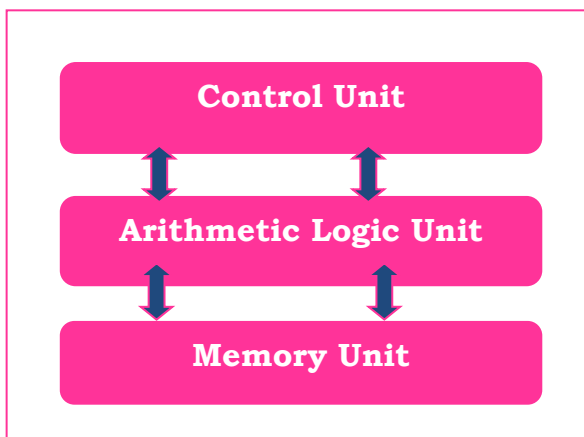


1

BASICS OF COMPUTER

COMPUTER: Computer is an electronic device which takes raw data (input) from the user and processes through set of instructions (called program) and gives the result (output).

- Computer can process both numerical and non-numerical (arithmetic and logical) calculations.
- Computer was invented by Charles Babbage.
- The brain of computer is called Central Processing Unit (CPU).
- Central Processing unit has 3 major parts: **Memory Unit, Control Unit and Arithmetic Logic Unit.**



MAJOR PARTS OF A COMPUTER: CPU, Key Board, Mouse, Monitor and Continuous power supply Unit.

- The external devices for computers are classified into 3 categories:

Input devices, output devices and peripheral devices.

INPUT DEVICES: Keyboard, Mouse, Light Pen, Optical Mark Reader, Optical Character reader, Microphone, Track Ball.



OUTPUT DEVICES: Monitor (CRT, LCD and LED), Printer (Laser printer, Ink-Jet Printer, Dot Matrix and Line printer), Plotter (Flat Bed and Drum) and Speakers.



ARITHMATIC LOGIC UNIT: ALU performs all arithmetic operation (addition, subtraction, multiplication, division etc.) and Logical operation (comparison, greater than, less than etc.).

CONTROL UNIT (CU): It is referred as control unit. CU performs all Major operations like input, output and processing.

MEMORY: It is classified into 2 categories. Primary memory and Secondary memory.

- Primary memory consists of RAM and ROM. Secondary memory includes devices like hard disk, CD, DVD, pen drive, Zip drive etc.

SOFTWARE: It is referred as set of programs. Software can be broadly classified as: System software and Application software.

- System software is mainly of two types: Operating systems and Utilities
- Application Software are General packages and customized packages

LANGUAGES: The computer language is used to write programs or any specific applications. Broadly the computer language can be classified into 3 categories: assembly language, machine language and high-level language.

- ✓ Machine language or machine code consists of binary code. It is directly understood by the computer.
- ✓ Both machine and assembly language are hardware specific.
- ✓ A high level language is a programming language that uses English & mathematical symbols as instruction.

COMPILER: It converts the high level programs into machine code. It scans the entire program at a time.

Programming languages like C, C++ & Java uses compilers.

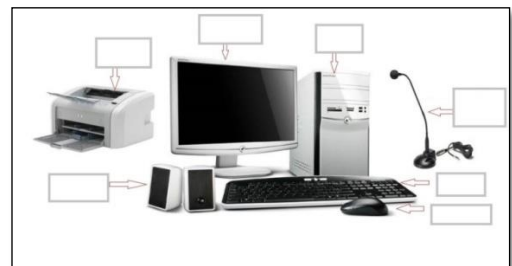
INTERPRETER: Interpreter also converts the high level program to machine level language. It interprets the program line by line. Interpreter takes less amount of time to analyse the source code. Programming languages like Python, JavaScript uses interpreters.

ASSEMBLER: Assembler is quite similar to compiler. It converts assembly language to machine code.

Difference	
High Level	Low Level
<ul style="list-style-type: none"> • Programmer-friendly language • Portable • Easy to understand • Easy to debug 	<ul style="list-style-type: none"> • Machine-friendly language • Non-portable • Difficult to understand • Difficult to debug

CHECK YOURSELF

1. Identify various parts and write the names in the blank boxes



2. Identify the followings



3. Which is not an output device?
- Key board
 - Monitor
 - Printer
 - Plotter
4. _____ is processed by the computer into information.
- Data
 - Processor
 - Input
 - Numbers
5. CRT stands for
- Cathode Ray Tube
 - Cosmos Ray Tube
 - Crystal Ray Tube
 - None of these
6. What is a software? Choose the right option.
- ANY part of the computer that has a physical structure
 - Clothing designed to be worn by computer users.
 - Flexible parts of a computer
 - Instructions that tell the hardware what to do
7. Which among the following uses compiler?
- C++
 - MS-Word
 - Adobe
 - Paint
8. The Computer's main circuit board is called _____
- Motherboard
 - Hard Drive
 - Bluetooth
 - Monitor
9. The CPU and the primary memory are located on the _____
- Output Device
 - Storage Device
 - Motherboard
 - Expansion board
10. A desktop computer is also known as _____
- PC
 - Laptop
 - Mainframe
 - Palmtop

STRETCH YOURSELF

- Briefly explain about various parts of computer.
- Write the difference between high level language and low level language.
- What is the different type of software?
- Explain the role of control unit in CPU.
- What is the use of assembler?

ANSWERS

Check Yourself

3. A
4. A
5. A
6. D
7. A
8. A
9. C
10. A

Stretch Yourself

1. Write about Input and Output devices

ACRONYMS

CPU: Central Processing Unit

MOUSE: Manually Operated User Selection Equipment

VDU: Visual Display Unit

LED: Light Emitting Diode

LCD: Liquid Crystal Display

CRT: Cathode Ray Tube

UPS: Uninterruptible Power Supply

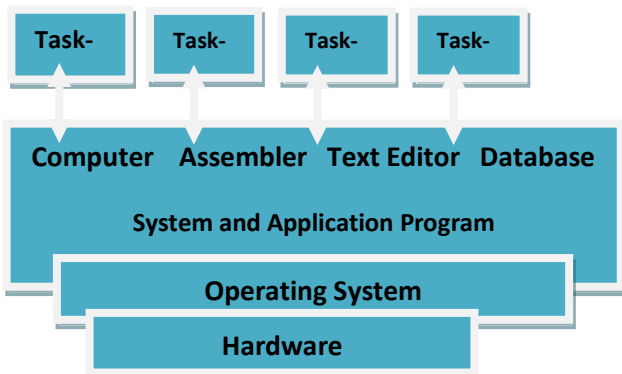
RAM: Random Access Memory

ROM: Read Only Memory

2

OPERATING SYSTEM

OPERATING SYSTEM: An operating system (OS) acts as a bridge between user and computer hardware. OS is a resource allocator and manages all resources.



