
 (1) A disk drive (2) Monitor-screen (3) Shift key
 (4) Printer (5) None of these
72. Bit in short for -
 (1) Binary system (2) Digital byte (3) Binary digit
 (4) Binary unit (5) None of these
73. A symbol on the screen that represents a disk, document or program that you can select -
 (1) Keys (2) Caps (3) Icon (4) Monitor (5) None of these
74. Ais an example of an input device.
 (1) Keyboard (2) Monitor (3) Mouse (4) Central processing unit(5) None of these
75. A compute cannot "boot" if it does not have the -
 (1) Compiler (2) Loader (3) Operating system
 (4) Assembler (5) None of these
76. A command that takes what has been typed into the computer and can be seen on the screen and sends it to the printer for output on paper
 (1) Print (2) Return (3) Jump (4) Attention (5) None of these
77. A CPU contains -
 (1) A card reader and printing device
 (2) An analytical engine and control unit

- (3) A control unit and an arithmetic logic unit (4) An arithmetic logic unit and a card reader
- (5) None of these
- 78.** Powerful key that lets you exit is program when pushed -
 (1) Arrow keys (2) Spacebar (3) Escape key (4) Return key (5) None of these
- 79.** The ability of an OS to run more than one application at a time is called -
 (1) Multitasking (2) Object-oriented programming
 (3) Multi user computing (4) Time-sharing (5) None of these
- 80.** Which of the following statements best describes the batch method of input?
 (1) Data is processed as soon as it is input
 (2) Data is input at the time it is collected
 (3) Data is collected in the form of source documents, placed into groups, and then input to the computer.
 (4) source documents are not used
 (5) None of these
- 81.** The term used to define all input and output devices in computer system is
 (1) Monitor (2) Software (3) Shared resources
 (4) Hardware (5) None of these
- 82.** Coded entries which are used to gain access to a computer system are called
 (1) Entry codes (2) Passwords (3) Security commands
 (4) Code words (5) None of these
- 83.** The part of a computer that coordinates all its function is called
 (1) ROM program (2) System board
 (3) Arithmetic logic unit (4) Control unit (5) None of these
- 84.** represents raw facts, whereas is data made meaningful.
 (1) Information, reporting (2) Data, information
 (3) Information, bits (4) Records, bytes (5) None of these
- 85.** What is the name for the process that is used to convert a series of instruction, or program, written in a high level language into instructions (or a program) that can be run on a computer.
 (1) Assembling (2) Compiling (3) Translating (4) Uploading (5) None of these
- 86.** The benefits of using computers is that
 (1) Computers are very fast and can store huge amounts of correct
 (2) Computers provide accurate output even when input is incorrect
 (3) Computer are designed to be inflexible
 (4) All of the above (5) None of these
- 87.** The function of C.P.U is
 (1) To provide external storage of text
 (2) To communicate with the operator
 (3) To read, interpret and process the information and instruction
 (4) To provide a hard copy (5) None of these
- 88.** What characteristic of read-only memory (ROM) makes it useful?
 (1) ROM information can be easily updated
 (2) Data in ROM is nonvolatile, that is, it remains there even without electrical power
 (3) ROM provides very large amounts of inexpensive data storage
 (4) ROM chips easily swapped between different brands of computer.
 (5) None of these

- 89.** is the process of carrying out commands.
 (1) Fetching (2) Storing (3) Decoding (4) Executing (5) None of these
- 90.** Which of the following peripheral devices displays information to a user?
 (1) Monitor (2) Keyboard (3) Secondary storage devices
 (4) Secondary storage media (5) None of these
- 91.** The "desktop" of a computer refers to
 (1) The visible screen (2) The area around the monitor
 (3) The top of the mouse pad (4) The inside of a folder
 (5) None of these
- 92.** What type of resource is most likely to be a shared common resources in computer network?
 (1) Keyboards (2) Speakers (3) Floppy disk devices
 (4) Printers (5) None of these
- 93.** To "maximize" a window means
 (1) Fill it to capacity (2) Expand it to fit the desktop
 (3) Put only like files inside (4) Drag it to the recycle bin (5) None of these
- 94.** The "home page" of a web site is
 (1) The largest page (2) The last page
 (3) The first page (4) The most colourful page (5) None of these
- 95.** Personal computer is
 (1) MC (2) SC (3) YC (4) PC (5) None of these
- 96.** To put information in a file on a magnetic disk, or in a computer's memory, so it can be used later-
 (1) Store (2) Shop (3) Shift (4) Centre (5) None of these
- 97.** Saving is the process of
 (1) Copying document from memory to a storage medium
 (2) Making changes to a document's existing content
 (3) Changing the appearance, or overall look, of a document
 (4) Developing a document by entering text using a keyboard
 (5) None of these
- 98.** Printed information, called, exists physically and is a more permanent form of output than that presented on a display device.
 (1) Soft copy (2) Carbon copy (3) Hard copy
 (4) Desk copy (5) None of these
- 99.** To find a saved document in the computer's memory and bring it up on the screen to view....
 (1) Reverse (2) Rerun (3) Retrieve (4) Return (5) None of these
- 100.** The internet is a system of
 (1) Software bundles (2) Web page (3) Website
 (4) Interconnected Networks (5) None of these
- 101.** A.....typically connects personal computers within a very limited geographical area, usually within a single building.
 (1) LAN (2) BAN (3) TAN (4) NAN (5) None of these
- 102.** Computers manipulate data in many ways, and this manipulation is called.....
 (1) Utilizing (2) Batching (3) Upgrading (4) Processing (5) None of these
- 103.** An e-mail address typically consists of a user ID followed by thesign and the name of the e-mail server that manages the user's electronic post office box.
 (1) @ (2) # (3) & (4) * (5) None of these

- 104.** Software applies, also called algorithms, to process data.
(1) Arithmetic (2) Procedures (3) Objects (4) Rules (5) None of these
- 105.** A file extension is separated from the main file name with a(n), but no spaces.
(1) Question mark (2) Exclamation mark
(3) Underscore (4) Period (5) None of these
- 106.** An ad hoc query is a
(1) Pre-planned question (2) Pre-scheduled question
(3) Spur-of-the-moment question
(4) Question that will not return any results (5) None of these
- 107.** A Webconsists of one or more Web pages located on a Web server.
(1) Hub (2) Site (3) Story (4) Template (5) None of these
- 108.** A computeris a set of program instructions that can attach itself to a file, reproduce itself, and spread to other files.
(1) Worm (2) Virus (3) Trojan horse
(4) Phishing scam (5) None of these
- 109.** The desktop contains small graphics called
(1) Windows (2) Logos (3) Icons (4) Pictures (5) None of these
- 110.** C, BASIC, COBOL, and Java are examples oflanguages.
(1) Low-level (2) Computer (3) System programming
(4) High-level (5) None of these
- 111.** A(n)camera is a peripheral device used to capture still images in a digital format that can be easily transferred into a computer and manipulated using graphics software.
(1) Digital (2) Analog (3) Classic (4) Film (5) None of these
- 112.**makes it possible for shoppers to make purchases using their computers.
(1) E-world (2) E-commerce (3) E-spend (4) E-business (5) None of these
- 113.** What is e-commerce?
(1) Buying and selling of international goods
(2) Buying and selling of products and services over the internet
(3) Buying and selling of products and services not found in stores
(4) Buying and selling of products having to do with computers
(5) Buying and selling of electronic goods
- 114.** Networks are monitored by security personnel and supervised bywho set(s) up accounts and passwords for authorized network users.
(1) IT managers (2) The government
(3) Network administrators (4) Password administrators (5) None of these
- 115.** Application software is designed to accomplish
(1) Real-world tasks (2) Computer - centric tasks
(3) Gaming tasks (4) Operating - system tasks
(5) None of these
- 116.** A telephone number, a birth date, and a customer name are all examples of
(1) A record (2) Data (3) A file (4) A database (5) None of these
- 117.** The human-readable version of a program is called
(1) Source code (2) Program code (3) Human code
(4) System code (5) None of these

- 118.** Acomputer (also referred to as a laptop) is a small, lightweight personal computer that incorporates the screen, the keyboard, storage, and processing components into a single portable unit
 (1) Notebook (2) Journal (3) Diary (4) Briefcase (5) None of these
- 119.**is the result produced by a computer.
 (1) Data (2) Memory (3) Output (4) Input (5) None of these
- 120.** Programs such as Internet Explorer that serve as navigable windows into the Web are called
 (1) Hypertext (2) Networks (3) Internet
 (4) Web browsers (5) None of these
- 121.** Ais a device that not only provides surge protection, but also furnishes your computer with battery backup power during a power outage.
 (1) Surge strip (2) USB (3) UPS (4) Battery strip (5) None of these
- 122.** When you save to, your data will remain intact even when the computer is turned off.
 (1) RAM (2) Motherboard
 (3) Secondary storage device (4) Primary storage device (5) None of these
- 123.** The motherboard is the
 (1) Circuit board that houses peripheral devices
 (2) Same as the CPU chip
 (3) The first chip that is accessed when the computer is turned on
 (4) Circuit board that contains a CPU and other chips (5) None of these
- 124.** A computer-intensive problem runs on a
 (1) Server (2) Mainframe (3) Supercomputer
 (4) Super PC (5) None of these
- 125.** A(n)converts and executes one statement at a time.
 (1) Compiler (2) Interpreter (3) Converter (4) Instructions (5) None of these
- 126.** The termdesignates equipment that might be added to a computer system to enhance its functionality.
 (1) Digital device (2) System add-on
 (3) Disk pack (4) Peripheral device (5) None of these
- 127.** Approximately how many bytes make one Megabyte?
 (1) One thousand (2) Ten thousand (3) One hundred
 (4) One million (5) None of these
- 128.** What is MP3?
 (1) A mouse (2) A printer (3) A sound format
 (4) A scanner (5) None of these
- 129.** All the deleted files go to
 (1) Recycle Bin (2) Task Bar (3) Tool Bar
 (4) My Computer (5) None of these
- 130.** In MICR, C stands for
 (1) Code (2) Colour (3) Computer (4) Character (5) None of these
- 131.** Fax machines and imaging systems are examples of
 (1) Bar-code readers (2) Imaging systems
 (3) Scanning devices (4) Pen-based systems (5) None of these
- 132.** When writing a document, you can use thefeature to find an appropriate word or an alternative word if you find yourself stuck for the right word.
 (1) Dictionary (2) Word finder (3) Encyclopedia
 (4) Thesaurus (5) None of these

- 133.** A disk's content that is recorded at the time of manufacture and that cannot be changed or erased by the user is
 (1) Read-only (2) Memory-only (3) Run-only
 (4) Write-only (5) None of these
- 134.** In an information system, alphanumeric data normally takes the form of
 (1) Sentences and paragraphs (2) Numbers and alphabetical characters
 (3) Graphic shapes and figures (4) Human voice and other sounds
 (5) None of these
- 135.** When installing, the user must copy and usually decompress program files from a CD-ROM or other medium to the hard disk.
 (1) Programming software (2) System hardware
 (3) Applications hardware (4) Applications software
 (5) None of these
- 136.** A collection of interrelated files in a computer is a
 (1) File manager (2) Field (3) Record
 (4) Database (5) None of these
- 137.** Acomputer is a large and expensive computer capable of simultaneously processing data for hundreds or thousands of users
 (1) Server (2) Mainframe (3) Desktop (4) Tablet (5) None of these
- 138.** The trend in computer systems is toward the use of graphical user interfaces (GUIs). In these operating systems, a track ball is described as
 (1) A roller ball which moves the cursor
 (2) A pen-shaped device which allows data to be entered through the CRT screen
 (3) A figures which resembles a familiar office device
 (4) An outdated input device (5) None of these
- 139.** Various applications and documents are represented on the Windows desktop by
 (1) Symbols (2) Labels (3) Graphs (4) Icons (5) None of these
- 140.** What is usually used for displaying information at public places?
 (1) Monitors (2) Overhead Projections
 (3) Monitors and Overhead Projections (4) Touch Screen Kiosks
 (5) None of these
- 141.** The real business and competitive value of information technology lies in
 (1) The software applications that are used by many companies
 (2) The capabilities of the software and value of the information a business acquires and uses
 (3) The infrastructure of hardware, networks, and other IT facilities that are commonly used by many companies
 (4) The capabilities of the hardware and the speed at which it processes information
 (5) None of these
- 142.** Companies use which of the following vendors to provide access to software and services rather than purchasing the applications and maintaining the applications themselves?
 (1) Open source vendors (2) Alliances (3) Application service providers
 (4) All of the above (5) None of these
- 143.** Which one of the following would be considered as a way that a computer virus can enter a computer system?
 (1) Opening an application previously installed on the computer
 (2) Borrowed copies of software

