DBMS = Database Management System (Microsoft Excel)

RDBMS = Relational Database Management System (Mysql, Foxpro, Access etc)

M.S Excel 2007 Key Points

- Bill Gates is the author of Microsoft.
- ". xls" Extension name of Excel 93 to 2003 version
- ". xlsx" Extension name of Excel 2007, 2010 & 2016 version
- Working area of m.s excel is worksheet or sheet.

Electronic spreadsheet

- An electronic spreadsheet application accepts data values and makes relationship between the data value in a tabular formula constiting of rows and columns.
- 1 st electronic spread sheet is "visicale".
- Now most popular is ms excel 2007 & lotus 1,2,3

Worksheet

- A work sheet or a sheet is a sheet made up of horizontal rows and vertical columns.
- It is the working areas of M. S Excel 2007 where we can make any planning and project or financial documents of an organisation.
- 10, 48,576 rows and 16,384 columns in a worksheet.
- Columns are name by (A, B, C...)
- Rows are name by (1, 2, 3...)
- 16,384 columns name is XFD.

Workbook

Workbook is the collection of many worksheets.

Formula

Function

• Functions are pre defined formula that takes value or values perform complex calculation by using a specific value in a particular order to give a result that is called function.

Example: -

Sum (+) average, max, min

Click; - A single left click on items or tools

Double click- Double left click on tools

Right click- A single right click on tools

Position- Position or place the mouse pointer on an item

Drag - Point to an item click and hold the mouse left bottom as you move the mouse pointer to a new location then relies the mouse bottom and the complete axon is known as drag.

How to open m.s excel 2007?

Go to Start bottom \rightarrow Go to all program \rightarrow Go to M. S office \rightarrow Select M. S excel 2007 then click.

Cell range

• A selection of more than one adjacent cell is called cell range.

Cell name = Column Name Rows Number

Cell range name = First Cell Name: Last Cell Name

Entire Column Address = ColumnName: ColumnName

G:G C:F

Entire Row Address = RowNumber: RowNumber

4:4 3:6

When a user enter some data in a cell, The cell shows the result. But the formula bar shows entered data.

What shows in the cell = cell value What shows in formula bar = cell data

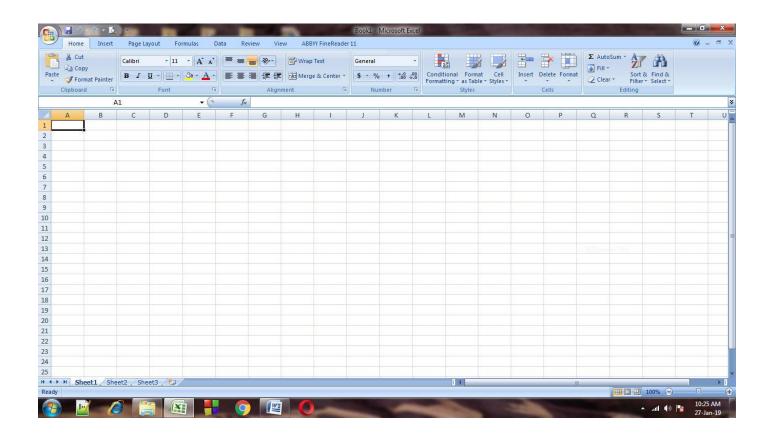
Data Entry in Excel

To create line break inside the Excel cell, double click on the cell and set the keyboard cursor at required position then press Alt +Enter

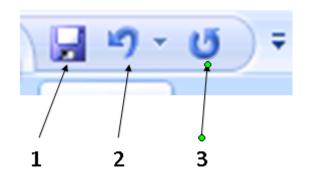
Alt + enter = meaning Press the alt key until click enter Alt → H = meaning Click alt key then click H key

When we enter "=25+10" inside the cell, it shows the result as "35". Here "=25+10" will be shown in the formula bar and "35" will be shown in cell. So what shows in formula bar is "call data" and what shows in cell after clicking enter key is called "cell value".

