COMPUTER CAPSULE

Dear Readers,

      We are presenting you the Computer Capsule. As per our commitments towards the needs of every student, this capsule contains all the important facts and details that can be asked in the Upcoming Exams IBPS Exams. We are starting this with the introduction of the Syllabus. Let us begin now :
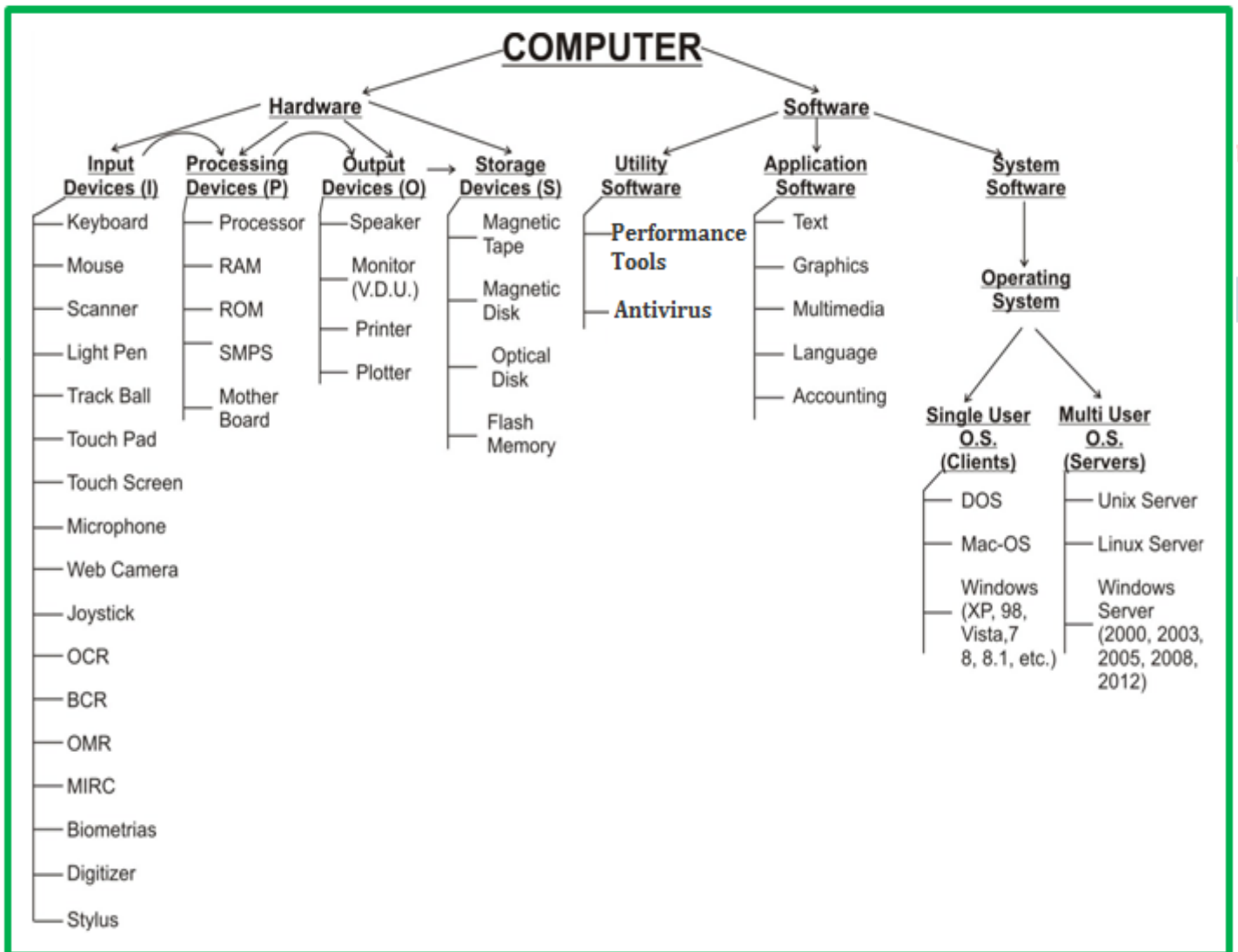
Syllabus of The Computer Section

1. Fundamentals of the Computer :
   i)   Hardware and Software
   ii) Memory and Memory Units
   iii) Number System
2. Internet
3. Microsoft Office (MS-Office)
4. Networking
5. DBMS (Database Management System)
6. Programming Languages
7. Full Forms/Abbreviations and Important Terms
8. Shortcut Keys
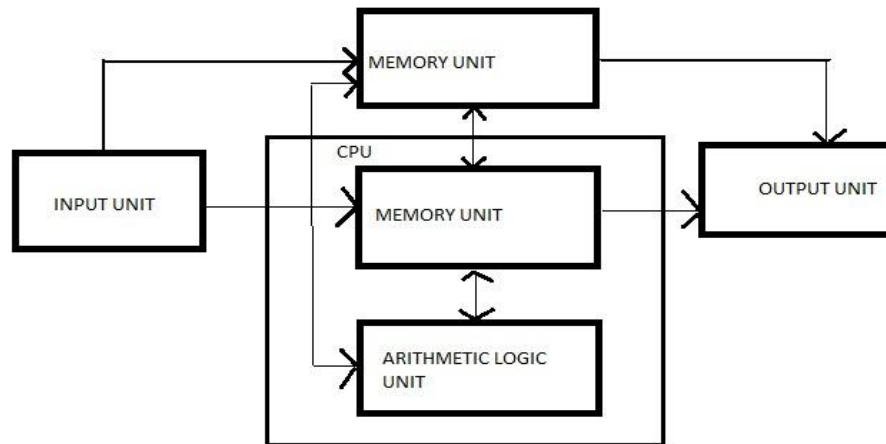9. Miscellaneous (Latest in Computers and Mobile Technology)

Distribution Of Marks In IBPS Exams		
1.	Fundamentals	
2.	MS-Office	
3.	Full Forms/Abbreviations	16-17 Marks
4.	Important Terms	
5.	Shortcut Keys	
6.	Internet	
7.	Networking	3-4 Marks
8.	DBMS	
9.	Programming Languages	
10.	Miscellaneous	

COMPUTER FUNDAMENTALS

❖ A **Computer** is a general purpose device that can be programmed to carry out a set of arithmetic or logical operations automatically. Since a sequence of operations can be readily changed, the computer can solve more than one kind of problem.

❖ A general purpose computer has four main components: the arithmetic logic unit (ALU), the control unit, the memory, and the input and output devices (collectively termed I/O).

❖ The data that is fed into a computer processor received into the computer by a keyboard or other sources is called **Input.**

❖ A computer is an electronic device that accepts data from the user (input), processes the data by performing calculations and operations on it and generates the desired **Output.**

❖ The device which is used with a computer to display or store data is called **Peripherals.**

❖ The mechanical, magnetic, electronic and electrical components that comprises a computer system such as the Central Processing Unit (CPU), monitor, keyboard, etc. is known as **Hardware.**

❖ A set of instructions that tells the computer about the tasks to be performed and how these tasks are to performed, is known as **Software.**

❖ An unprocessed collection or representation of raw facts represented in a manner suitable for communication, interpretation or processing by humans or by automatic means, is known as **Data.**

- ❖ The result of processing, manipulating and organising data in a way that adds to the knowledge of the person receiving it, is known as **Information.**
- ❖ The smallest unit of information, a computer can understand and process, is known as **Bit.**
- ❖ The primary goal of computer is to process information that it receives and output the results. The process of control and alter information is known as **Processing.**
- ❖ The number system computer used to store data and perform calculation - **Binary Number System.**
- ❖ Computer Speed, Accuracy, Diligence, Storage Capability, Automation, Remembrance Power and Versatility are the main **Characteristics of Computer.**
- ❖ Self Intelligence, Decision-Making power, Learning power, Self care, Feelings are the **Limitations of Computer.**
- ❖ A **mainframe computer** is a much larger computer that typically fills a room and may cost many hundreds or thousands of times as much as a personal computer. They are designed to perform large numbers of calculations for governments and large enterprises.
- ❖ **Read-only memory (ROM)** is a storage medium used in computers and other electronic devices. Data stored in ROM can only be modified slowly or with difficulty, or not at all.
- ❖ ROM is non-volatile and the contents are retained even after the power is switched off.
- ❖ It only allows reading.
- ❖ The types of ROM include PROM, EPROM and EEPROM.
- ❖ **Random Access Memory (RAM),**allows the computer to store data for immediate for immediate manipulation and to keep track of what is currently being processed.
- ❖ RAM is referred to as volatile memory and is lost when the power is turned off.
- ❖ It allows reading and writing.
- ❖ The two main types of RAM are static RAM and dynamic RAM.
- ❖ **SRAM** retains data as long as power is provided to the memory chip and need not be refreshed periodically. SRAM stands for **Static Random Access Memory.**