- (3) Viewing a website without causing any additional transactions
 (4) Running antivirus programs (5) None of these
- 144.** Collecting personal information and effectively posing as another individual is known as the crime of.....
 (1) Spooling (2) Identity theft (3) Spoofing
 (4) Hacking (5) None of these
- 145.** The first step in the transaction processing cycle is
 (1) Database operations (2) Audit (3) Data entry
 (4) User inquiry (5) None of these
- 146.** In the information systems concept, the output function involves
 (1) Capturing and assembling elements that enter the system to be processed
 (2) Transformation processes that convert input into output
 (3) Transferring elements that have been produced by a transformation process to their ultimate destination
 (4) Monitoring and evaluating feedback to determine whether a system is moving toward the achievement of its goal
 (5) None of these
- 147.** To change selected text to all capital letters, click the change case button, then click
 (1) Uppercase (2) Upper all (3) Capslock (4) Lock upper (5) Large size
- 148.** A person who uses his or her expertise to gain access to other people's computers to get information illegally or to damage is a
 (1) Hacker (2) Analyst (3) Instant messenger
 (4) Programmer (5) Spammer
- 149.** A device that connects to a network without the use of cables is said to be
 (1) Distributed (2) Free (3) Centralized (4) Open source (5) None of these
- 150.** Reusable optical storage will typically have the acronym
 (1) CD (2) DVD (3) ROM (4) RW (5) ROS
- 151.** The most common type of storage device are
 (1) Persistent (2) Optical (3) Magnetic (4) Flash (5) Steel
- 152.** Codes consisting of lines of varying of width or lengths that are computer-readable are known as
 (1) An ASCII code (2) A magnetic tape (3) A bar code
 (4) An OCR scanner (5) None of these
- 153.** Part number, part description, and number of parts ordered are examples of
 (1) Control (2) Output (3) Processing (4) Feedback (5) Input
- 154.** To access properties of an object, the mouse technique to use is
 (1) Dragging (2) Dropping (3) Right-clicking
 (4) Shift-clicking (5) None of these
- 155.** Computers use the Number system to store data and perform calculations.
 (1) Binary (2) Octal (3) Decimal
 (4) Hexadecimal (5) None of these
- 156.** are attempts by individuals to obtain confidential information from you by falsifying their identity.
 (1) Phishing trips (2) Computer virus
 (3) Spyware scams (4) Viruses (5) Phishing scams

- 157.** Why is it unethical to share copyrighted files with your friends?
- (1) It is not unethical, because it is legal.
 - (2) It is unethical because the files are being given for free.
 - (3) Sharing copyrighted files without permissions breaks copyright laws.
 - (4) It is not unethical because the files are being given for free.
 - (5) It is not unethical- anyone can access a computer
- 158.** Which of the following can be used to select the entire document?
- (1) CTRL+A (2) ALT+F5 (3) SHIFT+A (4) CTRL+K (5) CTRL+H
- 159.** To instruct Word to fit the width of a column to the contents of a table automatically, click the Button and then point to Auto fit Contents.
- (1) Fit to form (2) Format (3) Autosize (4) Contents (5) Autofit
- 160.** What is the permanent memory built into your computer called?
- (1) RAM (2) Floppy (3) CPU (4) CD-ROM (5) ROM
- 161.** The default view in Excel is view.
- (1) Work (2) Auto (3) Normal (4) Roman (5) None of these
- 162.** Grouping and processing all of a firm's transactions at one time is called
- (1) A database management system (2) Batch processing
 - (3) A real-time system (4) An on-line system
 - (5) None of these
- 163.** Help menu is available at which button?
- (1) End (2) Start (3) Turnoff (4) Restart (5) Reboot
- 164.** You can keep your personal files/folders in
- (1) My folder (2) My documents (3) My files (4) My text
 - (5) None of these
- 165.** A central computer that holds collections of data and programs for many PCs, workstations, and other computers is a(n)
- (1) Supercomputer (2) Minicomputer
 - (3) Laptop (4) Server (5) None of these
- 166.** The Folder retains copies of message that you have started but are not yet ready to send.
- (1) Drafts (2) Outbox (3) Address book
 - (4) Send Items (5) Inbox
- 167.** You can a search by providing more information the search engine can use to select a smaller, more useful set of results.
- (1) Refine (2) Expand (3) Load (4) Query (5) Slowdown
- 168.** The contents of are lost when the computer turns off.
- (1) Storage (2) Input (3) Output (4) Memory (5) None of these
- 169.** The enables you to simultaneously keep multiple Web pages open in one browser window.
- (1) Tab box (2) Pop-up helper (3) Tab row
 - (4) Address bar (5) Esc bar

- 170.** A DVD is an example of a(n)
(1) Hard disk (2) Optical disk (3) Output device
(4) Solid-state storage device (5) None of these
- 171.** The basic unit of a worksheet into which you enter data in Excel is called a
(1) Tab (2) Cell (3) Box (4) Range (5) None of these
- 172.** Is the process of dividing the disk into tracks and sectors.
(1) Tracking (2) Formatting (3) Crashing (4) Allotting (5) None of these
- 173.** Which ports connect special types of music instrument to sound cards?
(1) BUS (2) CPU (3) USB (4) MIDI (5) MINI
- 174.** The process of transferring files from a computer on the Internet to your computer is called
(1) Downloading (2) Uploading (3) FTP
(4) JPEG (5) Downsizing
- 175.** In Excel allows users to bring together copies of work books that other users have worked on independently.
(1) Copying (2) Merging (3) Pasting (4) Compiling (5) None of these
- 176.** If you want to connect to your own computer through the Internet from another location, you can use
(1) E-mail (2) FTP (3) Instant message
(4) telnet (5) None of these
- 177.** To reload a Web page, press the button.
(1) Redo (2) Reload (3) Restore (4) Ctrl (5) Refresh
- 178.** Mobile Commerce is best described as
(1) The use of kiosks in marketing
(2) Transporting products
(3) Buying and selling goods/services through wireless handheld devices
(4) Using notebook PCs in marketing
(5) None of the above
- 179.** Video processors consist of and, which store and process image.
(1) CPU and VGA (2) CPU and memory
(3) VGA and memory (4) VGI and DVI (5) None of these
- 180.** are words that a programming language has set aside for its own use.
(1) Control words (2) Control structures
(3) Reserved words (4) Reserved keys (5) None of these
- 181.** What is the process of copying software programs from secondary storage media to the hard disk called?
(1) Configuration (2) Download (3) Storage
(4) Upload (5) Installation
- 182.** This first step in the transaction processing cycle captures business data through various modes such as optical scanning or at an electronic commerce website.
(1) Document and report generation (2) Database maintenance
(3) Transaction processing start-up (4) Data Entry
(5) None of these

- 183.** When the pointer is positioned on a, it is shaped like a hand.
 (1) Grammar error (2) Formatting error (3) Screen Tip
 (4) Spelling error (5) Hyperlink
- 184.** The computer abbreviation KB usually means
 (1) Key Block (2) Kernel Boot (3) Key Byte (4) Kit Bit (5) Kilo Byte
- 185.** Which of the following are advantages of CD-ROM as a storage media ?
 (1) CD-ROM is an inexpensive way to store large amount of data and information.
 (2) CD-ROM disks retrieve data and information more quickly than magnetic disks do.
 (3) CD-ROMs make less errors than magnetic media.
 (4) All the above (5) None of these
- 186.** A(n)..... is a special visual and audio effect applied in Powerpoint to text or content.
 (1) Animation (2) Flash (3) Wipe (4) Dissolve (5) None of these
- 187.** Which of the following is a storage device that uses rigid, permanently installed magnetic disks to store data/information?
 (1) Floppy diskette (2) Hard Disk (3) Permanent disk
 (4) optical disk (5) None of these
- 188.** The piece of hardware that converts your computer's digital signal to an analog signal that can travel over telephone lines is called a
 (1) Red wire (2) Blue cord (3) Tower (4) Modem (5) None of these
- 189.** Personal computers can be connected together to form a
 (1) Server (2) Supercomputer (3) Network
 (4) Enterprise (5) None of these
- 190.** A is the term used when a search engine returns a Web page that matches the search criteria.
 (1) Blog (2) Hit (3) Link (4) View (5) Success
- 191.** The is the term used to describe the window that is currently being
 (1) Web window (2) Display area
 (3) WordPad window (4) Active window (5) Monitor
- 192.** CPU is an abbreviation for
 (1) Central programming unit (2) Central processing unit
 (3) Computer processing unit (4) Computer protocol unit
 (5) Central protocol unit
- 193.** A microprocessor is the brain of the computer and is also called an
 (1) Microchip (2) Macrochip (3) Microprocessor
 (4) Calculator (5) Software
- 194.** Storage and memory differ with respect to which of the following characteristics?
 (1) Price (2) Reliability (3) Speed (4) All of these (5) None of these
- 195.** What are the two examples of freeware?
 (1) WinZip and Linux
 (2) Shareware and file sharing
 (3) Microsoft Word and the Google toolbar
 (4) Instant messaging and the Google toolbar
 (5) Microsoft PowerPoint and Microsoft Excel

- 196.** Even if a disk fails, the computer application running and using it can continue processing. This application is said to have been designed with the future called
- (1) 100 percent up-time (2) Fault to clearance
(3) High reliability (4) All of these (5) None of these
- 197.** What are the four thing required to connect to the internet?
- (1) Telephone line, Modem, Computer and an ISP
(2) Modem, computer, PDA and ISP
(3) Telephone line, PDA, Modemand Computer
(4) Computer, ISP, Modem and communication software
(5) Monitor, Keyboard, Mouse and Modem
- 198.** Which of the following function is not performed by servers?
- (1) Email processing (2) Database sharing
(3) Processing websites (4) Storage (5) Word processing
- 199.** Which media has the ability to have data /information stored (written)on them by users more then once?
- (1) CD-R disks (2) CD-RW disks (3) Zip disks
(4) Opti disks (5) Both CD-RW disks and zip disks
- 200.** The process of transferring files from a computer on the internet to your computer is called
- (1) Downloading (2) Uploading (3) FTP
(4) JPEG (5) Downsizing
- 201.** Thecontrols a client's computer resources.
- (1) Application program (2) Instruction set
(3) Operating system (4) Server application (5) Compiler
- 202.** Which of the following could be digital input devices for computer?
- (1) Digital camcorder (2) Microphone (3) Scanner
(4) All of the above (5) None of the above
- 203.** You can use thebar to type a URL and display a web page , or type a keyword to display a list of related web pages.
- (1) Menu (2) Title (3) Search (4) Web (5) Address
- 204.** Storage media such as CD read and write information using
- (1) A laser beam of red light (2) Magnetic dots
(3) Magnetic strips (4) All of these (5) None of these
- 205.** Vendor-created programme modification are called
- (1) Patches (2) Antivirus (3) Holes (4) Fixes (5) Overlaps
- 206.** Cache and main memory will lose their contents when the power is off. They are
- (1) Dynamic (2) Static (3) Volatile (4) Non- volatile (5) Faulty
- 207.** The collection of links throughout the internet creates an interconnected network called the
- (1) WWW (2) Web (3) World wide web
(4) All of the above (5) World area web
- 208.** Every computer has an.....; many also have.....
- (1) Operating system; a client system (2) Operating system; instruction sets
(3) Application programs ;an operating system
(4) Application programs ;a client system
(5) Operating system ; application programs