Image of Excel Worksheet



Quick Access Tool Bar



- 1 Save
- 2 Undo
- 3 Redo

1 Save

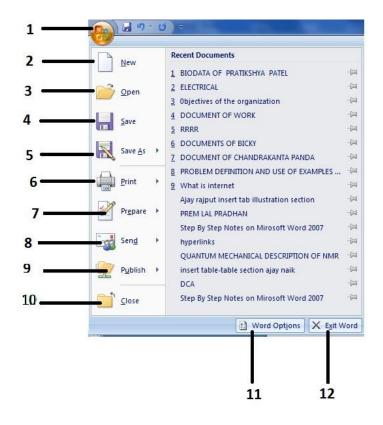
We can use this tool to save a file. It is the shortcut to save. We can use CTRL+S instead.

2 Undo

This tool is undone the action taken by the user in Microsoft Word. Whenever we have done some mistake, we can click this toll to undone it.

3 Redo

This tool is redone the undone action taken by the user earlier in Microsoft Word. Whenever we undone any action and need to get the earlier action back again then we can use "**redo**" tool.



1. Office Button: -

 This button is used to open, save or print and to see everything else you can edit/can do with your document also.

Step: - Go to office button \rightarrow chose that one from the given option, which you want to do.

2. New: -

- This button is used to create new page with new window.
- If you want create a new page then....
- Step: Go to office button → chose new button from the given option → Click on create button from the bottom.

3. Open: -

•This button is used to open the files or folders which already exist in the window explorer.

Step: - Go to office button \rightarrow chose open button from the given option \rightarrow Type a folder name, which you want to open \rightarrow click on open button.

4. Save: -

•This button is used save the documents.

Step: - Go to office button→Click on save →chose location (from left side)→ Give file name→click on save

5. Save as: -

•This button is used to save again, those files already exist in the windows explorer or simply going to says that resave the document.

Step: - Open the file or folder which you want to save again (after changes) \rightarrow Click on Save as option \rightarrow chose location (from left side) \rightarrow Rename file name \rightarrow Click on save.

6. Print: -

This is a way in which soft copy can be converted to hard copy.

Step: -Open those pages which you want to print \rightarrow go to office button \rightarrow click on print tool from the print preview tab \rightarrow Click pages ratio button \rightarrow type the page range in the pages box \rightarrow click dropdown button printer name \rightarrow chose a printer \rightarrow click ok command button.

7. Prepare: -

•By using this option we can set the password to the document for protection. (Encryption of document)

8. Send: -

- •By using this potion we can send the document to others by using E-mail or Internet fax.
- 9. Publish: By using this option we can published the document on the internet, share the document with other user for group work and create document work space.

(*Work Space ରେ Document to internet ରେ link ହେଲେ net ରେ share ହେବ / share ହୋଇଯିବ)

10. Close: -

•This option is used to close the document window.

11. Word option: -

•This option is used to configure word setting.

12. Exit Word: -

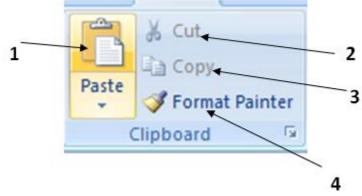
•This option is used to exit from the word application window.

Home tab

There are 5 sections in home tab.

- 1-Clipboard Section
- 2-Font Section
- 3-Paragraph Section
- 4-Style Section
- 5-Editing Section

Clipboard Section



1-Paste 2-Cut

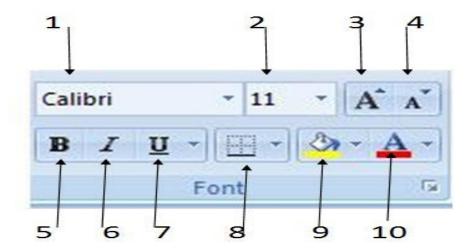
3- Copy 4- Format Painter

Copy: -By the help of these tools we can copy that documents and characters.

