

MS EXCEL

It is a spreadsheet program which allows to create and manage worksheets. It allows to do statistical and financial analysis mainly. And so that, this program can be used to prepare a salary sheet, marks sheet, project report, daily report, charts etc.

A file created in MS Excel is known as “WORKBOOK” and the extension name of file is “.xls”.

A workbook contains three worksheets by default, in which each worksheet is divided into Row and Columns and each worksheet contains 256 columns and 65536 rows.

***Req. step to start MS Excel :-**

i) Click on Start → All Programs → Microsoft office → Microsoft Excel.

or,

- i) Press window key + R
- ii) Type excel
- iii) Press Enter Key

or,

Double click on the icon of Microsoft Excel present on the desktop screen.

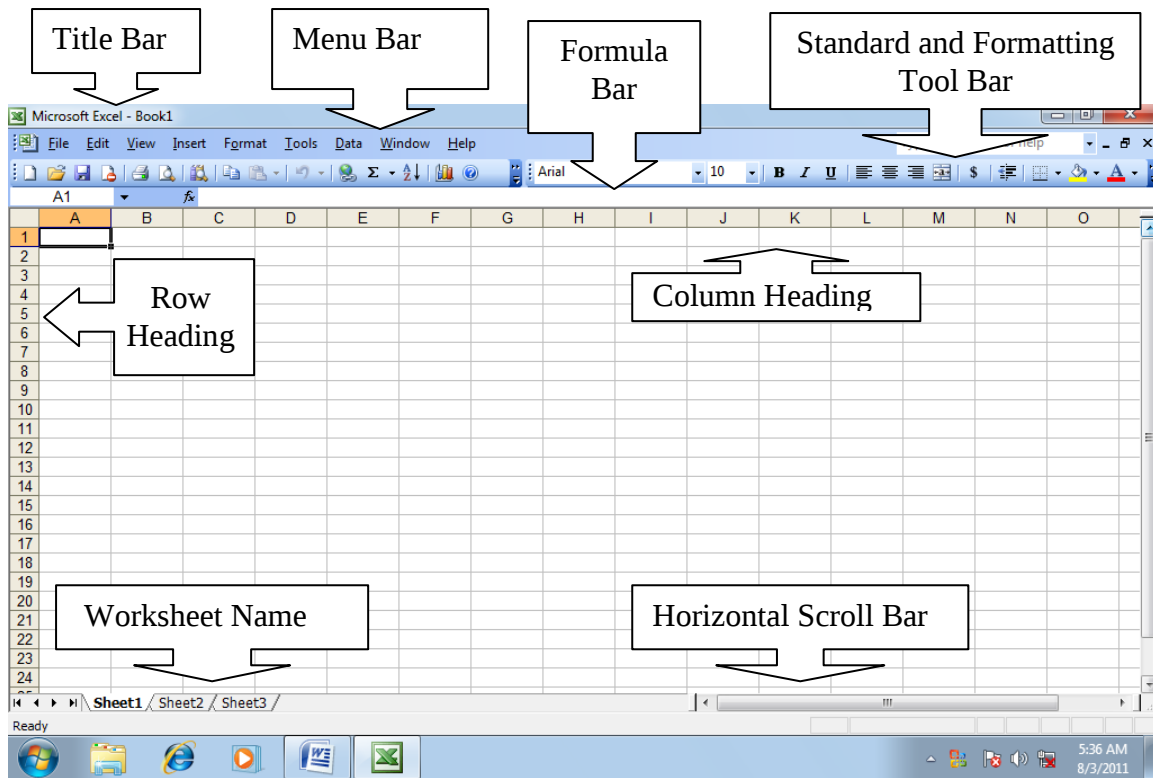
* The workspace area of M.S. Excel is known as Worksheet.

* Workbook Template is known as .XLT.

* Each row and column intersection creates a Cell where we enter our data.

NOTE :-

- i) An area created by the intersection of rows and columns is called cell. Where we recorded our tabular data. The first cell of a sheet is A1 where A is the first column and 1 is the first Row.
- ii) The last cell of a sheet is IV 65536, where IV is the last column and 65536 is the last Row.



Commands of MS Excel and their purpose :-

1) File → New (Ctrl+N)

This option is used to create a new workbook in MS Excel.

*** Req. step to create a new workbook :-**

- i) Click on File → New
- ii) Select blank workbook option from the Task pane area.

2) File → Save (Ctrl +S)

It is used to save the contents of current workbook for future.