- ❖ The data on **DRAM** continues to move in and out of the memory as long as power is available and must be continually refreshed to maintain the data. DRAM stands for **Dynamic Random Access Memory.**

- ❖ **Primary memory** is computer memory that a processor or computer accesses first or directly.
- ❖ For example: RAM, and Cache Memory.
- ❖ **Secondary memory (or secondary storage)** is the slowest and cheapest form of memory. It cannot be processed directly by the CPU.
- ❖ Secondary memory devices include magnetic disks like hard drives and floppy disks, optical disks such as CDs and CDROMs, and magnetic tapes, which were the first forms of secondary memory.
- ❖ **Virtual memory** is memory on the hard disk that the CPU uses as an extended RAM.
- ❖ **Installation** is the process of copying software programs from secondary storage media to the hard disk.
- ❖ A central computer that holds collections of data and programs for many PCs, workstations and other computers is a **Server.**

- ❖ An **Arithmetic Logic Unit (ALU)** is a digital circuit that performs integer arithmetic and logical operations. The ALU is a fundamental building block of the central processing unit of a computer.
- ❖ **Control Unit** is responsible for controlling the overall operations of computer. It coordinates the sequence of execution of instructions and controls the overall functioning of the computer.
- ❖ The first computer architecture was introduced by **John Von Neumann (1970)**
- ❖ Personal computers use a number of chips mounted on a main circuit board called **Motherboard.**
- ❖ The CPU is fabricated as a single Integrated Circuit (IC) chip. It is also known as the **Microprocessor.**
- ❖ **Multiprocessing** is the use of two or more central processing units (CPUs) within a single computer system. The term also refers to the ability of a system to support more than one processor and/or the ability to allocate tasks between them.
- ❖ The organization and interconnection of the various components of a computer system is known as **Computer Architecture.**
- ❖ A CPU can directly understand the **Machine Language.**
- ❖ An **input device** is any peripheral (piece of computer hardware equipment) used to provide data and control signals to a computer. They are the devices that feed data into a computer.
- ❖ Examples of input devices include keyboards, mouse, scanners, digital cameras and joysticks.
- ❖ The keys include the letter keys (0, 1, 2, ..., 9; A, B, Z), which are generally laid out in the same style as in typewriters are known as **Alphanumeric Keys.**
- ❖ 'Caps lock' and 'Num lock' keys are called as **Toggle Keys** because when pressed, they change their status from one state to another.
- ❖ **Numeric Keypad** is a keypad located on the right hand side of the keyboard. It consists of digits and mathematical operators.
- ❖ A **Modifier key** is a special key (or combination) on a computer keyboard that temporarily modifies the normal action of another key when pressed together. By themselves, modifier keys usually do nothing; that is, pressing any of the Shift, Alt, or Ctrl keys alone does not (generally) trigger any action from the computer.
- ❖ A **Mouse** is the most popular input device which is used today for interactive processing and for the one line entry of data for batch processing.
- ❖ **Drag and Drop** refers to the action of clicking and holding down the mouse button, while moving the mouse and then releasing the mouse button.
- ❖ The first computer mouse was invented by **Douglas Engelbart.**
- ❖ **Joystick** is the device that moves in all directions and controls the movement of a pointer.
- ❖ A **Touch Screen** is a type of display screen device that is placed on the computer monitor to allow direct selection or activation of the computer when the user touches the screen.
- ❖ **Light Pen** is the pen shaped device, which can sense light and is used to point at spots on a video screen.
- ❖ A technology enables a high-speed reading of large quantities of data and transferring these data to the computer without using a keyboard. It is referred as **Optical Mark Reader (OMR).**
- ❖ It uses a beam of light that is reflected on the paper with marks, to capture presence and absence of marks.
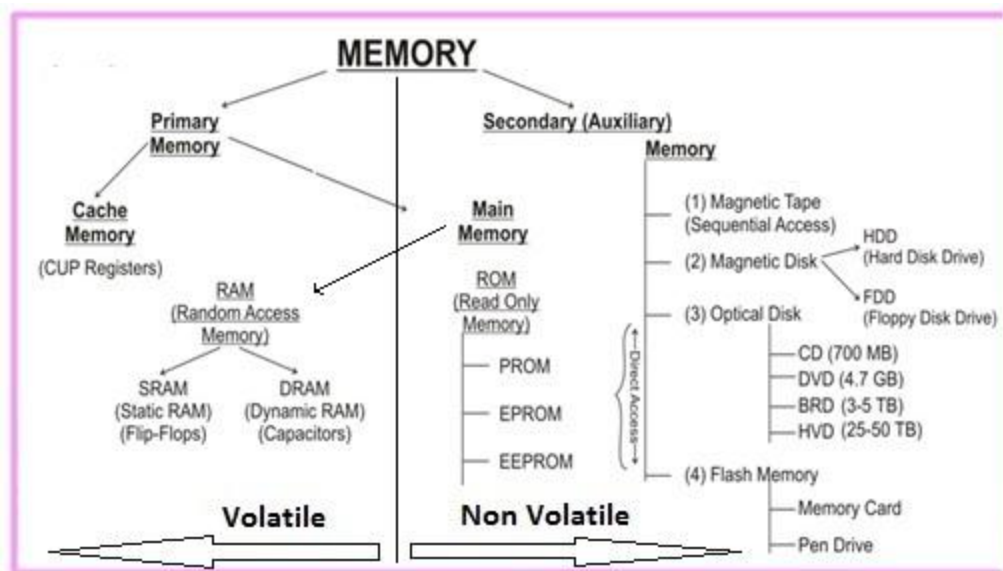- ❖ MICR reads the characters by examining their shapes in a matrix form and the information is then passed

`on to the computer. **MICR** stands for **Magnetic Ink Character Reader.**

❖ It provides a high level of security and is therefore used by the banking industry for faster processing of the cheques

❖ It is a machine readable code, which is represented by parallel vertical lines with varying widths. For reading these bar-coded data, a device is used, which is known as a **Bar Code Reader (BCR)**

❖ **Optical Character Recognition (OCR)** is used to scan the document containing text.

❖ It is the mechanical or electronic conversion of scanned or photographed images of typewritten or printed text into machine-encoded/computer-readable text.

❖ A **keyboard** is a typewriter-style device, which uses an arrangement of buttons or keys, to act as mechanical levers or electronic switches.

❖ Most of the commonly available personal computers have a keyboard, popularly known as **Qwerty**.

❖ The keys labeled Fl to F12 on the keyboard are called **Function Keys.**

❖ An **output device** is any piece of computer hardware equipment used to communicate the results of data processing carried out by an information processing system (such as a computer) which converts the electronically generated information into human-readable form

❖ The printed form of output is referred as **Hard Copy**.

❖ The form of output displayed on the screen is referred as **Soft Copy.**

❖ The device that prints information from the computer onto the paper is **Printer.**

❖ **Pages Per Minute (PPM)** is the unit used to count the speed of the printer.

❖ On the basis of technology, printers are categorized into **Impact and Non- Impact Printers.**

❖ **Impact printers** create an image by using some mechanism to physically press an inked ribbon against the page, causing the ink to be deposited on the page in the shape desired.

❖ **Examples of Impact Printers are** Character Printers and Dot Matrix Printers.

❖ **Non – Impact Printers** do not touch the paper when creating an image.

❖ **Examples of Non - Impact Printers are** Inkjet printers, Laser printers, Solid ink printers, Dye-sublimation, Thermal wax printers, Thermal auto chrome printers.

❖ A pen based output device, attached to a computer for making vector graphics, that is, images created by a series of many straight lines is known as **Plotters.**

❖ The number of pixels displayed on a screen is known as **Resolution.**

❖ A **Monitor** is a TV-like display attached to the computer on which the output can be displayed and viewed. It can either be a monochrome display or a colour display.

❖ The set of instructions, which control the sequence of operations, are known as **Program.** Itis a sequence of instructions, written to perform a specified task with a computer.