Cut: - to move that documents and characters to another place.

Cut/Copy Step: - Select the text ---> go to Clipboard section ---> Click Cut/Copy tool ---> Click the place of page where you want to paste the text ---> Click Paste tool.

Format Painter: - It applies the format & Styles of selected text to the Target Text.



Font Section: -

- 1- Font family
- 2- Font Size
- 3- Grow font
- 4- Shrink Font
- 5- Bold
- 6- Italic
- 7- Underline

- 8- Border
- 9- Fill Color
- 10- Font Color

1-Font Family

• This tool is used to change the style of selected text.

Step- Select the Text→ Go To Font Section → Click on Drop Down Of Font Family → Select a Font Name from the List

2-Font Size

This tool is used to set the text size according to the number shown in dropdown option.

Step: - select the text \rightarrow go to font section \rightarrow click on dropdown of font size \rightarrow select a size from the list.

3-Grow font

• This is used to increase the size of the selected text.

Step: - select the texts \rightarrow go to font section \rightarrow click on grow font tool.

4-shrink font

• This is used to decrease the size of the selected text.

Step- select the text \rightarrow go to font section \rightarrow click on shrink font tool.

5-Bold

• This tool is used to make the selected text **thicker**.

Step: - select the texts \rightarrow go to font section \rightarrow click on bold tool.

6-Italic size

• This tool is used to bands the letters to the right.

Step- select the text \rightarrow go to font section \rightarrow click on italic tool.

7-Underline

This tool is used to put underline to the <u>text</u> with its styles and different colors

Step to put underline: - select the texts \rightarrow go to font section \rightarrow click on underline tool.

Step to put underline style: - select the texts \rightarrow go to font section \rightarrow click on dropdown button of underline tool then choose an underline Style.

Step to put underline color: - select the texts \rightarrow go to font section \rightarrow click on dropdown button of underline tool \rightarrow go to underline color \rightarrow choose an underline color.

Step to withdraw underline: - select the underlined texts \rightarrow go to font section \rightarrow click on underline tool.

8. Border

This tool is used to customize the borders of the selected cells or text.

Step- Select the text \rightarrow Go to home tab on Font section \rightarrow click on boarder tool \rightarrow select a border style \rightarrow apply

9- Fill color

This tool is used to highlight the background of text with different color.

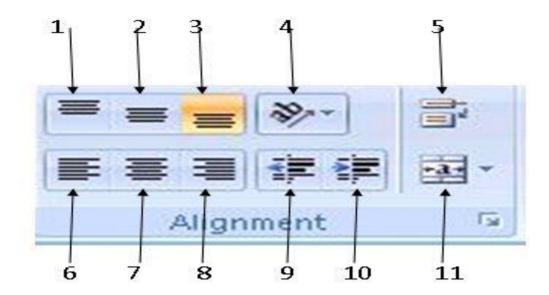
Step – select the text \rightarrow go to font section \rightarrow click on drop down button of text highlight \rightarrow select a color from the list \rightarrow Select the Target Text.

10- Font Color

This tool is used to apply the color to the text.

Step- select the text \rightarrow go to font section \rightarrow click on drop down button of font color \rightarrow select a color from the list.

1. Alignment Section: -



1. Top align

• Align text to the top of the cell.

Step: - Select the cell → Go to home tab → Go to Alignment Section → Click on top align tool

2. Middle align

• Align text so that it is centered between the top and bottom of the cell.

Step: - Select the cell → Go to home tab → Go to Alignment Section → Click on middle align tool

3. Bottom align

Align text to the bottom of the cell.

Step: - Select the cell → Go to home tab → Go to Alignment Section → Click on bottom align tool

4. Orientation

Through this tool, text can be rotate diagonally and vertically.