- 209.** Main memory works in conjunction with.....
 (1) Special function cards (2) RAM (3) CPU (4) Intel
 (5) All of these
- 210.** A sales clerk at a checkout counter scanning a tag on an item rather than keying it into the system, is using.....
 (1) Input automation (2) Item data automation
 (3) Scanning automation (4) Source data automaton
 (5) None of these
- 211.** A(n) Is composed of several computers connected together to share resources and data.
 (1) Internet (2) Network (3) Backbone (4) Hyperlink (5) Protocol
- 212.** Microsoft office is an example of a
 (1) Closed-source software (2) Open-source software
 (3) Horizontal -market software (4) Vertical-market software (5) Compiler
- 213.** A popular way to learn about computers without ever going to a classroom is called.....
 (1) I-learning (2) Isolated learning (3) E-learning
 (4) Close learning (5) Distance learning
- 214.** Which of the following is an example of storage devices?
 (1) Magnetic disk (2) Tapes (3) DVDs (4) All of these
 (5) None of these
- 215.** Which of the following is an example of an optical disk?
 (1) Digital versatile disks (2) Magnetic disks
 (3) Memory disks (4) Data bus disks (5) None of these
- 216.** The main job of a CPU is to.....
 (1) Carry out program instruction.
 (2) Store data/information for future use
 (3) Process data and information
 (4) Both (1) and (3) (5) None of these
- 217.** An example of a processing device would be.....
 (1) A magnetic ink character (2) A tablet pc (3) Special function cards
 (4) Scanners (5) Keyboards
- 218.** Which of the following is not a type of computer software which can be bought?
 (1) Off-the-shelf (2) Tailor -made (3) Custom-developed
 (4) Off-the-shelf with alteration. (5) All of these can be purchased.
- 219.** You can useto copy selected text, and.....to paste it in a document
 (1) CTRL+C, CTRL+V (2) CTRL+C, CTRL+P
 (3) CTRL+S, CTRL+S (4) CTRL+C, CTRL+P
 (5) CTRL+D, CTRL+A
- 220.** The main memory of a computer can also be called
 (1) Primary storage (2) Internal memory
 (3) Primary memory (4) All of these (5) None of these
- 221.** Computer software can be defined as
 (1) The computer and its associated equipment
 (2) The instructions that tell the computer what to do
 (3) Computer components that act to accomplish a goal
 (4) An interface between the computer and the network.

- (5) The interaction between the computer and its database.
- 222.** When speaking of computer input and output, input refers to
- (1) Any data processing that occurs from new data input into computer
 - (2) Retrieval of data or information that has been entered into the computer.
 - (3) Data or information that has been entered into the computer
 - (4) The transmission of data that has been entered into the computer
 - (5) Both(3) and(4)
- 223.** A is a set of rules.
- (1) Resource locator
 - (2) Domain
 - (3) Hypertext
 - (4) URL
 - (5) Protocol
- 224.** The connection between your computer at home and your local ISP is called
- (1) The last mile
 - (2) The home stretch
 - (3) The home page
 - (4) The backbone
 - (5) The vital mile
- 225.** All of the logic and mathematical calculations done by the computer happen in/on the.....
- (1) System board
 - (2) Central control unit
 - (3) Central processing unit
 - (4) Mother board
 - (5) Memory
- 226.** There are several primary categories of procedures. Which of the following is not a primary category of procedures?
- (1) Testing
 - (2) Backup and recovery
 - (3) Firewall development
 - (4) Design
 - (5) None of these
- 227.** The operating system called UNIX is typically used for
- (1) Desktop computers
 - (2) Laptop computers
 - (3) Super computers
 - (4) Web servers
 - (5) All of these
- 228.** Thefile format is method of encoding pictures on a computer.
- (1) HTML
 - (2) JPEG
 - (3) FTP
 - (4) URL
 - (5) DOC
- 229.** Press to move the insertion point to the Address box, or to highlight the URL in the Address box.
- (1) ALT + D
 - (2) ALT +A
 - (3) SHIFT + TAB
 - (4) TAB + CTRL
 - (5) CTRL + S
- 230.** Computer systems are comprised of
- (1) Hardware, Programs, information, people and networks
 - (2) Hardware, software, procedures, networks, and people
 - (3) Hardware, programs, information, people and procedures
 - (4) Hardware, Programs, Processors, Procedures, networks and people
 - (5) Hardware, Programs, processors, procedures and people
- 231.** The operation of combining two cells into a single cell in Excel is referred to as
- (1) Join Cells
 - (2) Merge Cells
 - (3) Merge Table
 - (4) Join Table
 - (5) None of these
- 232.** Which of the following can be used to store a large number of files in a small amount of storage space?
- (1) file adjustment
 - (2) file copying
 - (3) file reading
 - (4) file compatibility
 - (5) file compression
- 233.** In a computer most processing takes place in
- (1) Memory
 - (2) RAM
 - (3) Motherborad
 - (4) CPU
 - (5) None of these

234. Data is organized in a work sheet as
- (1) Charts and diagrams (2) Rows and Columns
(3) Tables and Boxes (4) Graphs (5) None of these
235. Which of the following is an example of a binary number?
- (1) 6AH1 (2) 100101 (3) 005 (4) ABCD (5) 23456
236. Spell Check will find errors in which of the following?
- (1) Today is a rainy day (2) Today is a rainy a day (3) is a rainy
(4) Rainy today a day (5) None of these
237. Which of the following is not a storage medium?
- (1) Hard Disk (2) Flash drive (3) DVD (4) CD (5) Keyboard
238. In Excel, when the contents and attributes of a cell or range of cells have to be erased using the menu, the user must.....
- (1) Select the cells, choose Edit and select Clear, then All
(2) Select the cells, and click delete on the keyboard
(3) Select the cells, choose Tools, and select Clear, then Formats
(4) Select the cells, choose Tools, and select Formula Audit, then Delete
(5) None of these
239. If an Excel Worksheet is to be linked for use in a Power Point presentation, the following should be clicked
- (1) Edit, Paste Special (2) Edit, Paste (3) Edit, Copy
(4) File, Copy (5) None of these
240. Ram stands for
- (1) Random Access Memory (2) Ready Application Module
(3) Read Access Memory (4) Remote Access Machine (5) None of these
241. Which of the following is hardware and not software?
- (1) Excel (2) Printer driver
(3) Operating System (4) Power Point (5) Control Unit
242. In Word, which menu would the user select to print a document?
- (1) Tools (2) File (3) View (4) Window (5) None of these
243. Which of the following is **not true** about computer files?
- (1) They are collections of data saved to storage medium.
(2) Every file has a file name.
(3) A file extension is established by the user to indicate the date it was created
(4) Usually files contain data. (5) None of these
244. The common name for a modulator-demodulator is
- (1) Modem (2) Joiner (3) Networker (4) Connector (5) Demod
245. What do you see when you click the right mouse button?
- (1) The same effect as the left click
(2) A special menu (3) No effect
(4) A mouse cannot be right clicked (5) Computer goes to sleep mode
246. In order to choose the font for a sentence in a WORD document.....
- (1) Select Font in the Format menu (2) Select Font in the Edit menu
(3) Select Font in the Tools menu (4) Select Font in the Insert Menu (5) None of these
247. The ALU performs operations.
- (1) Logarithm-based (2) ASCII (3) Algorithm-based
(4) Arithmetic (5) None of these

- 248.** Excel is a program that is used to prepare a
- (1) Database (2) Text document (3) Spreadsheet
(4) Slide Presentation (5) None of these
- 249.** consists of volatile chips that temporarily store data or instructions.
- (1) CPU (2) ROM (3) RMA (4) RAM (5) None of these
- 250.** How many kilobytes make a megabyte?
- (1) 128 (2) 1024 (3) 256 (4) 512 (5) 64
- 251.** In order to delete a sentence from a document you would use
- (1) Highlight and Copy (2) Cut and Paste
(3) Copy and Paste (4) Highlight and Delete
(5) Select and Paste
- 252.** Editing a document that has been created means
- (1) Saving it (2) Printing it (3) Scanning it (4) Correcting it (5) None of these
- 253.** In a computer, how many bits does a nibble signify?
- (1) 4 (2) 8 (3) 16 (4) 32 (5) 64
- 254.** Which of the following is **not true** about a compiler?
- (1) Translates instruction of a high level language into machine language
(2) Translates entire source program into machine language program
(3) It is involved in program's execution
(4) Is a translating program (5) Is useful to run programs
- 255.** Keyboards, scanners, and microphones are examples of
- (1) Software Programs (2) Input devices
(3) Output devices (4) Utilities (5) None of these
- 256.** When machine instructions are being executed by a computer, the instruction phase followed by the execution phase is referred to as
- (1) Program Cycle (2) Machine instructions
(3) Execution Cycle (4) Task Cycle (5) Machine Cycle
- 257.** In Windows ME. What does ME stand for ?
- (1) Millennium (2) Micro-Expert
(3) Macro-Expert (4) Multi-Expert (5) My-Expert
- 258.** Which of the following refers to the fastest, biggest and most, expensive computers?
- (1) Notebooks (2) Personal Computers (3) Laptops
(4) Supercomputers (5) PDAs
- 259.** Which is not a basic function of a computer?
- (1) Accept and process data (2) Accept input (3) Process data
(4) Store data (5) Scan text
- 260.** Which of the following is not a term pertaining to Email?
- (1) Power Point (2) Inbox (3) Sender (4) Receiver (5) None of these
- 261.** Peripheral devices such as printers and monitors are considered to be
- (1) Data (2) Software (3) Hardware (4) Information (5) None of these
- 262.** Which of the following is required to create an HTML document?
- (1) Browser (2) Internet (3) Text editor
(4) Search engine (5) None of these
- 263.** Which language is directly understood by the computer without translation program?
- (1) BASIC language (2) Assembly language
(3) High level language (4) C language (5) Machine language

- 264.** To insert a page break in WORD document, the following options are used
- (1) Insert and Copy (2) Insert and Enter
(3) Insert and Delete (4) Insert and Page Layout
(5) Insert and Break
- 265.** Which of the following identifies a cell in Excel?
- (1) Formula (2) Name (3) Label (4) Address (5) None of these
- 266.** This is the part of the computer system that one cannot touch.
- (1) Hardware (2) Printer (3) Mouse (4) Scanner (5) Software
- 267.** A computer's ROM is
- (1) ALU (2) Computer Software
(3) Operating system (4) Computer Hardware (5) CPU
- 268.** While selecting multiple work sheets in Excel, the following key must also be used when clicking the sheet tab.....
- (1) Shift (2) Alt (3) Ctrl (4) Insert (5) Esc
- 269.** Which of the following is part of the System Unit ?
- (1) Monitor (2) CPU (3) CD-ROM (4) Floppy Disk (5) Printer
- 270.** Restarting a computer that is already on is referred to as
- (1) Lagging off (2) Cold booting (3) Shut down
(4) Warm Booting (5) Shutting off
- 271.** A word processor would be used best to
- (1) Paint a picture (2) Draw a diagram
(3) Type a story (4) Work out income and expenses
(5) None of these
- 272.** The file that is linked with an e-mail and sent to the receiver of the e-mail is referred to as
- (1) Annexure (2) Appendix (3) Add-on (4) Attachment (5) Article
- 273.** A..... is an example of an input device.
- (1) Printer (2) Monitor (3) Scanner
(4) Central Processing Unit (5) None of these
- 274.** A hard copy of a document is
- (1) Printed on the printer (2) Stored on a floppy
(3) Stored on a CD (4) Stored in the hard disk (5) Scanned
- 275.** The term "host" with respect to the internet, means.....
- (1) A computer that is a stand alone computer
(2) A computer that is connected to the internet
(3) A computer reserved for use by the host
(4) A large collection of computers (5) Hyperlink
- 276.** The translator program used in assembly language is called.....
- (1) Compiler (2) Assembler (3) Interpreter
(4) Translator (5) Operating System
- 277.** A set of instructions telling the computer what to do is called
- (1) Mentor (2) Instructor (3) Compiler (4) Program (5) None of these
- 278.** Which of the following is not true about computer files?
- (1) They are a collection of data saved in a storage medium.
(2) Every file has a filename.