***Req. steps to save the workbook:-**

- i) Click on File → Save or press Ctrl+S
- ii) Type desired name of file/workbook.
- iii) Click on save option or press enter.

3) Edit → Find (Ctrl+F)

This option is used to search desired text in the current workbook.

***Required step -**

- i) Press Ctrl+Home key
- ii) Click on edit→ find
- iii) Type desired text to be search
- iv) Click on find next till last searching.

4) File → Close (Ctrl+W)

This option is used to close the current file or workbook.

***Required steps-**

- i) Click on File → Close or press Ctrl+W.

5) File → Open (Ctrl+O)

It allows to open an existed file or workbook.

***Required steps :-**

- i) Click on File Menu
- ii) Click on Open option
- iii) Click on the name of workbook which is to be open
- iv) Click on open button on press enter key

6) Edit → Replace

This command is used to replace any text with new text.

***Required step to replace any text in the current workbook:-**

- i) Press Ctrl+Home
- ii) Click on Edit → Replace
- iii) Type desired text to be replace
- iv) Press Tab key
- v) Type desired new text which to be placed

- vi) Click on Find next
- vii) Click on Replace or Replace All.

7) File → Exit (Alt+F4)

It is used to close the current workbook with the current MS Word Window.

8) Edit → Copy (Ctrl+C)

This option allows to copy the selected text and to send this text to the clipboard memory.

Format → Column → Width :-

This option allows changing the width of selected column. Default width of a cell is = 8.43 character.

* Required Step :-

- i) Select desired column
- ii) Click on Format – column – width

- iii) Specify desired value for width
- iv) Click on OK.

Format → Column → Autofit :-

It allows to adjust the width of column automatically.

*Required steps :-

- i) Select desired column
- ii) Click on Format – column – Autofit

Format → Column → Hide:-

It allows to hide the selected column.

*Required steps :-

- i) Select desired column to be hidden
- ii) Click on Format – column – hide

Format → Column → Unhide:-

It allows to show the hidden column of the sheet.

*Required steps :-

- i) Select two continuous column in between the hidden column is present.
- ii) Click on Format – column – Unhide
or,
i) Select entire sheet by pressing
ctrl + shift + spacebar
- ii) Click on Format – column – Unhide

Format → Row → Height :-

This option allows to change the height of selected row.

Default height of a cell is = 12.75 points.

* Required Step :-

- i) Select desired row
(click on row heading or press ctrl+spacebar)
- ii) Click on Format – row – height
- iii) Specify desired value
- iv) Click on OK.

Format → Row → Hide:-

It allows to hide the selected row.

*Required steps :-

- i) Select desired row to be hidden
- ii) Click on Format – row – hide

Format → Row → Unhide:-

It allows to show the hidden row of the sheet.

*Required steps :-

- i) Select two continuous row in between the hidden row is present.
- ii) Click on Format – row – Unhide

or,

- i) Select entire sheet by pressing ctrl+A or,
ctrl + shift + spacebar
- ii) Click on Format – row – Unhide

Format → Sheet → Hide:-

It allows to hide the current sheet.

*Required steps :-

- i) Click on desired sheet to be hidden.
- ii) Click on Format – sheet – hide

Format → Sheet → Unhide:-

It allows to show the hidden sheet.

*Required steps :-

- i) Click on format – sheet – unhide
- ii) Select desire sheet name to be shown
- iii) Click on OK.

Format – Sheet – Rename:-

It allows to change the name of current sheet.

*Required steps :-

- i) Click on format – sheet – rename
- ii) Type desired name
- iii) Press enter key.

Or,

- i) Right click on desired sheet tab to be renamed.
- ii) Click on rename option
- iii) Press enter key.

*Maximum 30 characters can be typed for renamed.

* Default Font in excel is = Arial
Default size in excel = 10

Format → Sheet → Tab Color:-

It allows to change the tab color of selected sheet.

*Required steps :-

- i) Click on Format – Sheet – Tab color
- ii) Select desire color
- iii) Click on OK.

Format → Sheet → Background

To apply a picture as the background of current sheet.

*Required steps :-

- i) Click on Format – Sheet – Background
- ii) Select desire picture
- iii) Click on Insert.

Format → Sheet → Delete Background:-

To remove the background picture from the sheet.

*Required steps :-

i) Click on Format – Sheet – Delete Background

Format → Sheet → Autoformat:-

This option allows to change the background pattern of selected cell range.