Step: - Select the cell \rightarrow Go to home tab \rightarrow Go to Alignment Section \rightarrow Click on Orientation tool \rightarrow Chose a orientation style option.

5. Wrap text

This tool is used to display the contents (text) in a many lines within a cell.

Step: - Select the cell \rightarrow Go to home tab \rightarrow Go to Alignment Section \rightarrow Click on wrap text tool.

6. Align text left

• Align text left of left alignment is a way of arranging the text from left of the margin.

Step: - Select the cell → Go to home tab → Go to Alignment Section → Click on align text left tool

7. Center align

• Center alignment is way of arranging the text in to center one i.e. to say the text will be aligning in center area of the page.

Step: - Select the cell → Go to home tab → Go to Alignment Section → Click on Central align tool

8. Align text right

• Align text right or right alignment is a way of arranging the text from right of the margin.

Step: - Select the cell → Go to home tab → Go to Alignment Section → Click on top align text right tool

9. Decrease indent

• The decrease indent bottom reverses of increase indent operation.

10. Increase indent

• The distance increase between the current paragraph and left page margin.

11. Merge and center

- Convert more cells in to single cell.
- Use CTRL while selection of multiple cell for multiple merging.

Data Entry & formating Rules In Excel

After each entry you should use TAB to navigate to the right side cell & for left side cell use Shift + Tab. Never use arrow keys as much as possible. Use Enter key to bring down the selector & shift + enter key for bring it up. It will saves your time while data entry.

Table Heading: Should be Align Center and top.
 Serial No: Should be align center and middle.
 Name: Should be align left and middle.
 Numbers: Should be align center and middle.
 Table caption: Should be center and center.

Single Merging: Select 2 or more cell → Then click "Merge and center"

Multiple Merging Steps: Select 2 or more cell \rightarrow Press and hold CTRL Key \rightarrow Select other cells to merge \rightarrow Then click "Merge and center" for multiple merging.

Number Section: -

1. Number Format: -

This tool is used to change the format of the value of a cell as percentage, currency, date...etc.

Step: - Select the cell → Go to home Tab → Go to number section → chose a format from the drop down button of number format.(Such as Percentage, Long date, Short date.... etc)

2. Accounting Number Format: -

Through this tool, an alternate currency format can be chose.

Step: - Select the cell \rightarrow Go to home Tab \rightarrow Go to number section \rightarrow chose a format for the value from option

3. Percent Style: -

Value of the cell can be display as percentage.

Step: - Select the cell \rightarrow Go to home Tab \rightarrow Go to number section \rightarrow Click on percent style tool.

4. Comma:-

This tool is used to separate the thousand, of the cell value.

Step: - Select the cell \rightarrow Go to home Tab \rightarrow Go to number section \rightarrow Click on Comma tool.

5. Increase Decimal: -

Through this tool, decimal places can be increase by after the decimal point.

Step: - Select the cell \rightarrow Go to home Tab \rightarrow Go to number section \rightarrow Click on Increase Decimal Tool.

6. Decrease Decimal: -

Through this tool, decimal places can be decrease.

Step: - Select the cell \rightarrow Go to home Tab \rightarrow Go to number section \rightarrow Click on Decrease Decimal Tool.

Style Section: -

1) Conditional Formatting: - It shows the value of the cell, according to the condition.

Highlight Cells Rule: -

Greater Than: -

This sub tool is used to show those no. which greater than the user define no.

Step: - Select the cells \rightarrow Go to Home tab \rightarrow Go to style section \rightarrow Click on drop down button of Conditional Formatting tool \rightarrow Click on highlight cells rule \rightarrow click on "greater than" (a box will be appear) \rightarrow Type a number in box & select a color right side \rightarrow click on "ok"

Less than: -

This sub tool is used to show those no. which smaller than the user define no.

Step: - Select the cells \rightarrow Go to Home tab \rightarrow Go to style section \rightarrow Click on drop down button of Conditional Formatting tool \rightarrow Click on highlight cells rule \rightarrow click on "less than" (a box will be appear) \rightarrow Type a number in box & select a color from right side \rightarrow click on "ok"

Between: -

no.