- (3) A file extension is established by the user to indicate the computer on which it was created.
 (4) All files contain data (5) None of these
- 279.** Which of the following is not an example of a hardware?
 (1) Word (2) Printer (3) Monitor (4) Mouse (5) Scanner
- 280.** Which of the following is a secondary memory device?
 (1) Keyboard (2) Disk (3) ALU (4) Mouse (5) Printer
- 281.** The result of a formula in a cell is called.
 (1) Label (2) Value (3) Range
 (4) Displayed Value (5) None of these
- 282.** Which of the following is not a storage medium?
 (1) Hard disk (2) Flash drive (3) DVD (4) CD (5) Monitor
- 283.** Choose the odd one out
 (1) Microcomputer (2) Minicomputer
 (3) Supercomputer (4) Notebook computer
 (5) Digital computer
- 284.** The ALU performs operations.
 (1) Logic (2) ASCII (3) Algorithm-based
 (4) Logarithm-based (5) Final
- 285.** is the part of the computer that does arithmetical calculations.
 (1) OS (2) ALU (3) CPU (4) Memory (5) Printer
- 286.** In a sequence of events that take place in an instruction cycle, the first cycle is called
 (1) Store cycle (2) Execute cycle (3) Fetch cycle
 (4) Decode cycle (5) Code cycle
- 287.** Peripheral devices such as printers and plotters are considered to be
 (1) Hardware (2) Software (3) Data (4) Information (5) None of these
- 288.** Which of the following Excel charts represents only one value for each variable?
 (1) Function (2) Line (3) Pie (4) Bar (5) None of these
- 289.** To see the document before the printout is taken, use
 (1) Insert Table (2) Paste (3) Format Painter
 (4) Cut (5) Print Preview
- 290.** ALU works on the instructions and data held in the
 (1) Notebook (2) Registers (3) Copy Pad (4) I/O devices (5) None of these
- 291.** To move data from one part of the document to another, which of the following is used?
 (1) Cut and Paste (2) Copy and Paste
 (3) Cut and Delete (4) Copy and Undo
 (5) Cut and Insert
- 292.** Which of the following is the another name for a pre-programmed formula in Excel?
 (1) Range (2) Graph (3) Function (4) Cell (5) None of these
- 293.** To save a document for the first time, option is used.
 (1) Save as (2) Save first (3) Save on (4) Copy (5) paste
- 294.** What is a device that can change images into codes for the computer?
 (1) Mouse (2) Printer (3) Joystick (4) Keyboard (5) Scanner
- 295.** Which of the following are the two basic types of graphics used in Word 2000?
 (1) Autoshapes nad Clipart (2) Header and Footer
 (3) Drawing Objects and Pictures (4) Spelling and Grammar
 (5) Word Count

- 296.** The user can use commands to search for and correct words in a document.
 (1) Print and Print Preview (2) Header and Footer
 (3) Find and Replace (4) Spelling and Grammar
 (5) Copy and Paste
- 297.** What is the advantage of using basic HTML to create a document?
 (1) HTML is very easy to use.
 (2) The document can be displayed by all word processors.
 (3) The document can be displayed by all programs.
 (4) The document can be displayed by all browsers. (5) None of these
- 298.** Which of the following functions is not performed by the CPU?
 (1) Graphical display of data (2) Arithmetic calculations
 (3) Managing memory (4) Managing input and output (5) None of these
- 299.** Which of the following is the feature that keeps track of the right margin?
 (1) Find and Replace (2) Wordwrap (3) Right Justified
 (4) Left Justified (5) Ragged right
- 300.** Keyboard shortcuts are used to move the
 (1) I-beam (2) Insertion point (3) Scrollbar
 (4) Mouse (5) None of these
- 301.** To specify margins in Word, the user has to select Page Setup option from the menu.
 (1) Edit (2) Table (3) Autocorrect (4) File (5) Format
- 302.** What is the package called which helps create, manipulate and analyse data arranged in rows and columns?
 (1) Application package (2) Word processing package
 (3) Outlining package (4) Outline processors
 (5) Spreadsheet package
- 303.** What does an electronic spreadsheet consist of?
 (1) Rows (2) Columns (3) Cells
 (4) All the above (5) None of these
- 304.** ROM is an example of which of the following?
 (1) Volatile memory (2) Cache memory
 (3) Non-volatile memory (4) Virtual memory (5) None of these
- 305.** Which of the following options is used to display information such as title, page number of the document?
 (1) Insert Table (2) Autocorrect (3) Thesaurus
 (4) Spelling and Grammar (5) Header and Footer
- 306.** Which part of the computer can display the user's work?
 (1) Mouse (2) Keyboard (3) Disk Drive (4) Monitor (5) None of these
- 307.** When a computer prints a report, this output is called
 (1) Program (2) Soft Copy (3) Hard Copy (4) Execution (5) None of these
- 308.** The processor is a chip plugged onto the motherboard in a computer system.
 (1) LSI (2) VLSI (3) ULSI (4) XLSI (5) WLSI
- 309.** A register that keeps track of the next instruction to be executed is called a/an
 (1) Data Register (2) Instruction Register
 (3) Action Register (4) Program Counter (5) Accumulator
- 310.** The microprocessor of a computer
 (1) Does not understand machine language.

- (2) Understands machine language and high-level languages.
 - (3) Understands only machine language.
 - (4) Understands only high-level languages.
 - (5) Understands only assembly language.
- 311.** A set of choices on the screen is called a(n)
- (1) Menu
 - (2) Reverse video
 - (3) Actin plan
 - (4) Editor
 - (5) Template
- 312.** What is the full form of PROM?
- (1) Programmable Read only Memory
 - (2) Prograssive Read Only Memory
 - (3) Periodic Read Only Memory
 - (4) Perfect Read only Memory
 - (5) Program Read-Only Memory
- 313.** Which of the following will be used if the sender of an e-mail wants to bold, italicise etc the text message?
- (1) Reach Signature
 - (2) Reach Text
 - (3) Reach Format
 - (4) Plain Format
 - (5) Plain Text
- 314.** Which of the following terms is not related to Internet?
- (1) Link
 - (2) Function key
 - (3) Browser
 - (4) Search engine
 - (5) Hyperlink
- 315.** What is the full form of LSI?
- (1) Low Scale Internet
 - (2) Large Scale Internet
 - (3) Low Scale Integration
 - (4) Large Scale integration
 - (5) Local Scale Integration
- 316.** To move the text from its original position to another position without deleting it is called
- (1) Scrolling
 - (2) Searching
 - (3) Moving
 - (4) Copying
 - (5) Halting
- 317.** Which of the following is an active cell in Excel?
- (1) Current Cell
 - (2) Formula
 - (3) Range
 - (4) Cell Address
 - (5) None of these
- 318.** What is included in an e-mail address?
- (1) Domain name followed by user's name
 - (2) User's name followed by domain name
 - (3) User's name followed by postal address
 - (4) User's name followed by street address
 - (5) None of these
- 319.** What is called the secret code which prohibits entry into some programs?
- (1) Access Code
 - (2) Passport
 - (3) Entry code
 - (4) Password
 - (5) Keyword
- 320.** Which of the following types of menu shows further sub-choices?
- (1) Reverse
 - (2) Template
 - (3) Scrolled
 - (4) Rapped
 - (5) Pull Down
- 321.** Which of the following operations is safe if an e-mail from an unknown sender is received?
- (1) Open it to know about the sender and answer it.
 - (2) Delete it after opening it.
 - (3) Delete is without opening it
 - (4) Open it and try to find who the sender is.
 - (5) None of these
- 322.** The other name of a motherboard is
- (1) Mouse
 - (2) Computer Board
 - (3) System Device
 - (4) Central Board
 - (5) System Board

- 323.** By which of the following operations can any part of a document be seen on the screen?
 (1) Searching (2) Pasting (3) Scrolling (4) Editing (5) Copying
- 324.** Which of the following characteristics is used to compute the results from Excel data?
 (1) Go to (2) Table (3) Chart (4) Diagram
 (5) Formula and Function
- 325.** Which type of storage is a hard disc?
 (1) Non-permanent (2) Volatile (3) Temporary
 (4) Non-volatile (5) None of these
- 326.** Which of the following is not a software?
 (1) Excel (2) Printer-Driver
 (3) Operating System (4) Powerpoint (5) Mouse
- 327.** The smallest unit of information a computer can understand and process is known as a
 (1) digit (2) byte (3) megabyte (4) kilobyte (5) bit
- 328.** Compatibility, with regard to computers, refers to
 (1) the software doing the right job for the user
 (2) it being versatile enough to handle the job
 (3) the software being able to run on the computer
 (4) software running with only other previously installed software
 (5) software permanently available in the computer
- 329.** A _____ uses pressure as a user presses it with a stylus to send signals.
 (1) touchpad (2) TrackPoint (3) graphics tablet (4) trackpad (5)
 keyboard
- 330.** The justification that aligns text on both margins of a document in Word is
 (1) Justify (2) Bold (3) Center (4) Right (5) Balanced
- 331.** A partially completed workbook that contains formulas and formatting, but no data is called a
 (1) prototype (2) template (3) model (4) function (5) None of these
- 332.** A byte can represent any number between 0 and
 (1) 2 (2) 255 (3) 256 (4) 1024 (5) 1025
- 333.** Connectivity for a new computer means
 (1) allowing a printer to be connected to it
 (2) having a modem and / or network connection to communicate with other computers
 (3) connecting the software to the hardware of the system
 (4) connecting a mouse a keyboard and a printer-all essential hardware pieces for the average user
 (5) software permanently available in the computer
- 334.** A _____ is used to read handwritten or printed text to make a digital image that is stored in memory.
 (1) printer (2) laser beam (3) scanner (4) touchpad (5) keyboard
- 335.** The shortcut key Ctrl+F in Word is used for
 (1) to view document in full view
 (2) to open the formula dialog box (3) to save the file
 (4) to open the find and replace dialog box (5) None of these
- 336.** Each cell in a Microsoft Office Excel document is referred to by its cell address, which is the
 (1) cell's column label
 (2) cell's column label and worksheet tab name
 (3) cell's row label
 (4) cell's row and column labels (5) cell's contents

- 337.** The most widely used code that represents each character as a unique 8-bit code is
 (1) ASCII (2) Unicode (3) binary numbering system
 (4) EBCDIC (5) ASCII
- 338.** Operating systems and utility programs are in a class of software known as :
 (1) application software (2) sequential software
 (3) software suites (4) BIOS software
 (5) system software
- 339.** OCR stands for
 (1) Optical Coding Recognizer (2) Ostensibly Characterised Reader
 (3) Original Code Reader (4) Original Character Reader
 (5) Optical Character Recognition
- 340.** The Open, Print and Save buttons are all located on the
 (1) status bar (2) formatting toolbar
 (3) standard toolbar (4) title bar
 (5) status and title bars
- 341.** To copy a cell, you would drag the cell border while simultaneously holding down the Ctrl key when
 (1) you have one or more cells to copy
 (2) only some of the cells are visible in the window
 (3) you don't want to refer to absolute references
 (4) the distance between cells is short and they are both visible in the window
 (5) None of these
- 342.** The permanently etched program in ROM that automatically begins executing the computer's instructions is the
 (1) BIOS (2) ROM (3) CMOS (4) RAM (5) None of these
- 343.** Information stored in RAM is considered volatile, which means it is
 (1) stored there permanently.
 (2) not held permanently, only temporarily
 (3) stored when the electricity is shut off
 (4) stored permanently in the CPU device (5) None of these
- 344.** The display size of a monitor is measured
 (1) zig-zig (2) horizontally
 (3) vertically (4) from center to the furthest corner
 (5) None of these
- 345.** The name of a Microsoft office word document is displayed in both the ____ and the taskbar.
 (1) menu bar (2) taskbar
 (3) Formatting toolbar (4) Standard toolbar (5) title bar
- 346.** Excel is designed to provide visual cues to the relationship between the cells that provide values to the formulas or the cells that depend on the formulas by
 (1) Bolding the cell references to match the colour coding of the borders around the referenced worksheet cells.
 (2) highlighting the cell reference.
 (3) colour coding the cell reference in the formula to match the border around the referenced worksheet cells.
 (4) bolding the cell references (5) None of these
- 347.** A limitation of software that digitizes voice data is that it
 (1) is prohibitively expensive.
 (2) must be trained to recognize individual voices.
 (3) can only be used on high-end computers. (4) cannot be used on laptop computers.
 (5) cannot be used on desktop computers.