❖ A **Software** instructs the computer what to do and how to do it. It is a set of instructions that tells the computer about the tasks to be performed and how these tasks are to performed.

❖ One or more defects or problems that prevent the software from working as intended of working at all are called **Bug.**

❖ Software that contributes to the control and performance of the computer system and permits the user to use the system more conveniently is termed as **System Software.**

❖ **Antivirus Software** is used to scan the hard disk to remove the virus from them.

❖ The assembly language program is translated into machine code by a separate program known as an **Assembler.**

❖ A **Backup,** or the process of backing up, refers to the copying and archiving of computer data so it may be used to restore the original after a data loss event. It contains a copy of every program data and system file on a computer.

❖ An **Operating System** controls the way in which the computer system functions and provides a means by which users can interact with the computer.

❖ Loading of the Operating System is known as **Booting.** Restarting a computerthat is already on, is referred to as **Warm Booting.**

❖ **Basic Input – Output System (BIOS)** is the part of operating system that manages the essential peripherals such as the keyboard, screen, disk drives and parallel and serial ports.

- An **Integrated Software** is a single application that combines major features of several types of application.
- An **Application Software** is the program that makes the computer useful to the users.
- **Computer hardware** is the collection of physical elements that constitutes a computer system.
- **Computer hardware** refers to the physical parts or components of a computer such as the monitor, mouse, keyboard, computer data storage, hard drive disk (HDD), system unit (graphic cards, sound cards, memory, motherboard and chips), etc. all of which are physical objects that can be touched.

- The **motherboard** is the main component of computer. It is a large rectangular board with integrated circuitry that connects the other parts of the computer including the CPU, the RAM, the disk drives(CD, DVD, hard disk, or any others) as well as any peripherals connected via the ports or the expansion slots.

- **Memory Units:**

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

≈ bit (b)
≈ Byte (B)
- The number system, the modern computers are operated - **Binary Number System(0's and 1's)**

- Name the most significant bit, which represent 1 and 0 for a positive number and negative number, respectively - **Sign Bit**
- Which coding scheme represents data in a binary form in the computer system? ASCII, EBCDIC and Unicode are the most commonly used codes under this scheme - **Binary Coding Scheme**
- **EBCDIC** is a 8-Bit code with 256 different representations of characters. It is mainly used in mainframe computers.
- **EBCDIC** stands for - **Extended Binary Coded Decimal Interchange Code**
- **BCD** is a method that represents the decimal digits with the help of binary digits. It takes advantage that one decimal numeral can be represented by 4-bit pattern. **BCD** stands for **Binary Coded Decimal**
- This coding system is used to represent the interval storage area of the computers. In this system, every character is represented by a combination of bits. **Binary Coding System**

- The Base or Radix of the decimal number system is **10**
- The standard code the computer industry created to represent characters - **American Standard Code for Information Interchange (ASCII)**
    - **ASCII** is a code used for standardizing the storage and transfer of information amongst various computing devices.
- It is required for representing more than **64** characters. At present, the mostly used coding systems are **ASCII and EBCDIC**
- The code is also known as Reflected Code - **Gray Code**

Number System

Decimal, Binary, Octal and Hexadecimal Equivalents			
Decimal	Binary	Octal	Hexadecimal
0	0000	000	0
1	0001	001	1
2	0010	002	2
3	0011	003	3
4	0100	004	4
5	0101	005	5
6	0110	006	6
7	0111	007	7
8	1000	010	8
9	1001	011	9
10	1010	012	A
11	1011	013	B
12	1100	014	C
13	1101	015	D
14	1110	016	E
15	1111	017	F

MICROSOFT OFFICE

- **Microsoft Office** is an office suite of desktop applications, servers and services for the Microsoft Windows and OS X operating systems. It was first announced by **Bill Gates of Microsoft** on August 1, 1988 at COMDEX in Las Vegas.
- MS office primarily includes Word, Excel, PowerPoint, Access and Outlook. It also includes OneNote, Groove, InfoPath and Publisher.

MS WORD
- Microsoft Word is a word processor developed by Microsoft.
- It is used for creating, editing, formatting, storing, retrieving and printing of a text document.
- Microsoft Word's native file formats are denoted either by a **.doc** or **.docx** file extension.

- A **Cursor** is an indicator used to show the position on a computer monitor or other display device that will respond to input from a text input or pointing device.

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

- To create a document, we use **New command** at the menu.
- **Save as** is used to save a document for the first time. It is also used to change the destination of the saved file in the computer.
- **Print Preview** is used to see the document before the printout is taken.
- **Cut and Paste** options are used to move the data from one part of the document to another.

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

❖ **Portrait and Landscape** options are available in **Orientation** category of Page Setup.
❖ **Alignment** refers to the position of text between the margins.
❖ **Auto complete** is a feature in word that automatically completes the spelling of days of the week and months of the year that have more than five letters in their names.

Function Keys	
F1	Get help or visit Microsoft office Online.
F2	Move text or graphic.
F4	Repeat the last action
F5	Choose the Go To command (Home tab).
F6	Go to the nest pane or frame.
F7	Choose the spelling command (Review tab)
F8	Extend a selection
F9	Update the selected fields
F10	Show key tips
F11	Go to the nest field
F12	Choose the Save As command (Microsoft Office Button).

❖ **Header and Footer** option is used to display information such as title and page number of the document.
❖ The bar at the top of the window that bears the name of the window, is known as **Title Bar.**
❖ A screen element of MS Word that is usually located below the title bar that provides categorisedoption, is called **Menu Bar.**
❖ **Auto Correct** in word automatically corrects certain spelling, typing, capitalisation or grammar errors.
❖ **Thesaurus** is used for finding a synonym for a word in the document.

❖ Word has extensive lists of **bullets and numbering** features used for tables, lists, pages, chapters, headers, footnotes, and tables of content.

MS EXCEL

❖ **Microsoft Excel** is a spreadsheet application developed by Microsoft for Microsoft Windows and Mac OS.
❖ It features calculation, graphing tools, pivot tables, and a macro programming language called Visual Basic for Applications.
❖ The intersection of a row and column is called a **Cell.**
❖ The cell in which we are currently working is known as **Active Cell.**
❖ Microsoft Excel's native file formats are denoted either by a .xls or .xlsx file extension.
❖ A Worksheet is made of columns and rows, wherein columns run **Vertically** and rows run **Horizontally.**
❖ Up to Excel 2003, the standard amount of columns has been 256 and 65,536 rows.
❖ Excel 2007 onwards, the maximum number of rows per worksheet increased to 1,048,576 and the number of columns increased to 16,384.
❖ Microsoft Excel has the basic features of all spreadsheets, using a grid of cells arranged in numbered rows and letter-named columns to organize data manipulations like arithmetic operations
❖ The letter and number of the intersecting column and row is the **Cell Address.**
❖ Short cut key to insert a new worksheet in MS-Excel is **ALT + Shift + F1 +** or **F11.**
❖ **Sheet tab** is the tab at the bottom of the worksheet window that displays the name of the worksheet.
❖ A Microsoft office document that contains one or more worksheets is known as a **Workbook.**

Shortcut Keys of MS-Excel

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

Important Questions Based on Microsoft Word:

1. Pressing F8 key for three times selects
A) A word
B) A sentence
C) A paragraph
D) Entire document

2. What happens if you press Ctrl + Shift + F8?
A) It activates extended selection
B) It activates the rectangular selection
C) It selects the paragraph on which the insertion line is.
D) None of above

3. How can you disable extended selection mode?
A) Press F8 again to disable
B) Press Del to disable
C) Press Esc to disable
D) Press Enter to disable

4. What does EXT indicator on status bar of MS Word indicate?
A) It indicates whether the external text is pasted on document or not
B) It indicates whether extended add-ons are installed on MS Word or not
C) It indicates whether Extended Selection mode is turned on or off
D) None of above

5. What is the maximum number of lines you can set for a drop cap?
A) 3   *B) 10*   C) 15   D) 20

6. What is the default number of lines to drop for drop cap?
A) 3   B) 10   C) 15   D) 20

7. What is the shortcut key you can press to create a copyright symbol?
A) Alt+Ctrl+C   B) Alt + C
C) Ctrl + C   D) Ctrl + Shift + C

8. How many columns can you insert in a word document in maximum?
A) 35   *B) 45*   C) 55   D) 65

9. What is the smallest and largest font size available in Font Size tool on formatting toolbar?
A) 8 and 72   B) 8 and 64
C) 12 and 72   D) None of above