- Windows is graphical operating system developed by Microsoft.
- Examples of Windows OS- windows 7, windows 8, windows XP and windows 10 etc.
- Icon is a small graphical representation of program or file.
- An icon (file/folder/application program) can be opened by double-clicking or right click on icon and select open option.

CREATION OF FOLDER:

- Click on Start → My Documents → File → New
- Then select Folder
- (Windows 7 Onwards) Right click on desktop, one pop-up menu appears.
- Select New → Folder option.

RENAME OF A FOLDER:

Click on Start → My Documents → click on the File or Folder to rename

(Windows 7 Onwards) Right click on File/Folder → Choose Rename option

DELETION OF A FOLDER:

- Start → My Documents → File or Folder to delete
- Under File → Delete option
- (Windows 7 onwards) Right click on File/Folder → Delete

TO MOVE A FILE: (Keeping a copy of the file in the Source)

- Select the file from the Source folder. Then right click on the mouse and select Copy (Ctrl+C) and go to the destination folder (where to keep).
- Then right click on the mouse, select Paste (Ctrl+V) option.

TO MOVE FILE: (Not keeping a copy of the file)

- Select the file from the Source folder. Then right click on the mouse and select Cut (**Ctrl+X**) and go to the destination folder (where to keep).
- Then right click on the mouse, select Paste (**Ctrl+V**) option.

TO RENAME FILE: Click on the File → Right click → Choose Rename option

TO OPEN AN APPLICATION PROGRAM (MS-PAINT, MS-WORD, MS-EXCEL):

- Click on Start → Select Programs → Choose Accessories
- Then Select Particular Program
- (Windows 7 onwards) Write program name in Search button and press Enter

TO LOCATE FILES/FOLDERS:

Click on Start button → Select Search option

CONTROL PANEL: It is a component of Windows OS that provides the ability to view and change system settings. Adding or removing hardware and software, controlling user accounts, changing accessibility and accessing network settings can be done through control panel.

MY COMPUTER displays the contents of hard disk, floppy disk, CD-ROM, Pen drive and network drives.

- Click on Start → Select My Computer
- It can be done by clicking on File Explorer seen on the Task bar.
- You can add update from Windows OS through control panel.

Start → Select Control panel → Select

Add or Remove Programs

CHECK YOURSELF

1. If the displayed system time and date are wrong, you can reset it using
 - A. Write
 - B. Calendar
 - C. Write file
 - D. Control panel
2. Which is not application software?
 - A. Windows NT
 - B. Page Maker
 - C. WinWord XP
 - D. Photoshop
3. Which of the following OS is not owned and licensed by any company?
 - A. Windows
 - B. Mac OS
 - C. Linux
 - D. Unix
4. In Windows OS these are small pictures that represents file, folders, Programs and other items. Each one is used to make the computer to do something:
 - A. Icon
 - B. Task Bar
 - C. Side Bar
 - D. None of these
5. Help menu is available at which button?
 - A. Turn- off
 - B. Restart
 - C. Start
 - D. End

STRETCH YOURSELF

1. Deepak wanted to rename a file as "Assignment". In hurry he renamed as "Attention". Then he deleted the file. Write the steps to restore the file and rename it.
2. Locate any two of the device drivers installed on your PC.
3. When a computer turned ON, who brings the OS into RAM.
4. Priya got a new system on her birthday. Priya and her brother Nikhil want to use the same system. So she wants to create a new user account for his brother Nikhil. Write the steps followed and specify the possible reasons why she created a new user account for Nikhil.
5. What do you mean by Booting?
6. Write steps to remove a program.

ANSWERS

Check Yourself

1. D
2. A
3. A
4. A
5. A

3

BASICS OF WORD PROCESSING

MS-WORD: It is an application component of MS-Office which is used to do document, brochure, invitation and book preparation. It enables us to prepare, modify, design and edit the desired documents. This application in MS-Office made our life easy in day to day documentation work.

TO OPEN MS-WORD 2007:

- Look for Ms-Word 2007 icon on your screen
- Double click on it.
- If your desktop does not have an icon, you can open Ms-Word by clicking on Start

Start → **All programs** → **Ms-Office** → **Ms-Word2007**

CURSOR: It is the line on your screen.

- The cursor shows you where you will start typing in a Word document.
- The cursor looks like this | and it flashes.
- When you are using the Tools in Microsoft Word your cursor will change to an arrow. This is called a POINTER.

MAKING A NEW DOCUMENT: A new document is like writing on a fresh piece of paper.

Click **Office button** → **New** option

Note:



Office button appears on the left most corner of the document

Or Press **Ctrl+N**

OPENING AN EXISTING DOCUMENT:

Click **Office** button → **Open** option

Or Press **Ctrl+O**

CLOSING THE DOCUMENT:

Click Office button → Close option.

A dialog box will be opened with “Yes”, “No” & “Cancel” button.

- To save document click” Yes”
- To save document click” No”
- To save document click” Cancel”

SAVING A NEW/EXISTING DOCUMENT:

Click Office button → Save As (For New document) or Save (For Existing document) Or Press **Ctrl+S**

TO INSERT PICTURES:

Click Insert → Select picture → From the File choose picture → Click Insert

TO RESIZE PICTURE:

Option 1:

- Double click on the picture
- Go to the Size section of the Format menu.
- Adjust the size of the picture in the document.

Option 2:

- Double click on the picture
- “Circles” will appear in the corners and “Squares” in the middle points of the picture
- Place the cursor over one corner of “Circles”
- The cursor will turn into a 2-way arrow shape.
- Move the cursor to the centre to decrease the size of the picture. (Do opposite to increase the size of the picture)
- Adjust the picture as desired

TO INSERT TABLE:

Click on **Insert** → Select **Table** (You can draw table by providing number of rows and columns).