This sub tool is used to show those no. which lying between the user define two

Step: - Select the cells \rightarrow Go to Home tab \rightarrow Go to style section \rightarrow Click on drop down button of Conditional Formatting tool \rightarrow Click on highlight cells rule \rightarrow click on "Between" (a box will be appear) \rightarrow Type two numbers in different boxes & select a color right side \rightarrow click on "ok"

How to copy a Table from one sheet to another

Select the table \rightarrow click copy from clipboard section \rightarrow click a cell from another sheet \rightarrow

Then click the dropdown button of paste tool from clipboard section \rightarrow choose column width radio button \rightarrow click OK

Then click the dropdown button of paste tool again from clipboard section \rightarrow choose value radio button \rightarrow click OK

Then click the dropdown button of paste tool from clipboard section \rightarrow choose format radio button \rightarrow click OK

How to Link a Table data to another Table

For Linking Tables in excel we need at least two tables, one for source data (called Source Table) another for target data (called Target Table). When we change the data in source table, the data of target table will be changed.

Steps:

Click on the Cell of the common field of Target Table \rightarrow type "=" sign \rightarrow click the worksheet where source table is created \rightarrow click that cell from which you want to bring data to the target table \rightarrow click Enter.

How to Insert a picture in a Table

Set the Column width of a column where you want to insert the picture \rightarrow Select the rows of the table \rightarrow Go to Home Tab, Cells Section and click the Format Tools \rightarrow Choose Row Height \rightarrow type 60 in it \rightarrow click ok.

Go to Insert tab, Illustration section and click picture → select a picture and click insert command button

 \rightarrow go to format tab, size section \rightarrow type 1 in height combo box \rightarrow enter \rightarrow resize the picture according to the cell size.

How to Insert a Chart in a worksheet

Select Table \rightarrow go to Insert Tab, Chart Section \rightarrow Choose a suitable chart category \rightarrow choose a Chart option.

How to separate First Name, Middle Name & Surname using Text to Column

Select Table \rightarrow go to Insert Tab, Chart Section \rightarrow Choose a suitable chart category \rightarrow choose a Chart option.

How to remove duplicate values in excel

Select Table \rightarrow go to Insert Tab, Chart Section \rightarrow Choose a suitable chart category \rightarrow choose a Chart option.

How to validate a data (for Mobile Number Validation)

Select Cells which you want to validate \rightarrow go to Data Tab, Data Tools Section \rightarrow Click the Dropdown List of Data Validation tool \rightarrow Then Choose the Data Validation option \rightarrow In the data validation window \rightarrow go to Setting Tab and click the dropdown of "allow" and choose a validation option (Example Whole Number) \rightarrow Set data as "Between" \rightarrow Set "Minimum" as 1000000000 and \rightarrow Set "Minimum" as 9999999999 \rightarrow Go to Input Message Tab \rightarrow Type in the "Title" box as Note: \rightarrow Type a Message in "Input Message box" \rightarrow go to Error Alert Tab \rightarrow Choose Error Style dropdown as "Stop" \rightarrow type a title for the alert message \rightarrow Type an error Message in the "Error Message" box \rightarrow Click OK.

Data Validation Type and Purpose

Any Value: To Cancel the validation

Whole Number: To Apply validation between two whole number
 Decimal: To Apply validation between two decimal number

Date: To Apply validation between two Dates
 Time: To Apply validation between two Times

• Text Length: To apply validation with no of text allowed to write in a cell (letter & number)

List: To apply a list to validate data. Means we write a list or the range address

of a list in the source box

EXCEL FUNCTION

Date and time function

	Α	В	С	D	E	F	G	Н
1				date	time	hour	minute	second
2	2018	12	23	23/12/2018	9:15:20	9	15	20
3	2017	10	12	12/10/2017	11:55:12	11	55	12
4	2018	4	8	08/04/2018				
5								

Date()

• Its returns the date or serial number of the date.

syntax

=date(yyyy,mm,dd) enter

Ex

=date (2018,12,23) enter

Result

23-dec-2018 (if the cell is in date format)

Or

43457 (if the cell is in number format)

Day()

• It returns the day from a day.