*Required steps :-

i) Select desire cell range

ii) Click on Format – Auto Format

iii) Select desired format

iv) Click on OK.

****Format → Cell ** (Ctrl+1)**

It allows to change the font, type, style, color etc. for the selected cell range. It also allows to change the Alignment of text for the cells and to apply border and shading for the cells.

*Required steps to format text :-

i) Select desired cell range for which the text is to be formatted.

ii) Click on Format - Cell

- iii) Click on Font Tab
- iv) Select desire Font, type, style, size, color etc.
- v) Click on OK.

*Required steps to change alignment of text :-

- i) Select desired cell range
- ii) Click on Format - Cell
- iii) Click on Alignment Tab
- iv) Select desire Alignment like – left, right, center, top, bottom.
- v) Click on OK.

Alignment Tab

[] Merge cell

[] Wrap text (Alt+Enter) {Wrap text to shrink text in many lines in a cell. Create word in compressed mode.

Note:- The text of cell can be aligned in diagonal format (desire angle) also.

* Required steps to merge cell :-

- i) Select desired range of cells to be merged
- ii) Click on Format – Cells
- iii) Click on Alignment Tab
- iv) Click on Merge Cells option
- v) Click on OK.

* Required steps to apply Border for the cells:-

- i) Select desired range of cells to be bordered.
- ii) Click on Format – Cells
- iii) Click on Bordered Tab
- iv) Select desired border style
- v) Click on OK.

* Required step to apply shading for the cells:-

- i) Select desired range of cells to be shaded
- ii) Click on Format – Cells
- iii) Click on Pattern Tab
- iv) Select desired color.
- v) Click on OK.

* Format – Conditional Formatting :-

This option allows to format those range of cells which are true for the selected condition.

Required steps:-

- i) Select desired cell range
- ii) Click on Format – Conditional Formatting
- iii) Select desired condition
- iv) Now specify desired value as per the selected condition.
- v) Click on Format option
- vi) Perform desired formatting
- vii) Click on OK.

* Insert – Row :-

It allows to add a new Row before current row.

Required steps:-

- i) Click in the row before a new row is needed
- ii) Click on Insert – Row

* Insert – Column :-

It allows to add a new Column before current column.

Required steps:-

- i) Click in the column before a new column is needed
- ii) Click on Insert – Column

* Insert – Worksheet :-

It allows to add a new worksheet before current sheet.

Required steps:-

- i) Click on desired sheet
- ii) Click on Insert – Worksheet

SHORTCUT

- To go to next sheet :- ctrl+Page down
- To come back previous sheet :- ctrl+Page up

*Edit – Delete Sheet :- This option allows to remove the current sheet.

Required step :-

- i) Click on desired sheet to be deleted
- ii) Click on Edit – Delete sheet

*Edit – Clear – Contents :-

To erase the selected content of sheet.

Required step :-

- i) Select desired contents
- ii) Click on Edit – Clear content

*Edit – Clear Formats :-

To remove the formatting of selected text.

*Edit – Undo (ctrl+Z) :-

To go one step back.

*Edit – Repeat or Redo (ctrl+Y or F4) :-

To go one step forward.

*Edit – Go To (ctrl+G or F5) :-

To go to desired location in the sheet or workbook.

*View – Toolbar :-

It is use to insert or remove desired toolbar from the currently opened sheet.

Required step :-

- i) Click on View Menu
- ii) Click on Toolbar
- iii) Select desired toolbar from the list

*View – Header & Footer :-

With the help of this option we apply heading section as well as footer section where we type describe information.

Required steps :-

- i) Click on View Menu
- ii) Click on Header and Footer

*View – Full Screen :-

It is used to return full screen mode.

Required steps :-

- i) Click on View menu
- ii) Click on Full Screen

*View – Zoom :-

With the help of this option we magnify our sheet in desired percentage.

Required steps :-

- i) Click on View Menu
- ii) Click on Zoom option
- iii) Select desired percentage
- iv) Click on OK.

* Insert – Chart :-

It is a type of facility in MS-Excel which allows to represent desired values graphically. With the help of chart option we represent desired data graphically.

Required step to create chart :-

- i) Select desired range from the sheet
- ii) Click on Insert Menu
- iii) Click on Chart
- iv) Select desired chart type as column, pie, bar, line etc.
- v) Click on Next
- vi) Click on Finish.

*Insert – Symbol :-

With the help of this option we insert desired symbol.