WORKING WITH QUICK STYLES: Select Text → Select Home tab from Main menu → Choose Change styles

CREATING TABLE AND TABLE CONTENTS:

To create a Table of Contents it is required that each section of the document has a title formatted with a heading style.

Select References from main menu → Select table of contents

From drop down menu, click on any predefined styles to insert a Table → Insert table of contents

- A new window will appear.
- Select options for Page Numbers.
- Select the style for the Tab leaders.
- Select the format for the Table of Contents
- Select how many levels to show
- SELECT WHAT ITEMS TO DISPLAY

ADDING COMMENTS TO A DOCUMENT:

- Select Review from the Main menu → Select New Comment
- A red balloon will appear on a side menu
- Type the new comment

WORKING WITH DIFFERENT HEADERS:

To use these features, you should already know how to insert headers in a document.

DIFFERENT HEADER IN ODD AND EVEN PAGE:

Double click on the existing header → A new "Design" menu will appear → Select the option "Different Odd & Even Pages" → Type or create the new Header → Click on Close Header and Footer

COMPARING DOCUMENTS:

Select **Review** from Main menu → Click on **Compare**

A new window will open

In the Compare document window, locate Original and revised document → Insert a label to mark differences → Select elements to compare → Select where changes should be displayed.

PROTECTING DOCUMENT:

Option 1:

When the file is opened, Select Office button → Click Save As

Save As dialog box will be opened → Click on Tools → Click General Options

You will see 2 boxes as Password to open & Password to modify.

Provide password as per requirement.

Option 2:

Select **Review** from Main menu → Select **Protect document**

From the drop down menu → select

Restrict Formatting and Editing

A new side menu will appear. In Editing restrictions, select "Allow only this type of editing in the document."

In the drop down menu select No Changes (Read Only) → Click on "Yes, Start Enforcing Protection." → A new window will open → Type the new Password → click Ok

TO FIND A DOCUMENT:

Click Office button → Select Open option (Open dialog box will be opened)

Type the file name in Look in box

TO PRINT DOCUMENT:

Click on Office button → Select Print option Or **Ctrl+ P**

SHORT-CUT KEYS

Shortcut	Description
Ctrl+A	Select all contents of the page.
Ctrl+B	Bold highlighted selection.
Ctrl+C	Copy selected text.
Ctrl+D	Open the font preferences window.
Ctrl+E	Aligns the line or selected text to the centre of the screen.
Ctrl+F	Open find box.
Ctrl+I	Italic highlighted selection.
Ctrl+J	Aligns the selected text or line to justify the screen.
Ctrl+K	Insert a hyperlink.
Ctrl+L	Aligns the line or selected text to the left of the screen.
Ctrl+M	Indent the paragraph.
Ctrl+N	Opens new, blank document window.
Ctrl+O	Opens the dialog box or page for selecting a file to open.
Ctrl+P	Open the print window.

Shortcut	Description
Ctrl+R	Aligns the line or selected text to the right of the screen.
Ctrl+S	Save the open document. Like Shift+F12.
Alt+F, A	Save the document under a different file name.
Alt+X	Show the Unicode code of a highlighted character.
Ctrl+T	Create a hanging indent.
Ctrl+U	Underline the selected text.
Ctrl+V	Paste.
Ctrl+W	Close the currently open document.
Ctrl+X	Cut selected text.
Ctrl+Y	Redo the last action performed.
Ctrl+Z	Undo last action.

CHECK YOURSELF

1. Create a table with 10 columns and 12 rows
2. Which of the following is not an essential function of a word processing software package?
(A) Indexing (B) Saving
(C) Editing (D) Formatting
3. Create a document and make it password protected.

4. Write short key for print, Undo and Cut.
5. Insert picture of your choice and write about the picture.
6. Write Short key for Copy and Paste

STRETCH YOURSELF

1. Write names of 5 sense organs and save the file as "Organ".
2. Rename the file as Sense organ and save it on Desktop.
3. Create a folder named "Student" and inside the folder make a file named "Secondary"

ANSWERS

Check Yourself:

- 1: Create table by clicking on insert option
2. A
4. CTRL+P, CTRL+Z, CTRL+X
6. CTRL+C, CTRL+V

4

FORMATTING DOCUMENTS

FORMATTING: It refers to the arrangement of the content in an organized way.

- It addresses things like font selection, font size and presentation.
- Presentation of a document includes formatting like spacing, margins, font style, indentation and creation of lists.
- You can type text in text area. To change to separate paragraph press Enter.
- You can enter text in existing document also. Using arrows present in keyboard or with the help of mouse you can place cursor as per your requirement.
- **BEGINNING OF DOCUMENT:** Press Home (present on the keyboard)
- **END OF DOCUMENT:** Press End (present on the keyboard)
- **TOP OF DOCUMENT:** press Ctrl+Home
- **END OF DOCUMENT:** Press Ctrl+End
- Using spacebar, you can give space between two words.
- **TO HIGHLIGHT TEXT:**
 - ✓ **Whole word:** Double click within the word
 - ✓ **Whole Paragraph:** Triple click within the paragraph

✓ **Multiple words/lines/paragraphs:** Select the text by left clicking using mouse

Or

Hold **Shift** key along with the Arrow Keys (Top, Bottom, Left and Right)

- **ENTIRE DOCUMENT:**
Edit→Select All
Or Press Ctrl+A
- **DELETE TEXT:** You can use Backspace and Delete keys on the keyboard.
 - ✓ To replace words, select text→Click **Replace** from the toolbar
 - ✓ **Find and Replace** box will be opened.
 - ✓ **Find What:** Type the word you want to change
 - ✓ **Replace with:** Type the new word
- **FORMATTING TEXT:**
 - ✓ **Font Face:** It is the basic typeface of the text.

Select the type of font (from the drop down) of text you want to see like Arial, Times New Roman, Calibri etc.