10. What is the maximum font size you can apply for any character?
A) 163   *B) 1638*
C) 16038   D) None of above

11. Which of the following is graphics solution for Word Processors?
A) Clipart   B) WordArt
C) Drop Cap   D) All of above

12. The keystrokes Ctrl + I is used to
A) Increase font size
B) Inserts a line break

C) Indicate the text should be bold
D) Applies italic format to selected text

13. A character that is raised and smaller above the baseline is known as
A) Outlined   B) Raised
C) Superscript   D) Subscript

14. What is the purpose of inserting header and footer in document?
A) To enhance the overall appearance of the document
B) To mark the starting and ending of page
C) To make large document more readable
D) To allow page headers and footers appear on document when printed

15. Which of the following function key activates the speller?
A) F5   *B) F7*
C) F9   D) Shift + F7

16. The minimum number of rows and columns in MS Word document is
A) 1 and 1   B) 2 and 1
C) 2 and 2   D) None of above

17. Thesaurus tool in MS Word is used for
A) Spelling suggestions   B) Grammar options
C) Synonyms and Antonyms words
D) All of above

18. Why Drop Caps are used in document?
A) To drop all the capital letters
B) To automatically begin each paragraph with capital letter
C) To begin a paragraph with a large dropped initial capital letter
D) None of above

19. A bookmark is an item or location in document that you identify as a name for future reference. Which of the following task is accomplished by using bookmarks?
A) To add anchors in web page
B) To mark the ending of a paragraph of document
C) To quickly jump to specific location in document
D) To add hyperlinks in webpage

20. A word processor would most likely be used to do
A) Keep an account of money spent

B) Do a computer search in media center
C) Maintain an inventory
D) Type a biography

21. Which of the following is not valid version of MS Office?
A) Office XP   *B) Office Vista*
C) Office 2007   D) None of above

22. You cannot close MS Word application by
A) Choosing File menu then Exit submenu
B) Press Alt+F4
C) Click X button on title bar
D) From File menu choose Close submenu

23. The key F12 opens a
A) Save As dialog box   B) Open dialog box
C) Save dialog box   D) Close dialog box

24. What is the short cut key to open the Open dialog box?
A) F12   B) Shift F12
C) Alt + F12   *D) Ctrl + F12*

25. A feature of MS Word that saves the document automatically after certain interval is available on
A) Save tab on Options dialog box
B) Save As dialog box
C) Both of above   D) None of above

26. Where can you find the horizontal split bar on MS Word screen?
A) On the left of horizontal scroll bar
B) On the right of horizontal scroll bar
C) On the top of vertical scroll bar

D) On the bottom of vertical scroll bar

27. Which of the following is not available on the Ruler of MS Word screen?
A) Tab stop box   B) Left Indent
C) Right Indent   *D) Center Indent*
E) All of them are available on ruler

28. What is place to the left of horizontal scroll bar?
A) Tab stop buttons   *B) View buttons*
C) Split buttons   D) Indicators
E) None of above

29. Which file starts MS Word?
A) Winword.exe   B) Word.exe
C) Msword.exe   D) Word2003.exe

30. How many ways you can save a document?
A) 3   B) 4   C) 5   D) 6

31. If you want to keep track of different editions of a document which features will you use?
A) Editions   *B) Versions*
C) Track Change   D) All of above

32. Background color or effects applied on a document is not visible in
A) Web layout view   B) Print Layout view
C) Reading View   *D) Print Preview*

33. What is a portion of a document in which you set certain page formatting options?
A) Page   B) Document
C) Section   D) Page Setup

34. Borders can be applied to
A) Cells   B) Paragraph
C) Text   *D) All of above*

35. Which of the following is not a type of page margin?
A) Left   B) Right
C) Center   D) Top

36. What is the default left margin in Word 2003 document?
A) 1"   *B) 1.25"*   C) 1.5" D) 2"

37. What is gutter margin?
A) Margin that is added to the left margin when printing

B) Margin that is added to right margin when printing
C) Margin that is added to the binding side of page when printing
D) Margin that is added to the outside of the page when printing

38. Portrait and Landscape are
A) Page Orientation   B) Paper Size
C) Page Layout   D) All of above

39. If you need to change the typeface of a document, which menu will you choose?
A) Edit   B) View
C) Format   D) Tools

40. Which of the following is not a font style?
A) Bold   B) Italics
C) Regular   *D) Superscript*

41. What happens when you click on Insert >> Picture >> Clip Art
A) It inserts a clipart picture into document
B) It lets you choose clipart to insert into document
C) It opens Clip Art taskbar
D) None of above

42. Which option is not available in Insert Table Auto fit behavior?
A) Fixed Column Width   B) AutoFit to Contents
C) Autofit to Window   *D) Autofit to Column*

43. To autofit the width of column
A) Double click the right border of column
B) Double click the left border of column
C) Double click the column header
D) All of above

44. From which menu you can insert Header and Footer?
A) Insert Menu   *B) View Menu*
C) Format menu   D) Tools Menu

45. After typing header text, how can you quickly enter footer text?
A) Press PageDown key and type the text for footer
B) Click on Switch between Heder & Footer then type the text
C) Both of above   D) None of above

46. When inserting Page number in footer it appeared 1 but you wish to show a. How can you do that?
A) From format menu choose bullets and Numbering and configure necessary setting
B) From Insert menu choose Page Number and specify necessary setting
C) Click on Page Number Format tool and specify required setting
D) All of above

47. Which of the following statement is false?
A) You can set different header footer for even and odd pages
B) You can set different page number formats for different sections
C) You can set different header footer for first page of a section
D) You can set different header and footer for last page of a section

48. Where can you change the vertical alignment?
A) Formatting toolbar
B) Paragraph dialog box
C) Page Setup dialog box   D) Standard toolbar

49. To get to the 'Symbol' dialog box, click on the _____ menu and choose 'Symbol'.
A) Insert   B) Format
C) Tools   D) Table

50. Which of the following symbol sets would be most likely to contain a mathematical symbol such as a degree sign, greater than or equal to, or a Greek letter?
A) Wingdings   B) Wingdings 3
C) Webdings   *D) Symbol*

51. When assigning a shortcut key to a symbol, you should always try to select a key or key combination that is:
A) unassigned
B) Located on the ten-key pad section of your keyboard.
C) Assigned to another task.
D) From the same font family as the symbol.

52. Suppose you wanted to create an AutoCorrect entry that would type the words 'We regret to inform you that your submission has been

declined' Of the following choices, which would be the best name you could assign to this entry?
A) Regret   *B) Subdual*
C) We regret to inform you that your submission has been declined
D) 11

53. If you want to convert a symbol or several lines of text into an AutoCorrect entry, you should:
A) Insert the symbol or type the text in a Word document first. Then, select the text or symbol and go to the AutoCorrect dialog box.
B) Click the Tools menu and choose AutoCorrect Options. Then, click the Insert menu and choose Symbol (or click the Format menu and choose Paragraph) to add the symbol or paragraph to AutoCorrect.
C) AutoCorrect can only accommodate one line of text. It is not possible to convert a symbol or multiple lines of text into an AutoCorrect entry.
D) Insert the symbol or type the text in a Word document first. Then, select the text or symbol and click the Edit menu followed by Paste Special. Select New AutoCorrect Entry and then click OK.