- 348.** External devices such as printers, keyboards and modems are known as
 (1) add-on devices (2) peripherals
 (3) extra hardware devices (4) PC expansion slot add-ons (5) special-buys
- 349.** The higher the resolution of a monitor, the
 (1) larger the pixels (2) less clear the screen is
 (3) further apart the pixels (4) closer together the pixels (5) None of these
- 350.** To select a Word, you click it
 (1) once (2) twice (3) three times (4) four times (5) None of these
- 351.** This Excel feature includes functions to calculate an Average, Minimum, Maximum and Count
 (1) Format (2) Number (3) AutoSum (4) Calculate (5) MIN
- 352.** For a computer to recognize and understand analog data it must first be
 (1) sent to a mainframe for interpretation
 (2) analyzed by the ALU of the CPU
 (3) decoded (4) analyzed for viruses (5) digitized
- 353.** Expansion cards are inserted into
 (1) slots (2) peripheral devices (3) the CPU
 (4) the back of the computer (5) pegs
- 354.** Which type of software is distributed free but requires the users to pay some amount for further use ?
 (1) freeware (2) shareware (3) rentalware (4) public-domain software
 (5) abandonware
- 355.** Using Print Preview is useful when you want to
 (1) Colour the document (2) Save the document
 (3) Delete the document (4) Copy the document
 (5) View how the document will appear when printed
- 356.** What does a Web site address uniquely specify ?
 (1) Web browser (2) Web site (3) PDA
 (4) Storage (5) Hard-disk
- 357.** A pixel is a
 (1) picture element or dot on a screen.
 (2) point of ink on a laser-printed page.
 (3) point of ink on an ink-jet printed page.
 (4) light beam used as an input device. (5) None of these
- 358.** The most common pointing input device is the
 (1) trackball (2) touchpad (3) touchscreen (4) mouse (5) scanner
- 359.** The file that is created through word processing is a
 (1) database file (2) storage file
 (3) worksheet file (4) document file (5) graphical file
- 360.** Web pages are saved in ____ format
 (1) http:// (2) HTML (3) DOC (4) URL (5) None of these
- 361.** What are the two parts of an E-mail address ?
 (1) User name and street address
 (2) Legal name and phone number
 (3) User name and domain name
 (4) Initials and password
 (5) login name and password
- 362.** If employees reside in different parts of the country and need to meet monthly, useful computer technology would be
 (1) video-display software (2) video digitizing

- (3) video conferencing (4) video scanning (5) None of these
- 363.** The wheel located between the two standard buttons on a mouse is used to
 (1) click in Web pages (2) shut down
 (3) click and select items (4) jump to different Web pages
 (5) scroll
- 364.** Which type of software is used in the design of products, structures, civil engineering, drawings and maps ?
 (1) CAD programs (2) desktop programs
 (3) drawing programs (4) painting programs
 (5) video/audio programs
- 365.** Advanced word processing features include all except creation of
 (1) alternate headers and footers (2) columns
 (3) detailed architectural drawings (4) stylesheets
 (5) None of these
- 366.** The computer that hosts your e-mail account is known as a(n)
 (1) Host (2) E-mail client (3) E-mail server
 (4) Listserv (5) None of these
- 367.** ____ can interpret voice data into words that can be understood by the computer
 (1) Speech input hardware (2) Talking software
 (3) Word recognition software (4) Speech recognition software
 (5) Adobe reader
- 368.** A touchpad responds to
 (1) light (2) pressure (3) clicking
 (4) the sense of heat from fingertips (5) None of these
- 369.** What is the term for calculations used within spreadsheets ?
 (1) analyses (2) ranges (3) formulas (4) recalculations(5) values
- 370.** This is a set of values that you want to chart in Excel
 (1) Object (2) Numbers (3) Data Mart (4) Formulas (5) Data series
- 371.** Before you can begin using e-mail, you must have a(n)
 (1) Browser (2) Modem (3) Server (4) Scanner (5) Account
- 372.** Until a computer can recognize handwriting, an input device must
 (1) store the information in secondary storage
 (2) optimize the information
 (3) digitize the information
 (4) show the information on a screen (5) become an output device also
- 373.** The pointing device that comes built into a laptop computer can be any except a
 (1) mouse (2) trackball (3) touchpad
 (4) pointing stick (5) None of these
- 374.** The button that displays the window over the entire screen is
 (1) scroll box (2) Downsize (3) Restore Down
 (4) Minimize (5) Maximize
- 375.** The .xls extension is used for ____ files.
 (1) Windows (2) Access (3) PowerPoint (4) Word (5) Excel
- 376.** Which of the following are tasks that may be completed when configuring your e-mail client ?
 (1) Provide the IP address of your ISP's mail server.
 (2) Provide the name of your e-mail account
 (3) Specify that mail is to be deleted from the host computer after it is downloaded to your computer.
 (4) All of these (5) None of these

- 377.** Assembly language is
 (1) Machine Language
 (2) High-level programming language
 (3) A low-level programming language
 (4) Language for assembling computers (5) None of these
- 378.** Which of the following is not one of the syntax rules ?
 (1) The order in which you list the function's arguments
 (2) The precedence of the arguments
 (3) Whether or not the function has arguments
 (4) Properly spelling the function's name (5) None of these
- 379.** The binary system is a number system to the base
 (1) 2 (2) 4 (3) 8 (4) 10 (5) 16
- 380.** Which of the following is not an example of hardware ?
 (1) Scanner (2) Printer (3) Monitor (4) Mouse (5) Interpreter
- 381.** Which of the following is hardware and not software ?
 (1) Excel (2) Printer driver
 (3) Operating System (4) Power Point (5) CPU
- 382.** On a CD-RW you can
 (1) read and write information (2) only read information
 (3) only write information (4) read, write and rewrite information
 (5) None of these
- 383.** This is not a function category in Excel
 (1) Logical (2) Data Series (3) Financial (4) Text (5) None of these
- 384.** In Excel, this is a prerecorded formula that provides a shortcut for complex calculations
 (1) Value (2) Data Series (3) Function (4) Field (5) None of these
- 385.** The following computer's memory is characterized by low cost per bit stored
 (1) Primary (2) Secondary (3) Hard Disk (4) All of these (5) None of these
- 386.** What happens when we try to delete the files on the floppy ?
 (1) The files get moved to the Recycle Bin
 (2) Files on a floppy cannot be deleted
 (3) The files get deleted and can be restored again from Recycle Bin
 (4) The files get deleted and cannot be restored again
 (5) The file gets copied on the Hard disk
- 387.** In Word, replace option is available on
 (1) File Menu (2) View Menu (3) Edit Menu
 (4) Format Menu (5) None of these
- 388.** In Word, you can change Page Margins by
 (1) Dragging the scroll box on the scroll bars
 (2) Deleting the margin boundaries on the Ruler
 (3) Dragging the margin boundaries on the Ruler
 (4) Clicking the right mouse button on the Ruler (5) None of these
- 389.** What type of keys are 'ctrl' and 'shift' ?
 (1) adjustment (2) function (3) modifier
 (4) alphanumeric (5) None of these
- 390.** A word gets selected by clicking it to select a word, in Word
 (1) once (2) twice (3) three times (4) four times (5) None of these
- 391.** To reverse the effect of your last action in word
 (1) Use the cut command (2) Use the Undo command
 (3) Press the delete key (4) Use the Redo command (5) None of these

- 392.** Your position in the text is shown by a
 (1) Blinker (2) Cursor (3) Causer (4) Pointer (5) None of these
- 393.** The time for the actual data transfer after receiving the request for data from secondary storage is referred to as the disk's
 (1) transfer time (2) movement time
 (3) access time (4) data input time (5) None of these
- 394.** Which of the following categories would include a keyboard ?
 (1) Printing Device (2) Output Device
 (3) Pointing Device (4) Storage Device (5) Input Device
- 395.** Using output devices one can
 (1) input data (2) store data (3) scan data (4) view or print data
 (5) None of these
- 396.** Why is the Caps Lock key referred to as a toggle key ?
 (1) Because its function goes back and forth every time it is pressed
 (2) Because it cannot be used for entering numbers
 (3) Because it cannot be used to delete
 (4) Because it cannot be used to insert (5) None of these
- 397.** Using Print Preview is useful when you want to
 (1) Colour the document (2) Save the document
 (3) Delete the document (4) Copy the document
 (5) View how trip document will appear when printed
- 398.** Which of the following can input graphical images and pictures for a computer ?
 (1) Plotter (2) Scanner (3) Mouse (4) Printer (5) Keyboard
- 399.** When a chart is placed on this, it is much larger and there is no other data on it
 (1) Chart sheet (2) Exclusive sheet
 (3) Primary sheet (4) Reference sheet (5) None of these
- 400.** Information that comes from an external source and fed into computer software is called
 (1) Output (2) Input (3) Throughput (4) Reports (5) None of these
- 401.** The main system board of a computer is called the
 (1) integrated circuit (2) motherboard (3) processor
 (4) microchip (5) None of these
- 402.** This dialog box specifies or modifies the worksheet cell range containing data to be charted
 (1) Chart Location (2) Chart Style
 (3) Chart Options (4) Chart Source Data (5) None of these
- 403.** If you change Windows 98 to Windows XP, you are actually performing
 (1) upstart (2) upgrade (3) update (4) patch (5) None of these
- 404.** The operating system, that is self-contained in a device and resident in the ROM is
 (1) Batch Operating System
 (2) Real-time Operating System
 (3) Embedded Operating System
 (4) Multi-Processor Operating System (5) None of these
- 405.** To make a copy of the current document to disk
 (1) Use the "save" command (2) This cannot be done
 (3) Use the "duplicate" command (4) Copy the document
 (5) Use the "save as" command
- 406.** In the formula, $= B1/B2 + B3$, which of the following is the correct precedence ?
 (1) Addition higher precedence than division
 (2) Equal precedence among the two operators proceed right to left
 (3) Equal precedence among the two operators proceed left to right
 (4) Division higher precedence than addition (5) None of these

- 407.** POST stands for
 (1) Power On Self Test (2) Program On Self Test
 (3) Power On System Test (4) Program On System Test
 (5) Power Off System Test
- 408.** In Word, you can use Styles to
 (1) Make copies of documents (2) Save changes to documents
 (3) Delete text in documents (4) Format your documents (5) None of these
- 409.** How many megabytes make a gigabyte ?
 (1) 1024 (2) 128 (3) 256 (4) 512 (5) 64
- 410.** Which of the following is not a term pertaining to the Internet ?
 (1) Keyboard (2) Link (3) Browser (4) Search Engine (5) Hyperlink
- 411.** Which of the following is used by the browser to connect to the location of the Internet resources ?
 (1) Linkers (2) Protocol (3) Cable (4) URL (5) None of these
- 412.** Excel would evaluate the formula, = 20*10/4*8, and return the answer
 (1) 400 (2) 40 (3) 6.25 (4) 232 (5) 600
- 413.** Which of the following is the fastest type of computer ?
 (1) Laptop (2) Notebook (3) Personal computer (4) Workstation
 (5) Supercomputer
- 414.** Linux is a type of ____ software.
 (1) Shareware (2) Commercial (3) Proprietary (4) Open Source (5) Hidden type
- 415.** Which key is used to delete one character to the left of the current position of the cursor ?
 (1) Backspace (2) Delete (3) Insert (4) Esc (5) Ctrl
- 416.** Which part of the computer helps to store information ?
 (1) Monitor (2) Keyboard (3) Disk drive (4) Printer (5) Plotter
- 417.** To restart the computer the following combination of keys is used
 (1) Del + Ctrl (2) Backspace + Ctrl (3) Esc + Ctrl
 (4) Insert + Esc (5) Ctrl + Alt + Del
- 418.** ASCII stands for
 (1) American Special Computer for Information Integration
 (2) American Standard Computer for Information Interchange
 (3) American Special Code for Information Interchange
 (4) American Special Computer for Information Interchange
 (5) American Standard Code for Information Interchange
- 419.** In Word, when you indent a paragraph, you
 (1) push the text in with respect to the margin
 (2) change the margins on the page
 (3) move the text up by one line
 (4) move the text down by one line (5) None of these
- 420.** Which keys enable the input of numbers quickly ?
 (1) ctrl, shift and alt (2) function keys
 (3) the numeric keypad (4) arrow keys (5) None of these
- 421.** When you enter text in a cell in Excel, it also appears in which of the following ?
 (1) Status bar (2) Formula bar (3) Row heading
 (4) Name box (5) None of these
- 422.** Which elements of a Word document can be displayed in colour ?
 (1) Only graphics (2) Only text
 (3) Only the first word of each line
 (4) All elements, but only if you have a colour printer (5) All elements