✓ **Font Size:** It determines how large each letter will appear

Select size from the drop down (Value ranges from 8-72)

- ✓ **Font Style:** It determines the emphasis or weight of the letters. It can be Bold, Italicize or Underline.
- ✓ To make text bold- Select Text→Click on **B** appears on tool bar Or Select text→ Ctrl+B
- ✓ To make text Italicize- Select Text→Click on **I** appears on tool bar Or Select text→ Ctrl+I
- ✓ To make text underline- Select text→click on **U** appears on the tool bar Or Select Text→ Ctrl+U
- **FORMAT PAINTER:** It is a handy feature present in **Home** tab. If you want to do paragraph formatting which is done in another earlier paragraph, Format Painter can be used.
 - ✓ Formatting paragraphs allows you to change the look of the overall document.
 - ✓ Click on **Home** tab→Click on Paragraph sub section. You can do alignment, line spacing and indentation as appears on the tool bar of the **Home** tab.
 - ✓ Or
 - ✓ Click on **Home** tab→click on **small** arrow icon appears on **Paragraph** sub-section→Paragraph Dialog box appears
 - ✓ It contains Indents and Spacing and Line and page breaks.
- **ALIGNMENT OF TEXT:**
 - ✓ Left Alignment- By default text is left aligned. To make text left align, Select Text→Click on Left alignment icon appears on tool bar (**Ctrl+L**)
 - ✓ Right Alignment- Select Text→Click on Right alignment icon appears on the tool bar (**Ctrl+R**)
 - ✓ Centre-Select Text→Click on Centre alignment icon appears on the tool bar (**Ctrl+E**)
 - ✓ **Justify**-Align text to both left and right margins, adding extra space if necessary.
- By default Tab Stops are set to 0.5-inch.
- **BULLETED NUMBERED LIST:** Click on Bulleted or Numbered list from the formatted tool bar.
 - You can create nested list too.
 - When you copy or cut the text it is stored in an area of memory called **Clipboard**.
 - To use Spelling and Grammar Press **F7**.
- **PAGE FORMATTING:** It can be done using Page Layout tab
 - ✓ Page margins can be done through Ruler bar and Page Set-up dialog box.
 - ✓ Move the mouse over white ruler to change into grey.
- **PAGE SIZE AND ORIENTATION:** Click **Page Layout** tab→**Size** (Different page size can be opted as per requirement)
 - ✓ **Page Layout**→**Orientation** (Portrait or Landscape)
 - ✓ Under **Page Layout** tab you can change margins, page set up, page background and paragraph settings

- **HEADER:** It is a text that is added to the top margin in every page.

Click Insert→Select Header

- **FOOTER:** It is a text that is added to the bottom margin in every page.

Click **Insert→Page break**

- Using Page break option, you can end the page as per your requirement, before the automatic page break
- Position the insertion point at the end the line

Or Press Ctrl+Enter

4. Text-styling feature of MS word is

A. WordColor C. WordMap

B.WordArt D. WordFill

5. We can insert a page number at

A. Footer

B. Header

C. Both A & B

D. None

CHECK YOURSELF

1. In which option Header and Footer appears

A. Insert

C. Review

B. Home

D. Page Layout

2. To apply centre alignment to a paragraph we can press

A. Ctrl + S

C. Ctrl + A

B. Ctrl + S+A

D. Ctrl + E

3. Bullets and Numbering option is available under ____

(A) File

(B) Edit

(C) Format

(D) View

STRETCH YOURSELF

1. Write down the steps to do landscape orientation for a document?

2. Create a document and add Header & Footer to it. Mention title, date in Header and page number in footer.

3. Create a document and make it in double column format and give background colour to green.

ANSWERS

Check Yourself

1. A

2. D

3. C

4. B

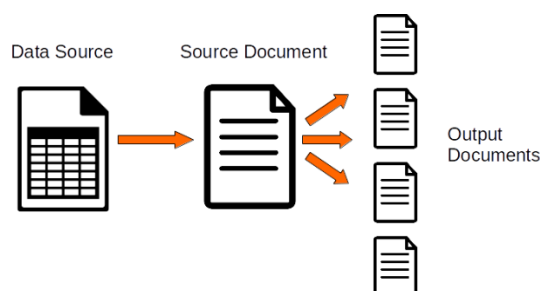
5. C

5

MAIL MERGE

MAIL MERGE: It can be used to create personalized messages automatically for documents such as:

- Marketing emails
- Envelopes
- Mailing labels
- Newsletters
- Custom catalogues
- Form letters and more!



MAIN DOCUMENT: The personalized document (standard letter, envelope or mailing label) is known as main document.

DATA SOURCE: It is the file that contains the names and addresses or any other information.

MERGE DOCUMENT: When you merge the main document with data source a third document is known as merge document.

- Select Mailings → Start Mail Merge
Select document type from Mail merge wizard
- Document type can be letters, email, addresses, directory and labels...
- If the letter is open, Mailings → Start Mail Merge → Step-by-Step Mail Merge Wizard.
- A new pane will appear on the right-hand side of your screen. Under the first section that says Select document type → choose Letters.
- You can choose E-mail messages if you want to send your letter via an email.

Then click on Next: Starting document at the bottom to continue.

- Use the current document option to use your current letter for the task.
- If your letter is in another Word file, click the Start from existing document to open that file. Then click on Next: Select recipients at the bottom.
- Select recipients → select Use an existing list. You can select the Type a new list option if you don't have your recipients' data gathered.

- Then click Browse to import your Excel spreadsheet.
- Select the recipients you want to use for mail merge.
- Sorting lets you sort your records in ascending and descending orders. Filtering lets you compare the fields and filter out the ones you don't need. Finally, click Ok at the bottom.
- Click Next→Write your letter at the bottom.
- Choose the data field you want to add and click Insert at the bottom.
- Click Next→Preview your letters
- Click the left and right arrow icons to view letters for each of your recipients.

Then click Next→Complete the merge.

- Click Print to print these personalized letters or select Edit individual letters to edit these letters.
- Mail Merge from existing Template
- Open MS-Word and choose a new document or an existing document that you would like to use as a Mail Merge template.
- Click Insert tab → Select Quick Parts→ Field.
- Choose Mail Merge from the Categories list.
- Select Field names→Select Merge Field

- Within the Field Properties section, enter a Mail Merge field in the Field name box.
- Click Ok

DATA SOURCE: If existing database information is not present, then you have to create Data Source.

- Data source using Mail Merge Helper: Mail merge wizard→Select recipients→Type a new list→Select Create option
- A dialog box appears to create list with new set of data (Title, First Name etc...as Addresses)
- Fill required data fields. Click Ok
- Save As box will appear. Locate the folder and save the file name.