Required Steps :-

- i) Select desired position
- ii) Click on Insert Menu

- iii) Select desired symbol from the list
- iv) Click on Insert button.

*Insert – Hyperlink :-

It is a type of feature in MS Excel which allows to create link between two files as well as sheets.

Required steps to create link:-

- i) Select desired text
- ii) Click on Insert Menu
- iii) Click on Hyperlink
- iv) Select desired file
- v) Click on OK.

or,

Click on the place in document or select desired sheet, click on OK.

*How to remove Hyperlink:-

- i) Select desired text as Hyperlink text
- ii) Click on Insert Menu
- iii) Click on Hyperlink
- iv) Click on Remove link button
- v) Click on OK.

* Tools – Spelling and Grammar (F7):-

It is that option which allows to check spelling and grammar related errors and also allows to remove those errors.

Properties of spelling and grammar :-

Red – Spelling and grammar

Green – Grammatical error

Required steps :-

- i) Click on Tools menu
- ii) Click on spelling and grammar
- iii) Select desired correct word from list
- iv) Click on change button or change all button.

*Tools – Protection – Sheet/Workbook:-

With the help of this option we protect our sheet as well as workbook with password.

Required step to protect sheet:-

- i) Click on Tools Menu
- ii) Click on protect option
- iii) Click on Sheet
- iv) Type desired password
- v) Type confirm password
- vi) Click on OK.
- vii) Press Save.

**What is Function?

It is a type of facility which performs desired works with the help of operand only.

$$10 + 14 = 24$$

(Operand) (Operator) (Operand) (Result)

A big program can be divided into set of small unit such units are called function with the help of function we perform different types of works very fast.

Such as :- Sum(), sqrt(), int(), abs(), mod(), pow(), max(), min(), left(), right(), mid(), len(), upper(), lower(), proper(), now(), today(), product() etc.

* Sum () :- It is that function which is used to add desired values.

Required steps :-

- i) Select position where we want to Add
- ii) Type =sum(A2,A3,A4) or type cell range
- iii) Press Enter key.

Note:- Syntax : Proper writing style of formula/function is called syntax.

* Sqrt () :- It is that function which is used to return square root. ($\sqrt{25} = 5$)

Required step:-

- i) = sqrt (value),
- ii) press enter

syntax,

=sqrt(25)

=5Ans.

***Int () :-** It is used to return integer value.

Required steps :-

i) Type Function as =int (A2)

ii) Press enter key

Syntax:

=int(20.50)

= 20 Ans

***Abs () :-** It is used to get absolute value.

Required steps :-

i) Type Function as =Abs (A2)

ii) Press enter key

***Mod () :-** It is used to return reminder value by dividing a number with another number.

Required steps :-

i) Type Function as =mod (A1,A2)

ii) Press enter key

syntax,

=Mod(20,3)

=2 Ans.

***Power () :-** It is used to return power value of desired given value.

Required steps :-

i) Type Function as =power (A1,A2)

ii) Press enter key

syntax,

=power(2,4)

=16 Ans.

*Max () :- It is that function which is used to return maximum value of desired given cell range.

Required steps :-

i) Type Function as =max (A1,A2,A3,A4,A5)

ii) Press enter key

*Min () :- It is that function which is used to return minimum value of desired given cell range.

Required steps :-

i) Type Function as =min (A1,A2,A3,A4,A5)

ii) Press enter key

*Product () :- It is used to multiply desired given cell range.

Required steps :-

i) Type Function as =product (A1, A2)

ii) Press enter key

or, syntax

=product(2,4,7)

=56Ans.

*Now () :- It is that function which is used to return current date and time.

Required steps :-

- i) Type Function as =now ()
- ii) Press enter key

*Today () :- It is that function which is used to return current day.

Required steps :-

- i) Type Function as =today ()
- ii) Press enter key

*Upper () :- It is used to return upper case letter.

Required steps :-

- i) Type Function as =upper (“this is a book”)
- ii) Press enter key THIS IS A BOOK

*lower () :- It is used to return lower case of typed text in the cell .

Required steps :-

- i) Type =lower (“THIS IS A BOOK”)
- ii) Press enter key

*`Proper ( )` :- It is used to return proper case of desired string.

Required steps :-

- i) Type `=proper ("THIS IS A BOOK" )`
- ii) Press enter key

*`len ( )` :- It is used to count total length of given string.