- 423.** A workbook is a collection of
 (1) Page Setup (2) Buttons (3) Diagrams (4) Charts (5) Worksheets
- 424.** ____ appear at the bottom of the Excel Window.
 (1) Sheet tabs (2) Name Box (3) Formula bar (4) Title bar (5) None of these
- 425.** EPROM stands for
 (1) Erasable Programmable Read-Only Memory
 (2) Electronic Programmable Read-Only Memory
 (3) Enterprise Programmable Read-Only Memory
 (4) Extended Programmable Read-Only Memory
 (5) Electrical Programmable Read-Only Memory
- 426.** The technology that stores only the essential instructions on a microprocessor chip and thus enhances its speed is referred to as
 (1) CISC (2) RISC (3) CD-ROM (4) Wi-Fi (5) MISC
- 427.** Which is not a basic function of a computer ?
 (1) Store data (2) Accept input (3) Process data
 (4) Copy text (5) Accept and process data
- 428.** ASCII is a coding system that provides
 (1) 256 different characters (2) 512 different characters
 (3) 1024 different characters (4) 128 different characters
 (5) 1000 different characters
- 429.** Which part of the computer is directly invoked in executing the instructions of the computer program ?
 (1) The scanner (2) The main storage
 (3) The secondary storage (4) The printer (5) The processor
- 430.** In order to create column data in Word, you need to
 (1) tab consecutively until your cursor reaches the desired place
 (2) set tabs or use the Table menu
 (3) use Excel
 (4) press the space bar until your cursor reaches the desired place
 (5) None of these
- 431.** File are organized by storing them in
 (1) tables (2) databases (3) folders (4) graphs (5) diagrams
- 432.** When a computer is switched on, the booting process performs
 (1) Integrity Test (2) Power-On Self-Test
 (3) Correct Functioning Test (4) Reliability Test (5) Shut-down
- 433.** In Word, the feature that automatically detects common errors is called
 (1) Autocorrect (2) Autograph (3) Spelling and Grammar
 (4) Go to (5) Thesaurus
- 434.** A computer system that is old and perhaps not satisfactory is referred to as a(n)
 (1) Ancient system (2) Historical system
 (3) Age old system (4) Legacy system (5) Legal system
- 435.** Which of the following is not a binary number ?
 (1) 001 (2) 101 (3) 202 (4) 110 (5) 011
- 436.** Which of the following does not store data permanently ?
 (1) ROM (2) RAM (3) Floppy Disk (4) Hard Disk (5) None of these
- 437.** Which of the following is the smallest storage ?
 (1) Megabyte (2) Gigabyte (3) Kilobyte (4) Terabyte (5) Nanobyte
- 438.** Which menu enables the user to choose toolbars ?
 (1) View (2) Format (3) Insert (4) Edit (5) Help

- 439.** By viewing the properties of the local hard disk of a computer, the user can find out
 (1) the amount of space that has been used up and the remaining free space on the disk
 (2) the name of the user viewing the properties of the disk
 (3) nothing useful to user
 (4) the number of programs available in the computer (5) None of these
- 440.** Pre-defined and built-in formulas in Excel are known as
 (1) Autosheets (2) Diagrams (3) Charts (4) Tables (5) Functions
- 441.** Which of the following contains permanent data and gets updated during the processing of transactions ?
 (1) Operating System File (2) Transaction File (3) Software File (4)
 Master File (5) Any File
- 442.** The keyboard shortcut to centralize the selected text in Word is
 (1) Ctrl + Shift + C (2) Ctrl + C (3) Alt + C
 (4) There is no keyboard shortcut for this operation (5) Ctrl + E
- 443.** Which of the following helps to protect floppy disks from data getting accidentally erased ?
 (1) Access notch (2) Write-protect notch
 (3) Entry notch (4) Input notch (5) None of these
- 444.** A modem is connected to
 (1) a telephone line (2) a keyboard (3) a printer (4) a monitor
 (5) a scanner
- 445.** Large transaction processing systems in automated organizations use
 (1) Online processing (2) Batch processing
 (3) Once-a-day processing (4) End-of-day processing
 (5) Once-a-week processing
- 446.** Which of the following is done to force a page break in Word ?
 (1) Position the cursor at the appropriate place and press F1.
 (2) Use the Insert/Section Break.
 (3) Position the cursor at the appropriate place and press Ctrl + Enter.
 (4) Change the font size and colour of the document. (5) None of these
- 447.** Where is the disk placed in a computer ?
 (1) In the modem (2) In the hard drive
 (3) Into the CPU (4) In the disk drive
 (5) In the scanner
- 448.** The name that the user gives to a document is referred to as
 (1) document name (2) filename
 (3) name given (4) document identity (5) file ID
- 449.** Which Excel feature enables pre-defined layouts to selected tables in the worksheet?
 (1) Autoformat (2) Header and Footers
 (3) Undo and Redo (4) Spelling and Grammar
 (5) Autograph
- 450.** Which of the following is a hardware and not a software ?
 (1) PowerPoint (2) Printer driver
 (3) Operating System (4) ALU (5) Excel
- 451.** What is the default file extension for all Word documents ?
 (1) TXT (2) WRD (3) FIL (4) DOC (5) None of these
- 452.** Which of the following is true for the octal system ?
 (1) It needs less digits to represent a number than in the binary system.
 (2) It needs more digits to represent a number than in the binary system.
 (3) It needs to same number of digits to represent a number as in the binary system.
 (4) It needs the same number of digits to represent a number as in the decimal system.

- (5) None of these
- 453.** When you scroll through a document, the ____ does not move.
 (1) I-beam (2) scroll (3) page (4) insertion point
 (5) None of these
- 454.** Which of the following is not a term pertaining to the Internet ?
 (1) Link (2) Hyperlink (3) Browser (4) Search Engine (5) Mouse
- 455.** A set of formats that has a name and can be quickly applied to selected text is called a(n)
 (1) font (2) style (3) feature (4) finish (5) None of these
- 456.** You can show an entire page or multiple pages at the same time using ____ options.
 (1) Word (2) Draft (3) Zoom (4) Show/Hide (5) Hide page
- 457.** The basic goal of a computer process is to convert data into
 (1) graphs (2) tables (3) files (4) information (5) diagrams
- 458.** When browsing the World Wide Web, the browser is a
 (1) feeder (2) server program (3) application program
 (4) system program (5) client program
- 459.** Where is the newly received email stored ?
 (1) In your website (2) In Address-box
 (3) In Inbox (4) In your personal laptop
 (5) None of these
- 460.** ____ implies a combination of audio, video, text, animation and graphics.
 (1) Special media (2) Multiplexer
 (3) Multiplier (4) Message-media (5) Multimedia
- 461.** CD stands for
 (1) Computer Disk (2) Contact Disk
 (3) Circular Disk (4) Cold Disk (5) Compact Disk
- 462.** In Excel, a ____ is identified by the cell in the upper-left corner and the cell in the lower-right corner, separated by a colon.
 (1) worksheet (2) value (3) cell reference (4) range (5) None of these
- 463.** Which of the following is a secondary device ?
 (1) Keyboard (2) CD (3) ALU (4) Mouse (5) Printer
- 464.** A document in portrait prints
 (1) the same characters per line with the same document in landscape.
 (2) more characters per line than the same document in landscape.
 (3) less characters per line than the same document in landscape.
 (4) smaller fonts in order to fit the same amount of characters per line with landscape.
 (5) None of these
- 465.** When the mouse is moved, it causes a picture to move on the screen which is referred to as in a
 (1) menu (2) icon (3) pointer (4) tab (5) None of these
- 466.** Press the ____ key to move the insertion point to the first cell in a row in Excel.
 (1) Page up (2) Page down (3) Home (4) Tab (5) None of these
- 467.** Small programs that act on data received by the user's computer as part of a Web page are called
 (1) search engines (2) servlets (3) browsers (4) applets
 (5) feedback
- 468.** How many margins are there on a page ?
 (1) Two (header and footer) (2) Four (top, bottom, right, left)
 (3) Two (landscape and portrait) (4) Two (top and bottom)
 (5) None of these
- 469.** CD and DVD drives are the examples of
 (1) coding media (2) solid stage storage
 (3) Zip drives (4) printers (5) storage devices

- 470.** The language used in a computer that is similar to the language of humans and is easy to understand is referred to as
 (1) Source Code (2) Machine Language
 (3) High Level Language (4) Object Code
 (5) Assembly Language
- 471.** In Excel, the contents of the active cell are displayed in the ____
 (1) footer bar (2) tool bar (3) task bar (4) menu bar (5) formula bar
- 472.** A CD-ROM disk
 (1) cannot be erased and rewritten
 (2) has more storage capacity than a CD-R
 (3) holds less data than a floppy disk
 (4) can be written to only once (5) None of these
- 473.** What is the main folder on a storage device called ?
 (1) Platform (2) Interface (3) Root Directory
 (4) Home Page (5) None of these
- 474.** Storage device found inside the computer.
 (1) CD-ROM (2) Zip Disk (3) Super Disk (4) Hard Disk (5) None of these
- 475.** Which of these keys is not on the number keypad ?
 (1) Ctrl (2) Del (3) Enter (4) Num Lock (5) None of these
- 476.** If you are going to the site you use often, instead of having to type in the address every time, you should
 (1) save it as a file (2) make a copy of it
 (3) bookmark it (4) delete it (5) None of these
- 477.** The computer monitor is which type of device ?
 (1) Input (2) Output (3) Processing (4) Software (5) None of these
- 478.** How many options does a binary choice offer ?
 (1) One (2) Two (3) Three
 (4) It depends on the amount of memory in the computer (5) None of these
- 479.** The smallest unit of information a computer can understand and process is known as a
 (1) digit (2) kilobyte (3) bit (4) byte (5) None of these
- 480.** RAM is ____ and ____ .
 (1) volatile, temporary (2) nonvolatile, permanent
 (3) nonvolatile, temporary (4) volatile, permanent
 (5) None of these
- 481.** Which is not an item of hardware ?
 (1) An MP3 file (2) A keyboard (3) A monitor (4) A mouse (5) None of these
- 482.** The box that contains the central electronic components of the computer is the
 (1) mother board (2) system unit
 (3) peripheral (4) input device (5) None of these
- 483.** What menu is selected to cut, copy, and paste ?
 (1) File (2) Edit (3) Tools (4) Table (5) None of these
- 484.** A program that converts a high-level language source file into a machine-language file is called a
 (1) translator (2) assembler (3) compiler (4) linker (5) None of these
- 485.** The ____ indicates how much data a particular storage medium can hold.
 (1) access (2) capacity (3) memory (4) storage (5) None of these
- 486.** A (n) ____ is created by an application.
 (1) executable file (2) software program
 (3) document (4) operating system
 (5) None of these