Syntax

=day("mm/dd/yyyy")enter

=day(cell address of the date)enter

Ex

=day("12/23/2018")enter

=day(D3)enter

Result

1. 23

2. 12

Month()

• It returns the month from the day.

Syntax

=month("mm/dd/yyyy")enter

=month(cell address of the date)enter

Ex

=month("03/30/2018")enter

=month(D2)enter

Result

1. 3

2. 12

Year()

• It returns the year from the day.

Syntax

=year("mm/dd/yyyy")enter

Ex

=year("03/30/2018")enter

=year(D2)enter

```
1. 2018
  2. 2018
  Datevalue()
      • It returns the serial number of the date.
  Syntax
  =datevalue("mm/dd/yyyy")enter
  =datevalue("25/07/1996")enter
  Result
  35217
  Days360()
      • It returns the number of days between two date based on 360 days per year this function is
         only use to calculate payments.
  Syntax
  =days360("start date","end date")enter
  =days360a(start date cell address, end date cell address)enter
  Ex
  =days360("3/1/2018","3/5/2018")enter
  =days360(D3,D4)enter
  Result
  1. 120
  2. 176
  3.
   Today()
         It returns the current date or serial number of the current date depending on the cell
         formatting.
    Syntax
    =today()enter
    Ex
    =today()enter
   Result
   03/30/2018
   Or
   43189
  Weekday()
      • It returns the day of the week corresponding to a date.
      Syntax
 =weekday(cell address of the date)enter
 Ex
 =weekday(D2)enter
 Result
  1
 Now()
    It source the current date and time.
Syntax
=now()enter
Ex
```

=now()enter

```
03-04-18 7:48
    Time()
   • It returns the valid time from given hour, minute and second.
    Syntax
    =time(HH,MM,SS)enter
     =time(9,15,20)enter
     =time(F3,G3,H3)enter
    Result
   1. 9:15 am
   2. 11:55 am
   Hour()
   • It returns the hour from a date.
 Syntax
=hour(cell address of time)enter
Ex
=hour(E2)enter
Result
Minute()
   • It returns the minute from a given time.
Syntax
=minute(cell address of the time)enter
=minute(E2)enter
Result
15
Second()
   • It returns the second from a given time.
Syntax
=second(cell address of time)enter
=second(E2)enter
Timevalue()
   • It returns the percentage of the time already covered in that day.
Syntax
=timevalue("hh:mm:ss")enter
=timevalue("9:15:20")enter
Result
```

9

0.385648148

Text and data function

	Α	В	С
1	AloK	Kumar	SaHu
2	Bikas	rout	
3	arun Sharma		
4	65	2 1	
5	66	manas	
6	jai jagannath		
	I have a best friend my		
	best friend is very good my		
7	best friend name is	24	

Text and Data Function

Upper()

• It converts the text in to "UPPER CASE".

Syntax

=upper(cell address of the text) enter

Fx

=upper(B2) enter

Result

ROUT

Lower()

• It converts the text in to "lower case".

Syntax

=lower(cell address of the text)enter

Ex

=lower(A2)enter

Result

bikas

proper()

• This function converts the text to Capitalize Each Word.

Syntax

=proper(cell address of the text)enter

Ex

=proper(A3) enter

Result

Arun Sharma

Char()

• It returns a character specify by its ASCII code.

Syntax

=char(ASCII code)enter

=char(cell address)enter

Ex

=char(65)enter

=char(A5)enter

Result

- 1. A
- 2. B

Clean()

• It removes the non-printable character of a cell.