Required steps :-

- i) Type `=len ("THIS IS A BOOK" )`
- ii) Press enter key

*`left ( )` :- It is used to return desired character from the left side of the given string.

Required steps :-

- i) Type `=left ("THIS IS A BOOK", "4" )`
- ii) Press enter key

*`Right ( )` :- It is used to return desired character from the right side of the given string.

Required steps :-

- i) Type `=right ("THIS IS A BOOK", "4" )`
- ii) Press enter key

*`Mid ( )` :- It is used to return desired character from the middle of the given string.

Required steps :-

- i) Type =Mid (“THIS IS A BOOK”, 3, 4 “)
- ii) Press enter key

*count () :- It is used to count total number of numeric cell in the cell range.

Required steps :-

- i) Type =count (A1:A4)
cell range
- ii) Press enter key

*count a() :- It is used to count total number of numeric as well as character cell in the cell range.

Required steps :-

- i) Type =count a(A1:D4)
cell range
- ii) Press enter key

*count blank() :- It is used to count total blank cell which does not contain any value in the cell range.

Required steps :-

- i) Type =count blank(A1:A4)
cell range
- ii) Press enter key

Required steps :-

- *****

Result = XX

or, = floor (18,5), press enter, result = 15.

Syntax :

= floor (27,9), press enter, result = 27.
or, = floor (18,5), press enter, result = 20.

*FV () = This function will return the future value of an investment.

Syntax :

= fv (0.005, 15, 5000), Press Enter
Rate, term, amount

*Pmt () = This function will return the installment amount for a loan.

Syntax :

= pmt (0.005, 48, 50000), Press Enter
Rate, term, amount

*Fact () = This function will return the factorial number specified.

Syntax :

=fact (4) press enter key,
Result = $1 \times 2 \times 3 \times 4 = 24$

*And () :- This function checked the given conditions and if all conditions are true then it returns '**True**' as result otherwise it returns '**False**'.

Syntax :

= And (B2>=80, C2>=80, D2>=80)

press enter key

Cond.1 Cond.2

***Or () :-** This function checks the given conditions and if any one condition will true then it returns '**True**' as result otherwise it returns '**False**'.

Syntax :

= Or (B2>=70, C2>=25) press enter key

Cond.1 Cond.2

***if () :-** This function checks the given condition and if the condition is true then it returns first given result otherwise it returns second given result.

Syntax :

= if (B2>=70, "Pass", "Fail") press enter key
Cond. 1st result 2nd result

Combined function if, and / if,or

= if (and(b2>=50, c2>=20), "Press", "Fail")

= if (or(b2>=50, c2>=20), "Grade A", "Grade B")

Example:-

Function for check result in First, Second, Third,
Fail →

= if(E2>=60, "First", if(E2>=45, "Second",
if(E2>=30, "Third", "Fail")) press enter key.

*** Tools – General :-**

It allows to create permanent protection.

Required step:-

- i) Click on Tools – General option
- ii) Type desired password
- iii) Press enter key or click on OK
- iv) Again type the same password
- v) Press enter key or click on OK
- vi) Click on save option
- vii) Click on file – close.

*** Required step to open the password protected file:-**

- i) Click on File – open
- ii) Select the password protected file to be opened
- iii) Click on open option or press enter key.
- iv) Now type the correct password
- v) Click on OK or Press Enter key.

***Required steps to change the password:-**

- i) Click on Tools – General
- ii) Type desired new password
- iii) Press enter key or click on OK.
- iv) Type the same password
- v) Press enter key or click on OK
- vi) Click on save option

vii) Click on File – Close.

*Required step to remove password :-

- i) Open the password protected file by the entry of correct password.
- ii) Click on Tools – General option
- iii) Erase the current displaying password
- iv) Click on Save option
- v) Click on File - Close
- vi) Now open this file.

* Tools – Formula Auditing – Trace Dependent:-

This command is used to locate the dependent cell of the current cell.

Required steps :-

- i) Click on the cell for which the dependent cell is to be located like B2.
- ii) Click on Tools- Formula Auditing – Trace dependent.

*Tools–Formula Auditing – Remove All Arrows:-

This command will remove the arrows which were drawn by the application of formula auditing command.

*Tools – Formula Auditing – Trace Precedent:-

This command will locate the precedent cells of current cell.

Required steps :-

- i) Click on desired formula applied cell, like D2
- ii) Click on Tools – Formula Auditing – Trace Precedent.

*Tools – Goal Seek :- This option allows to change the value of any precedent cell to achieve desired target in the dependent cell.