54. AutoCorrect was originally designed to replace _____ words as you type.
A) Short, repetitive   B) Grammatically incorrect
C) Misspelled   D) None of the above

55. Which of the following is the second step in creating a macro?
A) Start recording
B) Using your mouse or keyboard, perform the task you want to automate
C) Assign a keyboard shortcut to the macro
D) Give the macro a name

56. If you will be displaying or printing your document on another computer, you'll want to make sure and select the _____ option under the 'Save' tab.
A) Embed Fonts   *B) Embed True Type Fonts*
C) Save True Type Fonts D) Save Fonts

57. In Word, the mailing list is known as the _____.
A) Data sheet   B) Source
C) Data source   D) Sheet

58. Which of the following is not one of the three 'Mail Merge Helper' steps?
A) Merge the two files
B) Create the main document
C) Set the mailing list parameters
D) Create the data source

59. Which of the following button will allow you to add, delete, or change records in your Data Source?
A) 'Data Source' button   B) 'Edit' button
C) 'Edit Data Source' button
D) 'Data editing' button

60. It is possible to _____ a data source before performing a merge.
A) Create   B) Modify
C) Sort   *D) all of the above*

61. What is the default font size of a new Word document based on Normal template?
A) 10 pt   *B) 12 pt*
C) 14 pt   D) None of above

62. What is the default font used in MS Word document?
A) Times New Roman   B) Arial
C) Algerian   D) Preeti

63. Which tab in Font dialog box contains options to apply font effects?
A) Font tab   B) Character Spacing
C) Text Effects   D) Standard Toolbar

64. If you need to double underline a word, how will you do that?
A) Go to Format menu and then Font option. Open Underline Style and choose Double Underline
B) From Format menu choose Font option and then from Font tab open Underline Style and select Double Underline
C) Select the text then choose Format >> Font and on Font tab open Underline Style and choose Double Underline
D) Click double underline tool on formatting toolbar

65. DropCap means
A) All Caps   B) Small Caps
C) Title case   *D) None of above*

66. What is the short cut key to open Font dialog box?

A) Ctrl + F   B) Alt + Ctrl + F
C) Ctrl + D   D) Ctrl + Shift + D

67. How can you access the font size tool on formatting toolbar?
A) Ctrl + S   B) Ctrl + Shift + S
C) Ctrl + P   *D) Ctrl + Shift + P*

68. How can you make the selected character superscripted?
A) Ctrl + =   *B) Ctrl + Shift + =*
C) Alt + Ctrl + Shift + =   D) None of above

69. What does Ctrl + = key effect?
A) Superscript   *B) Subscript*
C) All Caps   D) Shadow

70. What happens if you mark on Hidden check box of Font dialog box after you select some text?
A) The text is deleted from document and you need to bring from Recycle Bin if required again.
B) The text is hidden and you need to bring it by removing the check box if needed again
C) The text is deleted and cannot be returned back
D) The text is hidden and cannot be returned back

71. How can you increase the font size of selected text by one point every time?
A) By pressing Ctrl +]   B) By pressing Ctrl + [
C) By pressing Ctrl + }   D) By pressing Ctrl + {

72. Which of the following line spacing is invalid?
A) Single   B) Double
C) Triple   D) Multiple

73. How can you apply exactly the same formatting you did to another text?

A) Copy the text and paste in new location. Then type the new text again.
B) Copy the text and click on Paste Special tool on new place
C) Select the text then click on Format Painter and select the new text
D) All of above

74. What should you do if you require pasting the same format in many places?
A) Click the Format painter and go on pasting in many places holding Alt Key
B) Double click the format painter then go on pasting in many places
C) Click the format painter then go on pasting to many places holding Ctrl Key
D) All of above

75. On which toolbar can you find Format Painter tool?
A) Standard toolbar   B) Formatting toolbar
C) Drawing Toolbar   D) Picture Toolbar

76. Which indent marker controls all the lines except first line?
A) First Line Indent Marker
B) Left Indent Marker
C) Hanging Indent Marker
D) Right Indent Marker

77. How can you remove tab stop markers from ruler?
A) Double click the tab marker and choose Clear All
B) Drag the tab stop marker out of the ruler
C) Right click the tab stop marker and choose remove
D) All of above

78. Which operation you will perform if you need to move a block of text?
A) Copy and Paste   *B) Cut and Paste*
C) Paste and Delete   D) Paste and Cut

79. What is the extension of Word files?
A) FIL   B) DOT
C) DOC   D) TXT

80. Which of the following option is not available in Insert >> Picture?
A) Chart   B) Word Art
C) Clip Art   *D) Graph*

INTERNET

❖ The **Internet** is a global system of interconnected computer networks that use the standard Internet protocol suite (TCP/IP) to link several billion devices worldwide.

❖ It is a **network of networks** that consists of millions of private, public, academic, business, and government networks, of local to global scope, that are linked by a broad array of electronic, wireless, and optical networking technologies.

❖ The **World Wide Web** (abbreviated as WWW or W3, commonly known as the Web) is a system of interlinked hypertext documents that are accessed via the Internet.

❖ A **Website,** is a set of related web pages served from a single web domain.

❖ A **Home page, index page,** or **main page** is a page on a website. A home page usually refers to:

  ● The initial or main web page of a website, sometimes called the "front page" (by analogy with newspapers).

- The first page that appears upon opening a web browser program, which is also sometimes called the start page. This 'start page' can be a website or it can be a page with various browser functions such as the visual display of websites that are often visited in the web browser.
- The web page or local file that automatically loads when a web browser starts or when the browser's "home" button is pressed; this is also called a "home page". The user can specify the URL of the page to be loaded, or alternatively choose e.g. to re-load the most recent web page browsed.
- A personal web page, for example at a web hosting service or a university web site, that typically is stored in the home directory of the user.

❖ A **Hyperlink** is a reference to data that the reader can directly follow either by clicking or by hovering or that is followed automatically
❖ A **web browser** (commonly referred to as a browser) is a software application for retrieving, presenting and traversing information resources on the World Wide Web.
❖ Some of the famous browsers are **Safari, Chrome, Firefox, Bolt, UC Browser** and **Internet Explorer**
❖ The **Uniform Resource Locator**, abbreviated as URL is a specific character string that constitutes a reference to a resource. In most web browsers, the URL of a web page is displayed on top inside an address bar.

   (i) **An example of a typical URL** would be "http://www.bankersadda.com".

❖ **Downloading** means to receive data to a local system from a remote system, or to initiate such a data transfer
❖ **Uploading** refers to the sending of data from a local system to a remote system such as a server or another client with the intent that the remote system should store a copy of the data being transferred
❖ An **Internet Protocol address** (also known as an **IP address**) is a numerical label assigned to each device (e.g., computer, printer) participating in a computer network. It acts as an identifier for a computer. It is a unique address for every computer.
❖ An **email attachment** is a computer file sent along with an email message. One or more files can be attached to any email message, and be sent along with it to the recipient.

❖ **Hotmail** was co - founded by an Indian American entrepreneur Sabeer Bhatia along with Jack Smith in July of 1996
❖ **CC(Carbon Copy**) in e – mail indicates those who are to receive a copy of a message addressed primarily to another. The list of CCed recipients is visible to all other recipients of the message.
❖ An additional **BCC (blind carbon copy)** field is available for hidden notification; recipients listed in the BCC field receive a copy of the message, but are not shown on any other recipient's copy (including other BCC recipients)
❖ The **Drafts folder** retains copies of messages that you have started but are not yet ready to send.
❖ The first email was sent by **Ray Tomlinson** to himself in 1971.

DATA COMMUNICATION & NETWORKING

❖ **Data Communication** deals with the transmission of digital data from one device to another. Data is transferred through a pathway called as communication channel which can be physical wire connecting the devices or may be unguided media like laser, microwave etc.
❖ A communication channel has a source or transmitter at one side and a designation or receiver at another side of the network. The source of data origination is single but there may be multiple receivers. A communication channel is of 3 types:
  - **Simplex:** In this, communication is unidirectional i.e. one of the two devices can transmit the data and the other can only receive the data. For eg. Radio broadcasting, television broadcasting etc.
  - **Half duplex:**In this communication is bidirectional. Either of the devices can act as transmitter or receiver but only one device can transmit the data at one time. For eg. Walkie talkie.
  - **Full Duplex:** Here also communication is in both directions and both the devices can simultaneously transmit the data. For eg. Telephone conversation.
❖ Different types of network are: **LAN, MAN** and **WAN**.
❖ A **LAN** (local area network) is a group of computers and network devices connected together, usually within the same building. By definition, the connections must be high speed and relatively inexpensive (e.g., token ring or Ethernet).
❖ A **MAN** (metropolitan area network) is a larger network that usually spans several buildings in the same city or town.
❖ A **WAN** (wide area network), in comparison to a MAN, is not restricted to a geographical location,

although it might be confined within the bounds of a state or country. A WAN connects several LANs, and may be limited to an enterprise (a corporation or an organization) or accessible to the public. The technology is high speed and relatively expensive. The Internet is an example of a worldwide public WAN.