MERGING DOCUMENTS: Once main document and Data Source created, you have to merge the document.

- Click on the location of your letter where to insert the Addresses
- Select Address Book from Mail Merge wizard→Insert Address Block
- Using Address Block, you can select the individual address field.
- Click Office button→Save As

CHECK YOURSELF

- In the first step of the Mail Merge Wizard, you need to select the
 - recipients' list
 - starting document
 - document type
 - none
- In Mail Merge, multiple copies of the merged document can't be printed. **(True/False)**
- You can start 'Mail Merge' by clicking on the option in the Ribbon.
 - Insert
 - Mailings
 - Review
 - None
- In Mail Merge, the document containing the common text is called.....
 - Merge Doc
 - Data Source
 - Main Document
 - Additional Source
- Mail Merge saves time and efforts. The statement is True or False **(T/F)**

STRETCH YOURSELF

- Create the Main document.
<<Date>>
<<Title>> <<First Name>> <<Last Name>>
<<Position>>
<<Company>> <<Address>>
Thank you for enrolling in our class. All classes begin at 9 a.m. and 4 p.m. we look forward to see you in our class.
- Use the following data to determine the fields needed for Data source and enter the records. Save the data source as Class Info.
- Dear <<First Name>>

Field Names	Record 1	Record 2	Record 3
Title	Ms.	Mr.	Mr.
First Name	Swati	Sourav	Chetan
Last Name	Singh	Agarwal	Mohanty
Position	President	Manager	Accountant
Company	Infosys	Wipro	TCS
Address	New Delhi	Pune	Mumbai

- Create the main document and save it as Class Act.
- Save the merged document as Merge Class Act.

ANSWERS

Check Yourself:

- B
- False
- Mailings
- C
- True

6

BASICS OF SPREADSHEET

- **To open MS-Excel :** Click on Start ->All Programs -> MS-Office -> MS-Office Excel 2007
Or Type in search
- **Spreadsheet** is also known as **Worksheet**.
- When you open **MS-Excel**, you are opening a workbook.
- A workbook contains number of worksheets.
 - ✓ Examples of Spreadsheet: MS-Excel, Lotus 1-2-3(discontinued), Google Sheet, Lotus symphony etc.
- **To insert new worksheet:**
Select Home tab -> at the bottom part of the sheet there is Insert button -> Select Insert
- **To create a new Workbook:**
Click on Office -> Select New option
- **To open an existing Workbook:** Click on Office ->Select Open option
- **To save Workbook:** Click Office - Select Save As option
- **Ribbon:** It is designed to help you quickly find the commands to complete a task.
- **Formula bar:** It is a place where you can enter or view formulas or text.
- Rows are labeled using numbers (e.g. 1 to 10,48,576)
- All columns are labeled with letters from A to Z. Then after z the next column is AA, AB, AC
- **To select Cells & Ranges:**
 - ✓ Go to Name box □ Select range by typing (e.g. A1:C10)
 - ✓ Press Enter
- **To edit data:**
 - ✓ Select the cell to editor
 - ✓ Press **F2**
- **Find and replace data:**
 - ✓ Click on Home tab -> Find.
 - ✓ If the data to be replaced Home Tab -> Find -> Replace
- **To Insert Cell:**
 - ✓ Select Home tab -> Select Cells group (where to insert) -> Click Insert Cells
 - ✓ Select Cells ->Right click -> Insert
- **To delete cells:**
 - ✓ Select Cells on the sheet
 - ✓ Home tab -> Select Delete
- **To delete selected rows:**
 - ✓ Select Home tab -> Click Delete option
- **To resize Rows and Columns:**
Select Rows or Columns
Click Home tab -> Click on Cell group -> Format

- Move or Copy entire cells: select the cells -> Click on Home tab -> Select on Clipboard section
- **To enter Text/Labels:** Click in the Cell -> Type the text -> Enter
- **Auto fill:** Auto fill is tool provided by MS-Excel to simplify entering repetitive or sequential lists of information.
- **To Create a Formula:** Click in a cell → Press the = key → Type the formula → Press Enter
- **Freeze Panes:** If you have a large worksheet with column and row headings will disappear as the worksheet is scrolled.
- Click on the labels → Select View tab → Go to Window group → Freeze panes/Unfreeze Panes
- **Page break:** Page Layout → Select Set up Group → Breaks → Insert Page break.

CHECK YOURSELF

1. In a spreadsheet, letters are used to represent _____
A) Cells
B) Rows
C) Columns
D) Blocks
2. Cells are identified by a combination of letters and numbers.
A) True
B) False

3. The files that are created with Spreadsheet software are called

- (A) Package
- (B) Program
- (C) Worksheet
- (D) Spreadsheet

4. The cells are addressed in terms of

- (A) Row and column labels
- (B) Row labels
- (C) Rows
- (D) Columns

5. Which of the following data can be typed into a Spreadsheet cell?

- (A) Formulae
- (B) Text
- (C) Numbers
- (D) All of these

STRETCH YOURSELF

1. Differentiate between a workbook and a worksheet?
2. What is the extension for Excel file?
3. Does each cell have a unique address?
4. Create a spreadsheet. Fill the spreadsheet with student name and their marks of all the subjects of your class. Save the Sheet.

5. Rename the sheet created in Question 5.
6. How to edit cells?
7. How to insert a new sheet, write down the steps?
8. How to merge cells?