Req. Steps:-

- i) Click on desired dependent cell like D2
- ii) Click on Tools – Goal Seek
- iii) Specify desired targeted value
- iv) Press Tab key
- v) Now specify desired precedent cell name in which value should be changed like B2
- vi) Click on OK.
- vii) Again click on OK.

*Data – Sort :-

This option allows to arrange the data of selected range into ascending or descending order.

Required steps:-

- i) Select the data range to be arranged.

- ii) Click on Data – Sort
- iii) Select desired column name according to which the data are to be sorted.
- iv) Select desired order for sorting like Ascending or descending
- v) Click on OK.

Note:- The data are to be sorted by using ascending or descending tool of toolbar.

***Data – Subtotal :-**

It allows to get GroupWise subtotal for the selected Data Range.

Name	Month	Deposit
Amit	Dec.	1500
Vishal	Dec.	1300
Amit	Jan.	1000
Vishal	Jan	1200
Amit	Feb.	750
Vishal	Feb.	700

Required steps:-

- i) Click on Name column
- ii) Click on Ascending tool
- iii) Click on Data – Subtotal.
- iv) Click on OK.

*Data – Filter – Auto Filter :-

It allows to filter desired data from the data base which are true for the selected condition.

Required steps:-

- i) Select the Data range
- ii) Click on Data – Filter – Auto Filter.
- iii) Select desired condition from the appeared drop down list box of any column.

*Data – Form :-

This option allows to create and manage a Database.

Required Steps:-

- i) Type desired column heading followed by Tab key.
- ii) Select these column heading
- iii) Click on Data – Form
- iv) Click on OK.

Data – Validation :-

This option allows to apply the data validity type for the selected cell range.

Required steps:-

- i) Select desired blank cell range
- ii) Click on Data – Validation
- iii) Select desired condition and argument

iv) Click on OK or apply.

*Data – Pivot Table :-

This option allows to prepare quick summarize report for the data of selected range.

Required steps:-

- i) Click on Name column.
- ii) Click on Ascending tool on toolbar
- iii) Select the range of data
- iv) Click on Data – Pivot Table
- v) Click on Next
- vi) Click on Next again
- vii) Click on Layout option
- viii) Drag Name Icon to the Row Area.
- ix) Drag Deposit Icon to the column area three times.
- x) Now double click on Sum of deposit
- xi) Select Max option and click on OK.
- xii) Now Double click on sum of deposit.
- xiii) Select Min option and click on OK.
- xiv) Click on OK.
- xv) Click on Finish.

*Insert – Page Break :-

This option allows to specify the starting of a new page over the sheet.

Required steps:-

- i) Click on desired cell from where page is to be started.
- ii) Click on Insert – Break.

* View – Page Break :-

This option shows the preview of pages with page breaks.

*Insert – Remove Page break :-

It allows to remove the page break definition.

Required steps:-

- i) Click on the cell from where page was broken.
- ii) Click on Insert – Remove Page Break.

*File – Print Area – Set Print Area :-

It allows to define or set a range of cells as printable area.

Required steps:-

- i) Select desired range of cells or sheet to be defined as printable Area.
- ii) Click on File – Print Area – Set Print Area.
- iii) Click on File – Print Preview.

*File – Print Area – Clear Print Area:-

It will remove the definition of printable area.

Required steps:-

- i) Click on File – Print Area – Clear Print Area
- ii) Click on File – Print Preview.

**Required steps to show and print the contents of sheet with Grid line :-

- i) Click on File – Page set up
- ii) Click on Sheet Tab
- iii) Click on Grid line option
- iv) Click on OK.
- v) Click on File – Print Preview.

*Window – Split Window :-

It allows to split the active window in two parts.

Required steps:-

- i) Click on desired Row and column
- ii) Click on Window – Split

*Window – Remove Split :-

It allows to remove the splitter bar from window.

*Window – Freeze Pane :-

It allows to freeze a particular pane of splitted window.

Help – Microsoft Office **Excel Help (F1) :-**
It allows to get help about any topic (Menu-
option/tool related with MS Excel.

Required steps:-

- i) Click on Help - Microsoft Office Excel Help (F1)
- ii) Type desired topic
- iii) Press Enter Key
- iv) Click on desire related topic.

Good Luck.

“Education is growth.
Education is, not a preparation for life;
Education is life itself.”

American Philosopher, Educator, JOHN DEWEY.