Networking Devices

- ❖ **Modem:** Modem stands for Modulator-Demodulator. It is used to connect computers for communication via telephone lines.
- ❖ **Hub:** It works at the **Physical layer**. It just acts like a connector of several computers i.e. simply connects all the devices on its ports together. It broadcasts all the data packets arriving at it with no filtering capacity.
- ❖ **Switch:** It works at the **Data Link Layer.** It is used for dividing a network into segments called subnets. It provides filtering of data packets and prevents network traffic also.
- ❖ **Repeater:** It operates at the **Physical Layer.** It is used to amplify a signal that has lost its original strength so as to enable them to travel long distances. It can only join the networks that transmit similar data packets. It does not have filtering capacity i.e. all data including noise is amplified and passed on in the network so don't help in reducing network traffic.
- ❖ **Router:** It works at the **Network Layer** and is used to connect different networks that have different architectures and protocols. It sends the data packets to desired destination by choosing the best path available thus reducing network traffic. It routes the data packets using the routing table that contains all the Information regarding all known network addresses, possible paths and cost of transmission over them. Availability of path and cost of transmission decide sending of data over that path. It is of 2 types: static (manual configuration of routing table is needed) and dynamic (automatically discovers paths).
- ❖ **Gateway:** It operates in **all the layers of the network architecture**. It can be used to connect two different networks having different architectures, environment and even models. It converts the data packets in form that is suitable to the destination application. The two different networks may differ in types of communication protocols they use, language, data formats etc.
- ❖ **Bridge:** They are used two connect two LANs with the same standard but using different types of cables. It provides an intelligent connection by allowing only desired messages to cross the

- ❖ bridge thus improving performance. It uses physical addresses of the packets for this decision. It works on **Data Link Layer** of the OSI model. A bridge uses Spanning tree Algorithm for data transmission so as to avoid loops in the network.
- ❖ **IPv4 -** 32 bits
- ❖ **IPv6 -** 128 bits

INFORMATION SECURITY

- ❖ A **Computer Virus** is a computer program or code that can replicate itself and spread from one computer system to another system. A computer virus has the capacity to corrupt or to delete data on your computer and it can utilize an e-mail program to spread the virus to other computer systems. In the worst case scenario, it can even delete everything on your hard disk. The purpose of it is to disrupt the operation of the computer or the program.
- ❖ Some examples of Computer Virus are **Trojan viruses. stealth viruses, worms, malware (malicious software), Disk Killer, Stone virus, Sunday, Cascade, Nuclear, Word Concept, etc.**
- ❖ **Malware**, short for **malicious software**, is any software used to disrupt computer operation, gather sensitive information, or gain access to private computer systems. It can appear in the form of executable code, scripts, active content, and other software.
- ❖ **Antivirus Software** is used to scan the hard disk to remove the virus from them. Some of the famous anti – viruses available are Avast!, Norton, Avira, Kaspersky, AVG, etc.
- ❖ A person who uses his or her expertise to gain access to other people's computers to get information illegally or do damage is a **Hacker.**

- ❖ **Authorization** is the function of specifying access rights to resources related to information security and computer security in general and to access control in particular. More formally, "to authorize" is to define an access policy.
- ❖ **Authentication** is the act of confirming the truth of an attribute of a single piece of data or entity. It might involve confirming the identity of a person by validating their identity documents, verifying the validity of a website with a digital certificate, tracing the age of an artifact by carbon dating, or ensuring that a product is what its packaging and labelling claim to be. In other words, Authentication often involves verifying the validity of at least one form of identification.
- ❖ **Phishing** is the attempt to acquire sensitive information such as usernames, passwords, and credit card details (and sometimes, indirectly, money) by masquerading as a trustworthy entity in an electronic communication.
- ❖ A **Spoofing attack** is a situation in which one person or program successfully represents oneself as another by falsifying data and thereby gaining an illegitimate advantage.
- ❖ The **Open Systems Interconnection** model **(OSI)** is a conceptual model that characterizes and standardizes the internal functions of a communication system by partitioning it into abstraction layers. The model is a product of the Open Systems Interconnection project at the **International Organization for Standardization (ISO).**
  Seven layers of OSI Model are:
  - Application Layer
  - Presentation Layer
  - Session Layer
  - Transport Layer
  - Network Layer
  - Data link Layer
  - Physical Layer
- ❖ **Network topology** is the arrangement of the various elements (links, nodes, etc.) of a computer network.There are two basic categories of network topologies:
- ≈ Physical topologies and logical topologies.
  Physical topology is the placement of the various components of a network, including device location and cable installation, while **logical topology** illustrates how data flows within a network, regardless of its physical design. Various types of topologies are:
  - ≈ Bus Topology
  - ≈ Star Topology
  - ≈ Ring Topology
  - ≈ Mesh Topology
  - ≈ Tree Topology
  - ≈ Hybrid Topology

LOGIC GATES

- ❖ A logic gate is an elementary building block of a digital circuit. Most logic gates have two inputs and one output. At any given moment, every terminal is in one of the two binary conditions low (0) or high (1)
- ❖ There are seven basic logic gates:
  - ≈ AND
  - ≈ OR
  - ≈ XOR
  - ≈ NOT
  - ≈ NAND
  - ≈ NOR
  - ≈ XNOR

Name	Graphic symbol	Algebraic function	Truth table

Basic Gates

Name	Graphic symbol	Algebraic function	Truth table
AND	x, y → F	$F = xy$	x y | F 0 0 | 0 0 1 | 0 1 0 | 0 1 1 | 1
OR	x, y → F	$F = x + y$	x y | F 0 0 | 0 0 1 | 1 1 0 | 1 1 1 | 1
Inverter	x → F	$F = x'$	x | F 0 | 1 1 | 0
Buffer	x → F	$F = x$	x | F 0 | 0 1 | 1

Universal Gates

Name	Graphic symbol	Algebraic function	Truth table
NAND	x, y → F	$F = (xy)'$	x y | F 0 0 | 1 0 1 | 1 1 0 | 1 1 1 | 0
NOR	x, y → F	$F = (x + y)'$	x y | F 0 0 | 1 0 1 | 0 1 0 | 0 1 1 | 0

Exclusive Gates

Name	Graphic symbol	Algebraic function	Truth table
Exclusive-OR (XOR)	x, y → F	$F = xy' + x'y$ $= x \oplus y$	x y | F 0 0 | 0 0 1 | 1 1 0 | 1 1 1 | 0
Exclusive-NOR or equivalence	x, y → F	$F = xy + x'y'$ $= x \odot y$	x y | F 0 0 | 1 0 1 | 0 1 0 | 0 1 1 | 1

DATABASE MANAGEMENT SYSTEM

- ❖ DBMS is the acronym of **D**ata **B**ase **M**anagement **S**ystem. DBMS is a collection of interrelated data and a set of programs to access this data in a convenient and efficient way. It controls the organization, storage, retrieval, security and integrity of data in a database.
- ❖ **Architecture of DBMS-**The generalized architecture of DBMS is called ANSI/ SPARC model. The architecture is divided into three levels:
- • **External view or user view/View Level-** It is the highest level of data abstraction. This includes only those portions of database of concern to a user or Application program. Each user has a different external view and it is described by means of a scheme called external schema.
- • **Conceptual view/Logical Level-** All the database entities and the relationship among them are included. One conceptual view represents the entire database called conceptual schema.
- • **Internal view/Physical Level-** It is the lowest level of abstraction, closest to the physical storage method. It describes how the data is stored, what is the structure of data storage and the method of accessing these data. It is represented by internal schema.
- ❖ **Data model:**A data model is a plan for building a database. The model represents data conceptually, the way the user sees it, rather than how computers

store it. Data models focus on required data elements and associations.

- Entity – Relationship Model
- Relational Model

❖ **Entity:** A thing (animate or inanimate) of independent physical or conceptual existence and distinguishable. In the University database context, an individual student, faculty member, a class room, a course are entities.

❖ **Attributes**

❖ Each entity is described by a set of attributes/properties.

Types of Attributes

≈ **Simple Attributes:** having atomic or indivisible values: Dept – a string Phone Number – an eight digit number.

≈ **Composite Attributes:** having several components in the value. Example: Qualification with components (Degree Name, Year, University Name)

≈ **Derived Attributes:** Attribute value is dependent on some other attribute. Example: Age depends on Date of Birth. So age is a derived attribute.

≈ **Single-valued:** having only one value rather than a set of values. For instance, Place of Birth-single string value.

≈ **Multi-valued:** having a set of values rather than a single value, for instance, Courses Enrolled attribute for student Email Address attribute for student Previous Degree attribute for student. Attributes can be: simple single-valued, simple multi-valued, composite single-valued or composite multi-valued.