ANSWERS

Check Yourself:

1. C. 2. A 3. C, 4. A 5. D

FORMATTING WORKSHEETS

- **Formatting tools**
 - ✓ In the Home tab
 - ✓ In the mini toolbar (It appears when you right click on a cell)
 - ✓ In the Format cell dialog box
- **Home Tab:** Select Home tab, here you can do formatting of text, cells or worksheet.
- **Mini Toolbar:** Using mini toolbar you can do common formatting as
 - ✓ Font Type
 - ✓ Font Size
 - ✓ Accounting Number Format
 - ✓ Comma Format
 - ✓ Font Colour
 - ✓ Format Painter
 - ✓ Borders
 - ✓ Fill Colours & many more
- **Format cell dialog box:**

Press **Ctrl+1**. Format Cell dialog box appears.
Or
Select **Home tab**→Select **Number section** to open **Format Cell dialog** box
- There are 6 tabs in Format Cell dialog box: **Number, Alignment, Font, Border, Fill and Protection**
- **Number Tab:** The data type can be selected from the options.
 - ✓ **General:** If the cell contains text and number. It does not have any specific value.
- **Alignment Tab:** These options allow you to change the position and alignment of the data in the cell.
- **Font Tab:** All Font attributes present here.
- **Border & Fill Tab:** You can provide border to the sheet and fill different colours in background.
- **Protect Tab:** You can provide password to protect your worksheet.
- **To clear a cell format:**
 - ✓ Click in the Cell that contains formatting
 - ✓ Select the Arrow on the Clear button on the Home Ribbon
 - ✓ Select Clear Formats
- **To Apply the Currency Format:**
 - ✓ Highlight Cells
 - ✓ Click on Currency Style on the Home Ribbon
- **To Apply the Comma Format:**
 - ✓ Highlight Cells
 - ✓ Click on Comma Style on the Home Ribbon
 - ✓ If necessary, click on the Increase or Decrease Decimal button
- **Format Painter:**
 - Highlight Cells
 - ✓ Format the cells to the desired format
 - ✓ Select the formatted cells

- ✓ Click Format Painter from the Clipboard Section
- ✓ Highlight the cells you wish to format
- **To AutoFit Columns:**
 - ✓ Click on **Column Header** or any other cell in the Column to change width
 - ✓ Go to Home tab → Select Format from the Cells Group → Select AutoFit Column width
- **To AutoFit Rows:**
 - ✓ Click on Row Header or any other cell in the Row to change height
 - ✓ Go to Home tab → Select Format from the Cells Group on the Ribbon → Select AutoFit Row Height
- **Columns and Rows in best fit:**
 - ✓ Place your pointer on or near the right edge of a column header of the column you wish to adjust.
 - ✓ The pointer changes to a double-headed arrow
 - ✓ Double-Click your pointer
- **To Hide/Unhide Columns & Rows:**
 - ✓ Select Columns/Rows → Right Click → Hide/Unhide options
- **AutoFormat:** Select Cells → Home Tab → Style Group → Format as Table
- **Hide/Unhide Worksheet:** Select sheet → Right Click → select Hide/Unhide option

CHECK YOURSELF

1. Which of the following methods cannot be used to enter data in a cell?
 - A. Pressing an arrow key
 - B. Pressing the Tab key
 - C. Pressing the Esc key
 - D. Clicking on the formula bar
2. To change the font of your entire spreadsheet, to make it bold, italic or underline it, you must first:
 - A. Select the font you wish to use
 - B. Go to Insert and select "Insert Font options"
 - C. Select all the cells to which you wish to apply the formatting changes
 - D. Click the bold, underline or italic buttons in the home tab.
3. You can activate a cell by
 - a. Pressing the Tab key
 - b. Clicking the cell
 - c. Pressing an arrow key
 - d. All of the above

4. How can you remove borders applied in cells?

A. Choose None on Border tab of Format cell

B. Open the list on the Border tool

C. Both of the above

D. None of the above

5. The Software which contains rows and columns is called _____

A. Database B. Drawing

C. Spreadsheet D. Word processing

STRETCH YOURSELF

1. What is Format Painter? When do you think format painter is useful in MS-Excel?

2. Write down the steps to hide column and row.

3. How to copy styles from an open workbook to another?

4. How to insert new sheet and rename it?

5. How to do auto fit for rows and columns?

6.

	A	B
1		
2	Date:	1/1/2011
3	EMPL Number	EMPL Name
4	E00001	Ford
5	E00002	Mino
6	?	Bell
7	?	Davis
8	?	Turro

I. Create a new workbook as shown below and save the file with the name "Payroll".

II. Enter the labels and values in the exact cells locations as desired.

III. Use AutoFill to put the Employee Numbers into cells A6:A8.

IV. Set the columns width and rows height appropriately.

V. Set labels alignment appropriately.

VI. Format cell B2 to Short Date format.

VII. Format cells E4:G8 to include Rs sign with two decimal places.

IX. Save your work

ANSWERS

Check Yourself:

1. C

2. C

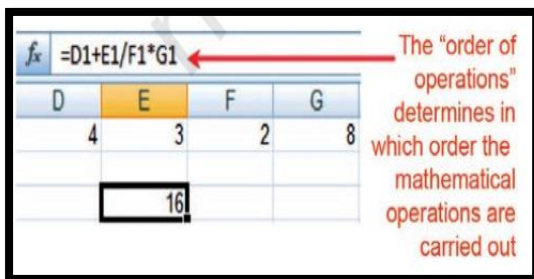
3. D

4. C

5. C

FORMULAS, FUNCTIONS AND CHART

- **Formula:** It is a mathematical calculation on a set of cells.



- The formula is shown only when the cell is selected by “clicking”.
- **BEDMAS** rule to be followed for calculations.
- A spreadsheet without any formulas is a collection of data which are arranged in rows and columns (a database) like a calendar, timetable or simple list, etc.



- **Functions:** Functions are more complex formulas that are executed by using the name of a function and stating whatever parameters the function requires
- A function involves 4 main issues.
 - ✓ Name of the function
 - ✓ The purpose of the function

- ✓ The function needs what argument in order to carry its assignment

Function	Defined
=Sum()	Returns the Sum of the selected cells
=Average()	Returns the Average of the selected cells
=Max()	Returns the Highest value of the selected cells
=Min()	Returns the Lowest value of the selected cells
=Count()	Returns the number of values of the selected cells

- Auto Sum: The sum of cells can also be done using Auto Sum feature.
 - ✓ Click on cell for which sum has to be done
 - ✓ Select the Formula tab→Click AutoSum from the function library group→Select Sum→Press Enter

- **Date and Time Function:**

- ✓ TODAY () – It is the function for today's date in the blank worksheet. It returns the serial number of the current date.
- ✓ NOW () - It is similar function but it includes the current time also.

- ✓ DAY (serial_number) - This function returns the day of a date as an integer
- ✓ MONTH (serial_number) - It returns month of a date as an integer ranging from 1 (January) to 12(December).
- ✓ YEAR (serial_number) - Returns the year corresponding to a date as an integer ranging from 1900 - 9999.