- 487.** The ____ key and the ____ key can be used in combination with other keys of perform short-cuts and special tasks.
 (1) Control, Alt (2) Function, toggle
 (3) Delete, Insert (4) Caps Lock, Num Lock
 (5) None of the above
- 488.** What is a file ?
 (1) A file is a section of main storage used to store data.
 (2) A file is a collection of information that has been given a name and is stored in secondary memory. (3) A file is the part of a program that is used to describe what the program should do.
 (4) A file is another name for floppy disk.
 (5) None of the above.
- 489.** For creating a document, you use ____ command at file menu.
 (1) Open (2) Close (3) New (4) Save (5) None of these
- 490.** Applications are often referred to as
 (1) data file (2) executable files
 (3) system software (4) the operating system (5) None of these
- 491.** The primary output device for computers is a
 (1) video monitor (2) printer (3) keyboard (4) mouse
 (5) None of these
- 492.** Compatibility in regard to computers refers to
 (1) the software doing the right job for the user.
 (2) it being versatile enough to handle the job
 (3) the software being able to run on the computer
 (4) Software running with other previously installed software
 (5) None of the above
- 493.** How is it possible that both programs and data can be stored on the same floppy disk ?
 (1) A floppy disk has two sides, one for data and one for programs.
 (2) Programs and data are both software, and both can be stored on any memory device.
 (3) A floppy disk has to be formatted for one or for the other.
 (4) Floppu disk can only store data, not programs. (5) None of these
- 494.** The output which is made up of pictures, sounds and video is called.
 (1) COM (2) hard copy (3) graphics (4) multimedia (5) None of these
- 495.** A device that provides emergency power to your computer, conditions the voltage and protects against power surges is called a ____.
 (1) PSU = Power Supply Unit
 (2) USP = Universal Surge Protector
 (3) UPPS = Universal Power Protection and Supply
 (4) UPS = Uninterruptible Power Supply (5) None of these
- 496.** Documentation of computer programs is important so that
 (1) users can learn how to use the program
 (2) other programmers can know how to maintain the program
 (3) the programmer can see why the code is written that way while hunting for sources of error.
 (4) All of the above (5) None of the above
- 497.** Two different files can have the same name if.
 (1) they are in different folders (2) they are on different drives
 (3) Never (4) the names are capitalised differently
 (5) None of the above

- 498.** Secondary storage
 (1) does not require constant power
 (2) does not use magnetic media
 (3) consists of four main types of devices
 (4) does not store information for later retrieval (5) None of the above
- 499.** The first computers were programmed using
 (1) assembly language (2) machine language
 (3) spaghetti code (4) source code (5) None of these
- 500.** Deleted data remains on a disk until
 (1) the data is overwritten (2) the recycle bin is emptied
 (3) a file compression utility is used (4) the disk is scanned
 (5) None of the above
- 501.** When you cut or copy information it gets place in the _____.
 (1) Clipart (2) Clipboard (3) Internet
 (4) Motherboard (5) None of these
- 502.** _____ provides the means to move the pointer on the screen and give information to the computer by clicking its buttons.
 (1) Scanner (2) Mouse (3) Keyboard (4) Program (5) None of these
- 503.** The name of the location of a particular piece of data is its _____.
 (1) address (2) memory name
 (3) storage site (4) data location (5) None of these
- 504.** A device that is connected to the motherboard is _____.
 (1) called an external device (2) called an adjunct device
 (3) called a peripheral device (4) must connect using ribbon cable
 (5) None of the above
- 505.** The physical components of a computer system.
 (1) Software (2) Hardware (3) ALU (4) Control Unit
 (5) None of the above
- 506.** Which is a graphical representation of an application ?
 (1) Windows 95 (2) Windows Explorer (3) Icon
 (4) Taskbar (5) None of the above
- 507.** A field is a related group of _____.
 (1) Records (2) Files (3) Characters (4) Cables (5) None of these
- 508.** To restart the computer _____ key is used.
 (1) Del + Ctrl (2) Backspace + Ctrl (3) Ctrl + Alt + Del
 (4) Reset (5) None of the above
- 509.** The process of preparing a floppy diskette for use is called.
 (1) assembling (2) translating (3) parsing (4) formatting (5) None of these
- 510.** A prescribed set of well-defined instruction for solving mathematical problems is called _____.
 (1) a compiler (2) a code (3) a description
 (4) an algorithm (5) None of these
- 511.** A program that enables you to perform calculations involving rows and columns of number is called a _____.
 (1) spreadsheet program (2) word processor
 (3) graphics package (4) window (5) None of these
- 512.** A record is related to a file as a statement is related to a _____.
 (1) procedure (2) file (3) program (4) data (5) None of these
- 513.** Housing all hardware, software, storage, and processing in some site location is called _____.
 (1) time-sharing (2) a distributed system
 (3) centralized processing (4) a host computer (5) None of these

- 514.** Several computers linked to a server to share programs and storage space.
 (1) network (2) grouping (3) library (4) integrated system
 (5) None of these
- 515.** Soft copy refers to _____.
 (1) printed output (2) music sounds
 (3) screen output (4) digitizing (5) None of these
- 516.** Meaningful filename helps in easy file _____.
 (1) Storing (2) Accessing (3) Identification
 (4) Printing (5) None of these
- 517.** LAN stands for _____.
 (1) Local Access Network (2) Local Area Network
 (3) Logical Access Network (4) Logical Area Network
 (5) None of these
- 518.** Special effect used to introduce slides in a presentation are called _____.
 (1) Effects (2) Custom animation
 (3) Transition (4) Animation (5) Preset animation
- 519.** Computers send and receive data in the form _____ signals.
 (1) Analog (2) Digital (3) Modulated (4) Demodulated (5) All of these
- 520.** Most World Wide Web pages contain commands in the language _____.
 (1) NIH (2) URL (3) HTML (4) IRC (5) FTP
- 521.** _____ are graphical objects used to represent commonly used application.
 (1) GUI (2) Drivers (3) Windows (4) Application (5) Icons
- 522.** Which of the following operating systems is not owned and licensed by a company?
 (1) Unix (2) Linux (3) Windows 2000
 (4) Mac (5) Windows
- 523.** In any window, the maximize button, the minimize button and the close buttons appear on
 (1) The title bar (2) Menu bar (3) Status bar (4) Ruler bar (5) Toolbar
- 524.** Which is the slowest internet connection service ?
 (1) Digital Subscriber Line (2) T1
 (3) Cable modem (4) Leased Line (5) Dial-up Service
- 525.** Every component of your computer is either _____.
 (1) software or CPU/RAM
 (2) hardware or software
 (3) application software or system software
 (4) input devices or output devices (5) None of these
- 526.** Checking that a pin code number is valid before it is entered into the system is an example of _____.
 (1) error correction (2) backup and recovery
 (3) data preparation (4) data validation (5) None of these
- 527.** A compiler translates higher-level programs into a machine language program, which is called _____.
 (1) source code (2) object code (3) compiled code
 (4) beta code (5) None of these
- 528.** A field that uniquely identifies which person, thing, or event the record describes is a _____.
 (1) file (2) data (3) field (4) key (6) None of these
- 529.** The ability to find an individual item in a file immediately _____.
 (1) sequential access (2) file allocation table
 (3) direct access (4) directory (5) None of these

- 530.** Computers connected to a LAN (Local Area Network) can ____ .
 (1) run faster (2) go on line
 (3) share information and/or share peripheral equipment
 (4) E-mail (5) None of these
- 531.** The two major categories of software include ____ .
 (1) operating system and utility (2) personal productivity and system
 (3) system and application (4) system and utility (5) None of these
- 532.** Windows 95, Windows 98. and Windows NT are known as ____ .
 (1) processors (2) domain names
 (3) modems (4) operating systems (5) None of these
- 533.** An educational institution would generally have the following in its domain name
 (1) .org (2) .edu (3) .inst (4) .com (5) .sch
- 534.** Information on a computer is stored as ____ .
 (1) analog data (2) digital data (3) modem data (4) watts data (5) None of these
- 535.** A program that works like a calculator for keeping track of money and making budgets ____ .
 (1) calculator (2) scholastic (3) keyboard (4) spreadsheet (5) None of these
- 536.** To take information from one source and bring it to your computer is referred to as ____ .
 (1) upload (2) download (3) transfer (4) de-link (5) None of these
- 537.** Each box in a spreadsheet is called a ____ .
 (1) cell (2) empty space (3) record (4) field (5) None of these
- 538.** To indent the first paragraph of your report, you should use this key ____ .
 (1) spacebar (2) return key (3) tab key (4) shift key (5) None of these
- 539.** ____ are distinct items that don't have much meaning to you in a given context
 (1) Fields (2) Data (3) Queries (4) Properties (5) None of these
- 540.** A Website address is a unique name that identifies a specific—on the web.
 (1) Web browser (2) PDA
 (3) Website (4) link (5) None of these
- 541.** An example of a telecommunications device is a ____ .
 (1) keyboard (2) mouse (3) printer (4) modem (5) None of these
- 542.** Which is the best definition of a software package ?
 (1) An add-on for your computer such as additional memory
 (2) A set of computer programs used for a certain function such, as word processing
 (3) A protection you can buy for a computer
 (4) The box, manual and license agreement that accompany commercial software
 (5) None of these
- 543.** You cannot link Excel worksheet data to a Word document ____ .
 (1) with the right drag method (2) with the hyperlink
 (3) with the copy and paste special commands
 (4) with the copy and paste buttons on the standard commands (5) All of these
- 544.** You can start Microsoft Word by using ____ button.
 (1) New (2) Start (3) Program
 (4) Control Panel (5) None of these
- 545.** A blinking symbol on the screen that shows where the next character will appear is a/an ____ .
 (1) delete key (2) arrow key (3) cursor (4) return key (5) None of these
- 546.** Which of the following could you do to remove a paragraph from a report you had written ?
 (1) Delete and edit (2) Highlight and delete
 (3) Cut and paste (4) Undo typing (5) None of these
- 547.** Date and Time are available on the desktop at ____ .
 (1) Taskbar (2) My Computer (3) Recycle Bin

- (4) Only (2) & (3) (5) None of these
- 548.** You click at B to make the text ____ .
 (1) Italics (2) Underlined
 (3) Italics and Underlined (4) Bold (5) None of these
- 549.** ____ is the process of finding errors in software code.
 (1) Debugging (2) Compiling (3) Interpreting (4) Testing (5) None of these
- 550.** In Excel, Charts are created using which option ?
 (1) Chart Wizard (2) Pivot Table
 (3) Pie Chart (4) Bar Chart (5) None of these
- 551.** Microcomputer hardware consists of three basic categories of physical equipment ____ .
 (1) keyboard, monitor, hard drive
 (2) system unit, input/output, memory
 (3) system unit, input/output, secondary storage
 (4) system unit, primary storage, secondary storage (5) None of these
- 552.** Which of the following is not a common feature of software applications ?
 (1) Menus (2) Windows (3) Help (4) Search (5) None of these
- 553.** A ____ contains buttons and menus that provide quick access to commonly used commands.
 (1) tool bar (2) menu bar (3) window (4) find (5) None of these
- 554.** For creating a document, you use ____ command at File Menu.
 (1) Open (2) Close (3) New (4) Save (5) None of these
- 555.** What is equipment used to capture information and commands ?
 (1) Output device (2) Input device
 (3) Storage device (4) Telecommunication device (5) None of these
- 556.** A ____ contains specific rules and words that express the logical steps of an algorithm.
 (1) programming language (2) programming structure
 (3) syntax (4) logic chart (5) None of these
- 557.** To access a mainframe or supercomputer, users often use a ____ .
 (1) terminal (2) node (3) desktop (4) handheld (5) None of these
- 558.** The central processing unit (CPU) ____ .
 (1) contains the electronic circuits that cause processing to occur
 (2) make the information resulting from processing available for use
 (3) allows data, programs, commands and user responses to be entered into a computer
 (4) consists of electronic components that store data
 (5) None of these
- 559.** ____ is when the computer is turned on and the operating system is loading.
 (1) Booting (2) Flashing (3) Tracking (4) Taping (5) None of these
- 560.** A ____ includes the file name and possibly a directory or folder.
 (1) file information packet (2) file button (3) file directory
 (4) file specification (5) None of these
- 561.** A(n) ____ is text that you want printed at the bottom of the page.
 (1) header (2) endnote (3) footnote (4) footer (5) None of these
- 562.** You can use the tab key to ____ .
 (1) move a cursor across the screen (2) indent a paragraph
 (3) move the cursor down the screen (4) Only (1) and (2)
 (5) None of these
- 563.** A string of eight 0s and 1s is called a ____ .
 (1) megabyte (2) kilobyte (3) gigabyte (4) byte (5) None of these
- 564.** ____ are symbols that represent any character or combination of characters.
 (1) Playing cards (2) Wildcards (3) Private keys (4) Public keys
 (5) None of these