Syntax

=clean(cell address of the text)enter

Fx

=clean(B4)enter

Result

21

Len()

• It returns the text length of a cell.

Syntax

=len(cell address)enter

Ex

=len(A1)enter

=len(A2)enter

Result

- 1. 4
- 2. 5

Left()

• It returns the text length of a cell.

Syntax

=left(cell address, no. of character to display)enter

Ex

=left(A2,3)enter

=left(A1,2)enter

Result

- 1. Bik
- 2. Al

Right()

• It returns the specify number of character from the right side.

Syntax

=right(celladdress, no of character to display)enter

Fx

=right(A1,2)enter

=right(A2,3)enter

Result

- 1. ok
- 2. kas

ASCII

American standard code for information interchange

• 256 character possible codingly ASCII.

Mid()

• It returns the specify number of character from a specified position.

Syntax

=mid(cell address,specified position, no. of character to show)enter

Fx

=mid(A2,2,3)enter

Result

lok

Trim()

- It removes the unwanted space of the text
- (it removes the space before the text and after the text)
- As you know that the spaces can't be seen, so spaces are invisible.

Syntax

=trim(cell address of the text) enter

Ex

=trim(B5)enter

Result

Manas

(the additional space is removed)

Concatenate()

• It joined the text enter in different cell.

Syntax

=concatenate(cell address,"-",cell address)enter

Ex

=concatenate(A1,"-", B1)enter

=concatenate(A2,"-",B2)enter

Result

- 1. Alok Kumar
- 2. Bikas rout

Rept()

• This function repeats specify text in a given number of time.

Syntax

=rept("text to repeat","no of time to repeat")enter

Ex

=Rept("jai jagannath",108)enter

=Rept(capital(A6))enter

Result

- 1. Jai jagannath......108
- 2. JAI JAGANNATH

Value()

When a number is returns as text in a cell then this function convert that numerical text value as number.

Syntax

=value(cell address)enter

Ex

=value(B7)enter

Result

24

Find()

We can find a particular text position from the text of a cell.

Syntax

=find("text to find ","Cell address where to find the text ","start no.")enter

Ex

=find("best friend",A7,1)enter

Result

10,24,48

Math or trigonometric function

	Α	В	С
1	-51	2.5	25
2	-9	1.4	4.76
3	24	3	5.74
4	5	4	95

Abs()

• Returns the absolute value of the number.

Syntax

=abs(cell address)enter

Ex

=Abs(A1)enter

=Abs9A2)enter

Result

1. 51

2. 9

Even()

• It returns the number by rounding-up to its nearest even integer.

Syntax

=Even9cell address)enter

Ex

=Even(B1)enter

=Even(B2)enter

=even(B3)enter

Result

1. 4

2. 2

3. 4

Odd()

• It returns the number by the rounding to it's nearest to its odd number.

Syntax

=odd(cell address)enter

Ex

=odd(B1)enter

=odd(B2)enter

=odd(B3)enter

- 1. 3
- 2. 3
- 3. 3

Int()

• It returns the number by rounding-down to its nearer integer.

Or

• It returns the integer of a given number.

Syntax

=Int(cell address)enter

Ex

- =Int(B1)enter
- =Int(C3)enter

Result

- 1. 2
- 2. 5

Round()

- It returns the number
- By rounding of to the specify digit if the decimal value is greater the and equal to 0.5
 - by rounding down to the specify digit if the decimal value is less then 0.5

syntax

=Round(cell address, no of decimal digit to show)enter

Ex

- =Round(B1,0)enter
- =Round(C2,1)enter

Result

- 1. 2
- 2. 4.7

Roundup()

• It returns the number by rounding of to its left most digit with adding 1.

Syntax

=Roundup(cell address,no of decimal digit to show)enter

Ex

- =Roundup(B1,0)enter
- =Roundup(C3,1)enter

Result

- 1.3
- 2.5.8

Rounddown()

It returns the number by rounding of to its left most digit with adding 0.