• **Mathematical Function:**

- ✓ SUMIF() - It is the function which adds the cells as per given specified criteria. The syntax
- ✓ SUMIF(range,criteria,sum_range)- Where
- ✓ **Range** it is the range of cells to evaluate.
- ✓ **Criteria** it is the criteria in the form of a number, expression, or text that defines which cells will be added.

The screenshot shows an Excel spreadsheet with the following data:

	D	E
	Asset Value	Depriciation
	100,000	7,000
	200,000	14,000
	300,000	21,000
	400,000	28,000
Total	1,000,000	70,000
Using SUMIF		63000

The formula bar shows: `=SUMIF(D2:E5,">150000",E2:E5)`

e.g. criteria can be expressed 1500, "1500", ">1500" or "Books".

Sum_range are the actual cells to sum.

Ex: There are sum Asset Values (D2:D5) and related to each asset values there are depreciation values (E2:E5). Using SUMIF function we have to calculate the sum of depreciation for those Asset Values which are more than 1, 70,000/-.

The function is written in the cell E7 like =SUMIF (D2:E5,">150000, E2:E5) which gives result 63,000/-

Charts: Charts allows you to present data entered into the worksheet in a visual format using variety of graph types.

- **Chart** consists of chart title, x- axis title, y-axis title, x-axis category, y-axis value, data labels, legends, tick mark and grid lines.
 - ✓ Chart Title: A title given to the whole chart.
 - ✓ X-axis Title: A title given to the X-axis data range.
 - ✓ Y-axis Title: A title given to the Y-axis data range.
 - ✓ X-axis Category: These are the categories of the data which have been plotted. These are taken from the first row or the first column.
 - ✓ Y-axis Value: This is the data range marked to plot the data series.
 - ✓ Data Labels: The vales of the data series plotted.
 - ✓ Legends: Specifies the colour, symbol or pattern used to mark data series.

- ✓ Tick Mark: These marks are used to show the scaling of X-axis & Y-axis.
- ✓ Grid Lines: It displays lines at the major intervals on the category.

• **How to draw Chart?**

- ✓ Enter data to the worksheet
- ✓ Select data range using mouse or through keyboard
- ✓ Click Insert Tab & select a chart type
- ✓ Select the sub-type of chart
- ✓ Select title of the chart
- ✓ Provide a name to X-axis. Click on Layout Tab

• **Graphics:** Auto shapes & Smart Art

- ✓ Click on **Insert** Tab → From the **Illustrations Group** → Click on **shapes**
- ✓ Different categories of Auto shapes are available such as Lines, Connectors, Basic shapes, Block arrows, Flow chart, Stars & Banners and Call Outs.
- ✓ Adding Clip Art: Click on **Insert** Tab → Select **Clip art** from **Illustrations Group** → Choose a **clip**

CHECK YOURSELF

1. Which field in the Excel window allows and formulas to be entered?

- A. Formula bar B. Title bar
- C. Menu bar
- D. Standard tool bar

2. In Excel, formula begins with which symbol

- A. + B. @ C. (D. %

3. What would be a correct formula for SUM () in Excel?

- A. = SUM(B3:B9) B. SUM=B3+B9
- C. SUM(B3:B9) D. =ADD(B3:B9)

4. Which formula gets the biggest value of a range of cells?

- A. MIN () B. COUNT () C. MAX () D. SUM()

5. What does COUNTA () function do?

- A. Counts cells having alphabets
- B. Counts empty cells
- C. Counts cells having number
- D. Counts non-empty cells

6. In the formula, which symbol specifies the fixed columns or rows?

- A. \$ B. * C. % D. ;

7. Which tab is used to include pivot table, charts and hyperlink in Excel?

- A. Insert B. Page layout
- C. Data D. Review

8. How do you display current date only in MS Excel?

- A. Date ()
- B. Today ()
- C. Now ()
- D. Time ()

9. A _____ conveys visual representation of data.

- A. Chart B. Picture
C. Text box D. Column

10. Which function can display a value depending on a condition?

- A. COUNT B. IF
C. SUM D. AVG

5. A sports teacher has measured the heights of the students in a class. Satish has been given the assignment to find the maximum and minimum height from the collected data. Suggest the functions, which he should use to accomplish the task.

STRETCH YOURSELF

	A	B	C	D	E
1	Add	Subtract	Multiply	Divide	
2	12	25	11	75	
3	8	13	6	5	

1. From the above figure do the addition, subtraction, multiplication and division and write the result in subsequent cells.
2. Create a worksheet and fill it with students Name, Roll no and Mark in Math.
Save the Worksheet and get the total number of student present in your class.
Do sum of Marks of students.
3. Insert a clip art to your sheet.
4. How a column chart different from a Bar chart?

ANSWERS

Check Yourself:

1. A 2. C 3. A 4.C 5. D
6. A 7.A 8. B 9. A 10. B

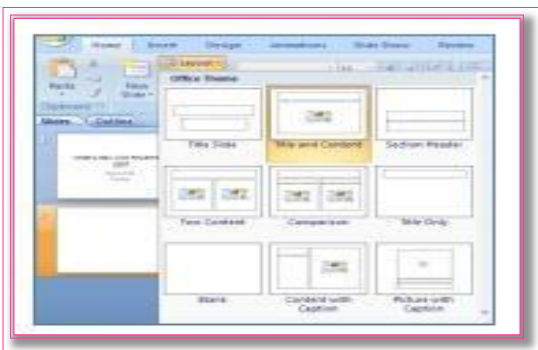
Stretch Yourself:

1. Hint: Take cell values where figures has given
2. Create a worksheet. Enter roll no, name and mark. Use Count() & Auto Sum feature.