- 565.** A word in a web page that, when clicked, opens another document
 (1) anchor (2) hyperlink (3) reference (4) URL (5) None of these
- 566.** The ____ also called the Web, contains billions of documents.
 (1) World Wide Web (2) HTTP (3) Web Portal (4) domain
 (5) None of these
- 567.** The most widely used input device is the ____ .
 (1) mouse (2) keyboard (3) modem (4) monitor (5) None of these
- 568.** Permanent instructions that the computer uses when it is turned on and that cannot be changed by other instructions are contained in
 (1) ROM (2) RAM (3) ALU (4) REM (5) None of these
- 569.** Computations and logical operations are performed by the ____ .
 (1) RAM (2) ALU (3) Register (4) Control unit (5) None of these
- 570.** The benefit of using computers is that ____ .
 (1) Computers are very fast and can store huge amounts of data
 (2) Computers provide accurate output even when input is incorrect
 (3) Computers are designed to be inflexible
 (4) All of these (5) None of these
- 571.** Developing sets of instructions for the computer to follow and to do the task the same way as many times as needed is called ____ .
 (1) listing (2) sequencing (3) programming
 (4) directing (5) None of these
- 572.** What type of resource is most likely to be a shared common resource in a computer network ?
 (1) Printers (2) Speakers
 (3) Floppy disk drives (4) Keyboards (5) None of these
- 573.** The vast network of computers that connects millions of people all over the world is called
 (1) LAN (2) Web (3) Hypertext (4) Internet (5) None of these
- 574.** To shrink a window to an icon ____ .
 (1) open a group window (2) minimise a window
 (3) maximise a window (4) restore a window (5) None of these
- 575.** Computers connected to a LAN (local area network) can ____ .
 (1) run faster (2) go on line
 (3) share information and/or share peripheral equipment
 (4) E-mail (5) None of these
- 576.** The portion that shows all the choices you can make while working in a window is called the ____ .
 (1) options (2) table (3) menu bar (4) item bar (5) None of these
- 577.** Which of the following is a common extension used in the file names for application programs ?
 (1) EXE (2) DIR (3) TXT (4) DOC (5) None of these
- 578.** Which of the following is not true about passwords?
 (1) A password should be a combination of mixed case alphanumeric characters
 (2) Password should be maximum 6 characters in length
 (3) A password that can be memorized easily should be used, so that it need not be noted down
 (4) A password that can be typed quickly without much effort should be used
 (5) None of these
- 579.** ____ is a set of computer programs that runs or controls computer hardware and acts as an interface with application programs and users.
 (1) Object code (2) A compiler (3) An operating system
 (4) The CPU (5) None of these

- 580.** Another word for CPU is ____ .
 (1) microprocessor (2) execute (3) microchip (4) decode
 (5) None of these
- 581.** Hardware devices that are not part of the main computer system and are often added later to the system are ____ .
 (1) clip art (2) highlight (3) execute (4) peripherals (5) None of these
- 582.** Information on a computer is stored as ____ .
 (1) analog data (2) digital data (3) modem data (4) watts data (5) None of these
- 583.** If you want to move an icon on your desktop, this is called ____ .
 (1) double clicking (2) highlighting (3) dragging (4) pointing
 (5) None of these
- 584.** To ____ a document means to make changes to its existing content.
 (1) format (2) save (3) edit (4) print (5) None of these
- 585.** Where is the disk put to enable the computer to read it ?
 (1) Disk drive (2) Memory (3) CPU (4) ALU (5) None of these
- 586.** Which of the following is not an example of hardware ?
 (1) Mouse (2) Printer (3) Monitor (4) EXCEL (5) None of these
- 587.** Which of the following is part of the System Unit ?
 (1) Monitor (2) CPU (3) CD-ROM (4) Floppy Disk (5) None of these
- 588.** IT stands for ____ .
 (1) Information Technology (2) Integrated Technology
 (3) Intelligent Technology (4) Interesting Technology
 (5) None of these
- 589.** Something which has easily understood instructions is said to be ____ .
 (1) user friendly (2) information (3) word processing
 (4) icon (5) None of these
- 590.** What is the sense of Documenting software ?
 (1) To use software and maintain that (2) To sell software at high price
 (3) To sell software to many customers (4) To that important
 (5) None of these
- 591.** When a computer is shut down, what happens ____ in RAM ?
 (1) Operating system (2) BIOS (3) Software Applications
 (4) Nothing (5) None of these
- 592.** What is the shape of CDs?
 (1) four cornered (2) rectangular (3) spherical (4) hexagonal
 (5) None of these
- 593.** What is output ?
 (1) Which processor takes from user (2) Which user gives to processor
 (3) Which processor gets from user (4) Which processor gives to user
 (5) None of these
- 594.** The blinking symbol which is seen on the screen that shows where the any character will appear ?
 (1) of delete (2) of control (3) of cursor (4) of return (5) None of these
- 595.** A small figure that represents as an application on your screen that is
 (1) menu (2) photo (3) modem (4) icon (5) None of these
- 596.** Copyrighted software that can be used for free is ____ .
 (1) shareware (2) freeware (3) groupware (4) e-mail (5) None of these
- 597.** The ____ becomes different shapes depending on the task you are performing.
 (1) active tab (2) insertion point (3) mouse pointer
 (4) Ribbon (5) None of these

- 598.** The capability of the operating system to enable two or more than two instructions to execute simultaneously in a single computer system by using multiple CPUs is ____ .
 (1) Multitasking (2) Multiprogramming
 (3) Multiprocessing (4) Multiexecution (5) None of these
- 599.** All of the following storage media have Read and Write capabilities except ____ .
 (1) flash memory cards (2) CD-ROMs
 (3) hard disk drives (4) floppy disks (5) None of these
- 600.** The ____ enables your computer to connect to other computers.
 (1) video card (2) sound card
 (3) network interface card (NIC) (4) controller card
 (5) None of these

Answer Key

1.(4)	2.(1)	3.(3)	4.(4)	5.(4)	6.(4)	7.(1)	8.(2)	9.(1)	10.(2)
11.(2)	12.(3)	13.(4)	14.(1)	15.(3)	16.(3)	17.(1)	18.(3)	19.(2)	20.(3)
21.(1)	22.(3)	23.(1)	24.(3)	25.(4)	26.(1)	27.(3)	28.(2)	29.(3)	30.(4)
31.(2)	32.(1)	33.(4)	34.(2)	35.(4)	36.(3)	37.(3)	38.(4)	39.(4)	40.(3)
41.(2)	42.(3)	43.(3)	44.(4)	45.(2)	46.(4)	47.(4)	48.(1)	49.(3)	50.(1)
51.(3)	52.(2)	53.(3)	54.(3)	55.(1)	56.(4)	57.(3)	58.(4)	59.(2)	60.(3)
61.(1)	62.(4)	63.(3)	64.(2)	65.(1)	66.(1)	67.(4)	68.(1)	69.(1)	70.(4)
71.(2)	72.(3)	73.(3)	74.(1)	75.(3)	76.(1)	77.(3)	78.(3)	79.(1)	80.(3)
81.(4)	82.(2)	83.(4)	84.(2)	85.(2)	86.(1)	87.(2)	88.(2)	89.(4)	90.(1)
91.(1)	92.(4)	93.(2)	94.(3)	95.(4)	96.(1)	97.(1)	98.(3)	99.(3)	100.(4)
101.(1)	102.(4)	103.(1)	104.(2)	105.(4)	106.(3)	107.(2)	108.(2)	109.(3)	110.(4)
111.(1)	112.(2)	113.(2)	114.(3)	115.(3)	116.(1)	117.(1)	118.(1)	119.(3)	120.(4)
121.(3)	122.(3)	123.(4)	124.(3)	125.(2)	126.(4)	127.(4)	128.(3)	129.(1)	130.(4)
131.(2)	132.(4)	133.(1)	134.(2)	135.(4)	136.(4)	137.(2)	138.(1)	139.(4)	140.(3)
141.(2)	142.(3)	143.(3)	144.(3)	145.(3)	146.(1)	147.(1)	148.(1)	149.(5)	150.(4)
151.(3)	152.(3)	153.(5)	154.(3)	155.(1)	156.(1)	157.(3)	158.(1)	159.(3)	160.(5)
161.(3)	162.(2)	163.(2)	164.(2)	165.(4)	166.(1)	167.(1)	168.(4)	169.(3)	170.(2)
171.(2)	172.(2)	173.(4)	174.(1)	175.(2)	176.(4)	177.(5)	178.(3)	179.(4)	180.(4)
181.(5)	182.(3)	183.(5)	184.(5)	185.(1)	186.(1)	187.(2)	188.(4)	189.(3)	190.(2)
191.(4)	192.(2)	193.(1)	194.(4)	195.(1)	196.(2)	197.(4)	198.(5)	199.(2)	200.(2)
201.(3)	202.(4)	203.(5)	204.(1)	205.(1)	206.(3)	207.(4)	208.(5)	209.(3)	210.(1)
211.(2)	212.(1)	213.(3)	214.(4)	215.(1)	216.(4)	217.(2)	218.(2)	219.(1)	220.(1)
221.(2)	222.(3)	223.(5)	224.(3)	225.(5)	226.(3)	227.(5)	228.(2)	229.(1)	230.(2)
231.(2)	232.(5)	233.(4)	234.(2)	235.(2)	236.(5)	237.(5)	238.(1)	239.(1)	240.(1)
241.(5)	242.(2)	243.(3)	244.(1)	245.(2)	246.(1)	247.(4)	248.(3)	249.(4)	250.(2)
251.(4)	252.(3)	253.(1)	254.(5)	255.(2)	256.(5)	257.(1)	258.(4)	259.(5)	260.(1)
261.(3)	262.(3)	263.(5)	264.(5)	265.(2)	266.(5)	267.(4)	268.(3)	269.(2)	270.(4)
271.(3)	272.(4)	273.(3)	274.(1)	275.(2)	276.(2)	277.(4)	278.(3)	279.(1)	280.(2)
281.(4)	282.(5)	283.(4)	284.(1)	285.(2)	286.(3)	287.(1)	288.(1)	289.(5)	290.(2)
291.(1)	292.(3)	293.(1)	294.(5)	295.(3)	296.(3)	297.(4)	298.(5)	299.(3)	300.(3)

301.(4) 302.(5) 303.(4) 304.(3) 305.(5) 306.(4) 307.(3) 308.(4) 309.(2) 310.(3)
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431.(3) 432.(2) 433.(1) 434.(4) 435.(3) 436.(2) 437.(5) 438.(1) 439.(1) 440.(5)
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451.(4) 452.(2) 453.(4) 454.(5) 455.(4) 456.(4) 457.(4) 458.(3) 459.(3) 460.(5)
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471.(5) 472.(1) 473.(3) 474.(4) 475.(1) 476.(1) 477.(5) 478.(1) 479.(3) 480.(1)
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531.(1) 532.(4) 533.(2) 534.(2) 535.(4) 536.(2) 537.(1) 538.(3) 539.(2) 540.(5)
541.(4) 542.(1) 543.(4) 544.(3) 545.(5) 546.(2) 547.(1) 548.(4) 549.(4) 550.(1)
551.(2) 552.(2) 553.(1) 554.(3) 555.(2) 556.(1) 557.(1) 558.(1) 559.(1) 560.(4)
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581.(4) 582.(2) 583.(3) 584.(3) 585.(1) 586.(4) 587.(2) 588.(1) 589.(1) 590.(1)
591.(4) 592.(3) 593.(4) 594.(3) 595.(4) 596.(2) 597.(3) 598.(3) 599.(2) 600.(3)