FULL FORMS & ABBREVIATIONS

TCP	Transmission Control Protocol
FTP	File Transfer Protocol
TFTP	Trivial File Transfer Protocol
SFTP	Secure File Transfer Protocol
SMTP	Simple Mail Transfer Protocol
HTTP	Hyper Text Transfer Protocol
HTTPS	Hyper Text Transfer Protocol Secure
UDP	User Datagram Protocol
ARP	Address Resolution Protocol
Tel Net	Telecommunication Networking
POP3	Post Office Protocol Version3
BGP	Border Gateway Protocol
P2P	Point to Point Protocol

PPP	Peer to Peer Protocol
IP	Internet Protocol
SNMP	Simple Network Management Protocol
NTP	Network Time Protocol
SIP	Session Initiation Protocol
DHCP	Dynamic Host Configuration Protocol
VOIP	Voice Are Internet Protocol
IMAP4	Internet Message Access Protocol Version 4
RARP	Reverse Address Resolution Protocol
SSH	Secure Shell
MIME	Multipurpose Internet Mail Extension
SMIME	Secure Mime
ALGOL	Algorithmic Language
ANSI	American National Standard Institute
ATM	Asynchronous Transfer Mode
AS	Autonomous System
BASIC	Beginners All Purpose Symbolic Instruction Code
BIOS	Basic input Output System
BPS	Bit Per Second
DNS	Domain Name Server
EDI	Electronic Data Interchange
URL	Uniform Resource Locator
GIF	Graphics Interchange Format
ASCII	American Standard Code for Information Interchange
ASP	Active Sever Pages
BCC	Blind Carbon Copy
CAD	Computer Aided Design
CDMA	Code Durian Multiple Access
GSM	Global System for Mobile Communication
CMOS	Complementary Metal Oxide Semi Conductor
CMYK	Cyan Magenta Yellow Block
GPS	Global Positioning System
GUI	Graphical User Interface
HDMI	High Definition Multimedia Interface
GIGO	Garbage in Garbage Out
LIFO	Last In First Out
FIFO	First In First Out
PING	Pocket Internet Gopher
HDD	Hard Disc Drive
NIC	Network Interface Controller/Cord
HDTV	High Definition Television
ISP	Internet Service Provider
JPEG	Joint Picture Expert Group
LCD	Liquid Crystal Display
LED	Light Emitting Diode
TFT	Thin Film Transistor
CRT	Cathode Ray Tube
MIDI	Musical Instrument Digital Interface
MPEG	Moving Picture Expert Group

PDA	Personal Digital Assistants	HDD	Hard Disc Drive
PDF	Portable Document Format	FDD	Floppy Disc Drive
SQL	Structured Query Language	CD	Compact Disc
USB	Universal Serial Bus	DVD	Digital Video/Versatile Disc
VIRUS	Vital Information Resource Under Sieze	BRD	Blue Ray Disc
VOIP	Voice Over Internet Protocol	HVD	Holographic Versatile Disc
IVR	Interactive Voice Response		
WIFI	Wireless fidelity		
WIMAX	Worldwide Interoperability for Microwave Access		
ADSL	Asymmetric Digital Subscriber Line		
API	Application Program Interface		
ARP	Address Resolution Protocol		
RARP	Reverse ARP		
ICANN	Internet Corporation of Assign Names & Numbers		
DPI	Data Per Inch		
DSL	Digital Subscriber Line		
FAT	File Allocation Table		
MANET	Mobile Ad-Hoc Network		
MIPS	Million Instruction Per Second		
BIPS	Billion Instruction Per Second		
TIPS	Trillion Instruction Per Second		
NAT	Network Address Translation		
IEEE	Institute of Electrical and Electronic Engineer		
IMAP	Internet Message Access Protocol		
ISDN	Integrated Servers Digital Network		
ISO	International Standard Organization/International Org for Standardization		
DHTML	Dynamic Hyper Text Markup Language		
MAC	Media Access Control		
CAN	Campus Area Network		
PAN	Personal Area Network		
SAN	Storage Area Network		
CNM	Calculatory Network Mode		
IPV4	Internet Protocol Version 4		
IPV6	Internet Protocol Version 6		
DBMS	Data Base Management System		
MODEN	Modulator Demodulator		
RAM	Random Access Memory		
ROM	Read Only Memory		
SMPS	Switch Mode Power Supply		
OMR	Optical Mark Reader / Recognition		
OCR	Optical Character Reader / Recognition		
BCR	Bar Code Reader		
MICR	Magnetic Ink Character Reader / Recognition		
PCB	Printer Circuit Board		
SRAM	Static Ram		
DRAM	Dynamic Ram		
PROM	Programmable Rom		
EPROM	Electrically Prom		
EEPROM	Electrically Erasable Prom		

GLOSSARY

A

- **Access time -** The amount of time it takes for requested information to be delivered from disks and memory.
- **Antivirus software -** A program designed to look for and destroy viruses that may infect the memory of a computer or files stored on a computer.
- **Artificial intelligence (AI) -** Computer systems that attempt to imitate human processes for analyzing and solving problems.
- **Accumulator -** A local storage area called a Register, in which the result of an arithmetic or logic operation is formed.

B

- **BIT -** It is basic unit of computers. It has two values 1 & 0 only.
- **BYTE -** Combination of 8 Bits.
- **Basic Input Output System (BIOS) -** Also known as ROM BIOS. It provides a abstraction layer for the hardware, i.e., a consistent way for application programs and operating system to interact with input/output devices.
- **Bug -** A software bug is an error, flaw, failure, or fault in a computer program or system produces an incorrect or unexpected result.

- **Bus -** A pathway along which electronic signals travel between the components of a computer system.

C
- **Cookie -** A packet of information that travels between a browser and the web server.
- **Crash -** Your computer or application no longer works correctly and so you "loose" all the work you've done since the last time you saved.
- **Command -** An instruction that causes a program or computer to perform a function.
- **Cache -** It is a memory storage area that keeps frequent use data readily available to the computer so that the computer does not retrieve them from slow storage devices.
- **Clock Speed -** The speed of computer is measured in clock speed. High clock speed is synonymous with high processing capability. It is measured in Megahertz (MHz).
- **Column -** A vertical block of cells in a table or spreadsheet.

D
- **Delete -** To remove an item of data from a file or to remove a file from the disk.
- **Debugging -** Locating and eliminating defects in a program.
- **Desktop -** The electronic work area on a display screen.
- **Dots Per Inch (DPI) -** It is defined as the measure of the resolution of a printer and scanner, or monitor.
- **Domain Name** - A unique name that identifies a particular website and represents the name of the server where the web pages reside.

E
- **Edit -** To make certain changes in existing data.
- **Ethernet Card -** A network adapter that enables a computer to connect to an ethernet.

F
- **Fax -** A shortened form of the word facsimile. A copy of a document transmitted electronically from one machine to another.
- **File transfer protocol (FTP) -** A set of guidelines or standards that establish the format in which files can be transmitted from one computer to another.
- **Firewall -** A security system usually consisting of hardware and software that prevents unauthorized persons from accessing certain parts of a program, database, or network.

- **Flash Memory -** It is a type of non-volatile computer storage chip that can be electrically erased and reprogrammed. It was developed by EEPROM.

G
- **Gateway -** A machine that links two networks using different protocols.
- **Gigabyte -** A measurement of the storage capacity of a device. One gigabyte represents 1024 megabytes.
- **Google –** search engine on the web.
- **Gopher -** A protocol used for locating and transferring information on the internet. It is an internet search tool that allows users to access textual information.
- **GUI -** Graphical User Interface uses icons and menus to carry out commands such as opening files, delete files, move files etc..
- **Graphic Interchange Format (GIF) -** A simple file format for pictures and photographs, that are compressed so that they can be sent quickly.

H
- **Hard copy -** Text or graphics printed on paper; also called a printout.
- **Hard disk -** A rigid type of magnetic medium that can store large amounts of information.
- **Hyperlink -** An image or portion of text on a webpage which is linked to another webpage.
- **Hub -** A network device that connects multiple computers on a LAN so that they can communicate with another network and the internet.
- **Header -** Repetitive information that appears at the top (the head) of every page of a document.
- **Hypertext transfer protocol (HTTP) -** The protocol used on the World Wide Web that permits Web clients (Web browsers) to communicate with Web servers

I
- **Icons -** In a graphical user interface (GUI), a small, pictorial, on screen representation of an object, such as a document, program, folder or disk drive.
- **Instant messaging (IM) -** A chat program that lets people communicate over the Internet in real time.
- **Internet protocol (IP) address -** A unique set of numbers that identifies a computer over a network.
- **Internet service provider (ISP) -** An organization that provides access to the Internet for a fee.