CREATING PRESENTATION

- **To open MS-PowerPoint:** Click on Start ->All programs ->Select Microsoft Office -> Select Microsoft Office PowerPoint 2007
 - ✓ In PowerPoint 2007 the **commands** are displayed on the **Ribbon** for easy access.
 - ✓ Tabs are designed to be task-oriented.
 - ✓ Groups within each tab break a task into subtasks.
 - **Ribbon:** An area across the top of the screen that makes almost all the capabilities of PowerPoint available in a single area.
 - **Tab:** An area on the Ribbon that contains buttons organized in groups. The default tabs are **Home, Insert, Design, Animations, Slide Show, Review and View.**
 - **Quick Access Tool Bar:** A customizable tool bar at the top of an active document. By default the Quick Access Tool Bar displays the Save, Undo and Repeat buttons and is used for easy access to frequently used commands.
 - **Title Bar:** A horizontal bar at the top of an active document. This bar displays the name of the presentation and application. At the right end of the Title Bar Minimize, Restore and Close button appears.
 - **Groups Categories:** A Group of buttons on a tab those are exposed and easily accessible.
 - ✓ The **Home** tab is organized in 7 groups mainly related to **slide layout and formatting:** Clipboard, Slides, Font, Paragraph, Drawing, and Editing.
 - ✓ The **Insert** tab is organized in 5 groups: Tables, Illustrations, Links, Text, and Media Clips, diagrams, charts, text boxes, sounds, hyperlinks, headers and footers.
 - **Design tab:** It is organized in 3 groups.
 - ✓ Page Set up
 - ✓ Themes
 - ✓ Background
 - **Animations tab:** It is organized in 3 groups.
 - ✓ Preview
 - ✓ Animations
 - ✓ Transition
- Using the above options you can give the animating effects to your presentations and slide transitions.

- **Slide show tab:** This is organized in 3 groups.
 - ✓ Start slide show
 - ✓ Setup
 - ✓ Monitor
- **Review tab:** It is organized in 3 groups:
 - ✓ Proofing
 - ✓ Comments
 - ✓ Protect.
- **View tab:** It is organized into 6 groups.
 - ✓ Presentation Views
 - ✓ Show/Hide
 - ✓ Zoom
 - ✓ Colour/Gray Scale
 - ✓ Window
 - ✓ Macros.
- **To open an existing presentation:** Click the Office Button ->Click Open -> From the Open dialogue box, navigate to the folder.
- **Creation of new slide:** Click on Home tab -> New Slide -> Right-click on the slide from the slides tab ->Select New Slide on the pop-up menu -> Click on a slide from the slides tab -> Press Enter



- **Deletion of slide:** Right-click the slide that you want to delete -> Click Delete Slide.
- **Text formatting:**
 - ✓ To enter text in a title field, click inside the field and type the text.
 - ✓ To change the appearance or colour of any text, select the text -> use the tools in the Font and Paragraph groups on the Home tab.
 - ✓ To add an additional text area to your document, click the Insert tab, then from the Text group -> click the Text Box button. Drag a box onto the slide using the mouse.
 - ✓ To reposition text on your slide click the border of the text area, then drag it to its new position.
 - ✓ To remove a text area from your slide, click the border of the text area, then press the Delete key.
- **Theme selection for Presentation:** Click on the Design tab, in the Themes group -> click document theme that you want or click more to see all available document themes.
- **Inserting Objects to the Presentation:**
 - ✓ **Inserting Pictures:** Click on Insert tab, in Illustrations Group -> Click Picture -> Double-Click on folder where picture is stored -> Double-

✓ Click on picture you want to insert

- ✓ **Inserting Clip:** Click on Insert tab, in Illustrations Group -> Click Clip Art

*** Note - Once Picture or Clip Art is inserted, if you want to resize it or give it special effects. Click on the image and the Picture Tools appear on the Ribbon. Click the Format tab, and use buttons and options there to work with the picture.*

- **Inserting a Chart:** Select the slide where chart to be inserted -> On the **Insert** tab, in the Illustrations group -> click **Chart** -> From the Insert Chart dialog box, click chart -> click ok.
- **Inserting Smart Art:** Click on Insert tab, in the Illustrations group -> Click Smart art -> Choose a Smart art -> Click the type and layout.
- **Transitions Between Slides:**
To choose an effect, click on the Animations tab
- **To view presentation:**
 - ✓ Click on slide show tab, to start from the first slide -> click from beginning option or choose from the current slide
 - ✓ The presentation opens in Slide Show view
 - ✓ Click to advance to the next slide
- **Creating a Show:** Click on office -> choose power-point show option
- **Printing Handouts and Notes Pages:**
 - ✓

- ✓ Click office button -> select print preview option
- ✓ Page set-up group -> click on print what box -> Click Notes pages to print and select Handouts to print
- ✓ To specify page orientation -> click on orientation -> Portrait or Landscape

***Note – You can print only one slide Thumbnail with notes per page when printing notes*

CHECK YOURSELF

- _____ is a presentation program.
 - A. U-torrent
 - B. Mozilla Firefox
 - C. MS-PowerPoint
 - D. Slide Panel
- In PowerPoint, the header and footer button can be found on the insert tab in what group?
 - A. Tables group
 - B. Text group
 - C. Object group
 - D. Illustrations group
- What are the 3 options available in Insert -> picture?
 - A. Clip art, Pictures, Shapes
 - B. Clip art, from file, Shapes
 - C. Clip art, from file, Auto shapes
 - D. Clip art, Pictures, Auto shapes

4. The slide that is used to introduce a topic and set the tone for the presentation is called the

- (A) Title slide
- (B) Bullet slide
- (C) Table slide
- (D) Graph slide

5. In which bar we can see the current position of the slide?

- (A) Ribbon
- (B) Title bar
- (C) Status bar
- (D) View option bar

6. Which term is related with increasing or decreasing the space between characters?

- (A) Page number
- (B) Spacing
- (C) Header
- (D) Footer

7. What is the short-cut key to play the slide from the beginning?

- A. ctrl+F7
- B. F5
- C. ctrl+F5
- D. Alt+F5

8. To place something in the same position on every slide of Presentation automatically, insert into

- A. Slide master
- B. Notes master
- C. Handout master
- D. None of the above

9. Which of the following is not one of Power-point view?

- A. Slide show
- B. Presentation view
- C. Slide view
- D. Outline view

10. Which key do you press to check spelling?

- A. F5
- B. F3
- C. F7
- D. F9

STRETCH YOURSELF

1. Create a presentation on your village/city in 5 slides.
2. How to give sound effect to your presentation?
3. Make a presentation and save it as a show

ANSWERS

Check Yourself:

- | | | | | |
|------|------|------|------|----|
| 1. C | 2. B | 3. C | 4. A | 5. |
| C | 6. B | 7. B | | |