- **Intranet -** A private network established by an organization for the exclusive use of its employees.

Firewalls prevent outsiders from gaining access to an organization's intranet

J

- **JPEG -** Joint Photographic Experts Group. A format for storing complex graphics in compressed form.
- **Justification -** Aligning lines of text at the left margin, the right margin, both margins, or the centre. Text aligned at both margins is considered fully justified.

K

- **Keyboard -** The device used to enter information into a computer.
- **Kilobyte -** A measurement of the storage capacity of a device. One kilobyte represents 1024 bytes.

L

- **LAN -** A local area network (LAN) is a computer network that interconnects computers within a limited area such as a home, school, computer laboratory, or office building, using network media.
- **Laptop computer -** A portable computer. Also known as a notebook computer.
- **Landscape Orientation –** The positioning of the page so that the information is printed across the long dimension of the page.
- **Liveware -** It is a term to describe the human system, opposed to hardware or software in a computer.

M

- **Macro virus -** A type of virus that attaches itself to documents or word processing templates.
- **Malware -** Software that disrupts normal computer functions or sends a user's personal data without the user's authorization.
- **Memory -** The part of a computer that stores information.
- **Memory Cell -** A circuit in memory that represents a single bit of information.
- **Mass Storage -** Storage systems that provide access to hundreds of billions of bytes of stored data. They are often referred to as Archival Storage because of

the very large volumes of historical or backup data they can store.

- **MIPS -** An acronym derived from millions of instructions per second. Used to measure the speed of a processor.
- **Morphing -** The transformation of one image into another image.
- **Mobile Commerce (m-Commerce) -** A form of e-commerce that has the ability to conduct monetary transactions via a mobile device such as a cell phone.
- **Mozilla -** a web browser and successor to Netscape Communicator.
- **Multitasking -** The ability of a computer to execute more than one program at a time.

N

- **NIBBLE -** Combination of four bits.
- **Network -** A system of interconnected computers. They are of three types i. e. LAN, MAN, WAN.
- **Network Interface Card (NIC) -** This is a part of the computer that allows it to talk to other computers via a network protocol like TCP/IP.
- **Node -** A computer which is attached to the network. Each node has its own address on the network so that it can be uniquely identified and can communicate with other nodes on the same or different network.

O

- **Offline -** Refers to the state in which a computer is temporarily or permanently unable to communicate with another computer.
- **Online -** Refers to the state in which a computer is ready to communicate with other computers.
- **Open source software -** Software that makes the underlying source code available to all users at no charge.
- **Operating system (OS) -** Software that manages the internal functions and controls the operations of a computer.

P

- **Palmtop computer -** A portable computer smaller than a notebook (or laptop) computer that fits on the palm of your hand. Also called a handheld computer.
- **Password -** A user's secret identification code, required to access stored material. A procedure intended to prevent information from being accessed by unauthorized persons.
- **Piracy -** The illegal copying of software or other creative works.
- **Peripherals -** A connectable device that has an auxiliary function outside the permanent system

configuration such as plotters, printers and graphic displays.

- **Phishing -** A type of computer fraud that tries to trick users into revealing their passwords and other confidential information.
- **Pixel -** A smallest picture element of a digital image. The smaller the pixels, the higher the resolution.
- **Port -** An electrical connection on the computer into which a cable can be plugged so that the computer can communicate with other devices such as printer or modem.
- **Protocol -** A set of rules and regulations that coordinates the exchange of information over the network.
- **Portrait orientation -** Positioning paper so that information is printed across the short dimension of the paper.

Q

- **Query -** An alternate pipe form of operating system, which handles data in the form of messages rather than bytes.
- **Qwerty -** It is one of the standard computer keyboard, with the character Q, W, E, R, T, Y on the top row of letters on the keyboard.

R

- **Response time -** The time a computer takes to execute a command.
- **Retrieve -** To call up information from memory or storage so that it can be processed in some way.
- **Record -** A collection of all the information pertaining to a particular subject.
- **Row -** A horizontal block of cells in a table or spreadsheet.
- **Resolution** - Measurement of the degree of sharpness of a displayed image. It is defined as number of pixels per square inch on a computer generated display.
- **Register -** A temporary storage unit for quick, direct accessibility of a small amount of data for processing.

S

- **Save As –** Give the file a name and/or store the file in a certain place.
- **Save -** Tell the computer to create a file on disk that has the information you've put into the document.
- **Scroll bar -** Allows you to move around through your document.
- **Shut down -** To quit all applications and turn off the computer.
- **Spam -** unwanted repetitious messages, such as unsolicited bulk e-mail.

- **Scanner -** An input device that can copy a printed page into a computer's memory, thus doing away with the need to type the copy.
- **Screen saver -** A program that changes the screen display while the user is away from the computer.
- **Server -** A computer that manages a shared resource and provides a set of shared user services to the clients.
- **Search Engine -** Software that searches, gathers and identifies information from a database based on an index, keywords or titles.
- **Spam -** Unwanted repetitious messages, such as unsolicited bulk e-mail.
- **Soft copy -** Information shown on the display screen.
- **Sort -** To arrange fields, records, or files in a predetermined sequence.
- **Surfing the Net -** Browsing through various Web sites on the Internet in search of interesting things.

T

- **Trash -** Place where you put files and folders that you want to delete or get rid of.
- **Topology -** The structure of the network, including physical connections such as wiring schemes and logical interactions between network devices.
- **Track -** A ring on a disk where data can be written.
- **Telnet -** A protocol for remote computing on the internet that allows a computer to act as a remote terminal on another machine, anywhere on the internet.
- **Touchpad -** The device on a laptop computer that takes the place of a mouse.
- **Touch screen technology -** The technology that permits a user to perform a function simply by touching the screen on an appropriate spot.

U

- **Uninterrupted Power Supply (UPS) -** A Battery powered backup system that provides enough electricity to a computer during a power outage so that a user can save files before shutting down the computer.
- **Universal Serial Bus (USB) -** A common standard for connecting multiple peripherals to a computer as needed.
- **Upload -** To transfer information from a client computer to a host computer.

V

- **Virus -** A piece of computer code designed as a prank or malicious act to spread from one computer to another by attaching itself to other programs.

W

- **WAP -** Wireless Application Protocol is a specification for a set of communication protocol used to allow wireless devices to access the internet and other utilities.
- **Web browser -** Software that permits a user with a click of a mouse to locate, display, and download text, video, audio, and graphics stored in a host computer on the Web.
  The most common Web browsers now in use are Internet Explorer, Google Chrome and Mozilla Firefox.
- **Web site -** One or more related pages created by an individual or an organization and posted on the World Wide Web.
- **Wi-Fi (Wireless fidelity) -** A process that permits high-speed wireless transmission of data.
- **Word processing -** The electronic process of creating, formatting, editing, proofreading, and printing documents.
- **Workstation -** A desktop computer that runs applications and serves as an access point in a local area network.

Z

- **Zombie -** A computer that has been hijacked by a cracker without the owner's knowledge and used to perform malicious tasks on the Internet.

Miscellaneous

- Blackberry 10 OS is the latest version of OS available for blackberry devices.
- Windows 10: Windows 10 launched globally on 29th July. This is the latest version of windows available for computers. It is yet to be released for Mobile.
- ANDROID 6.0 MARSHMALLOW : Latest version of the android software released
- Google Nexus 6 will be manufactured by Huawei
- Microsoft has officially released a beta version of its Cortana app for Android for anyone to download and install. Cortana has the ability to replace Google Now when the users press the Android home button on a handset. Windows versions of Cortana support the 'Hey Cortana' voice feature.
- iOS 8 is the latest version of the Apple phones Operating System (Next will be iOS 9)
- OS X Yosemite is the latest version of the Apple Mac Operating System (Next will be OS X El Capitan)

- List of some famous E-Commerce Website :
- Paytm (India's Largest mobile commerce platform. Paytm is an Indian e-commerce shopping website launched in 2010)
  - Amazon
  - Alibaba
  - Flipkart
  - Snapdeal
  - HomeShop18
  - Myntra
  - Jabong
- List of companies recently got the payment bank License
  - Tech Mahindra Ltd
  - Vodafone m-pesa Ltd
  - Reliance Industries Ltd
  - Fino PayTech Ltd
  - National Securities Depository Ltd
  - Aditya Birla Nuvo Ltd
  - Airtel M Commerce Services Ltd