Syntax

=Rounddown(cell address, no of decimal digit to show)enter

Fx

- =Rounddown(B2,0)enter
- =Rounddown(C3,1)enter

Result

1.2 2.5.7

Fact()

- It returns the factorial of the number.
- If we want to calculate the factorial of file then we can calculate as follow.

1*2*3*4*5=120

Syntax

```
=Fact(cell address or number)enter
=Fact(A4)enter
Result
120
Lcm()
It returns the least common multiple of the integer.
Syntax
=Lcm(cell1,cell2,cell3.....)enter
Ex
=Lcm(A4,C1,C4)enter
Result
475
Power()
                 It returns the power of a number we can also use zor (x^y=x^y) mark to calculate the power
       of number insured of using power function.
Syntax
=Power(base value cell address, power cell address)enter
=Power(B3,B4)enter
=Power(B3^B4)enter
Result
1.81
2.81
Product()
                 It returns the product of the number if we want to calculate the product value of 3,5,4
       then the value will be 3*5*4=60
Syntax
=Product(cell1,cell2,cell3.....)enter
Ex
=Product(B3,B4,A4)enter
Result
60
Pi()
                 It returns the numerical value of the mathematical constant pi in accuracy of to 15 digit.
Syntax
=Pi()enter
Ex
=Pi()
Result
3.141593
Sqrt()
                 It returs the square root of a number.
Syntax
=Sqrt(cell address)enter
=Sqrt(B4)enter
Result
2
Sum()
```

• This function adds all the number in a range.

Syntax

=sum(range)

Ex

=Sum(A4:C4)enter

Result

14.8

Statistical function

	Α	В
1	7	50
2	9	40
3	11	90
4	20	20
5	5	RAM
6		
7		Χ

Average()

• It returns the average of the number in a range.

Syntax

- =Average(range)enter
- =Average(cell1,cell2,cell3.....)enter
- =Average(range,cell number)enter

Ex

=Average(A1:A5)enter

Result

10.4

Averagea()

• It calculate the averagea of the number in a range by ignoring non-numerical dat.

Syntax

=Average(range)enter

Ex

=Average(B1:B7)enter

Result

34.28

(it ignores the value of x and result will be 34.28)

Count()

• It count the number of cells having only number in a range.

Syntax

=Count(range address)enter

Fx

=Count(B1:B7)enter

Result

4

Counta()

• It count the number of cell that are not empty in a range.

Syntax

=Counta(range address)enter

Ex

=Counta(B1:B7)enter

Result

6

Countblank()

• It count the empty cell in a range .

Syntax

=countblank(range address)enter

Ex

=countblank()enter

Result

Min()

• It returns the minimum value in a range.

Syntax

= min(range address) enter

Ex

= min(B1:B7)enter

Result

20

Max()

• It returns the maximum value in a range.

Syntax

=max(range address) enter

Ex

=max(B1:B7)enter

Result

90

	А	В	С	D	E	F	G
	name	Gender	eng	hindi	percentage	reward	village
1	Alok	М	25	54	52	500	snp
2	Bikas	М	45	66	48	500	bdn
3	Suresh	М	67	24	68	400	khr
4	Ajay	М	34	32	75	400	snp
5	meena	F	91	76	87	500	bdn
6	neha	F	86	21	31	400	snp
7	Sanju	F	72	52	89	500	snp

Countif()

• It counts the number of cells within a range that need the given criteria it means if a condition given by user becomes true then it will count that cell.

Syntax

=countif(range,criteria)enter

Ex

=countif(B1:B7,"M")enter =countif(B1:B7,"F")enter

- 1. 4
- 2. 3

Countifs()

• Count the number of cells in a given set of ranges that need the given set of criteria it means it count only that cells which need the multiple criteria given by the user.

Syntax

```
=countifs(range1,criteria 1,range2,criteria 2...)enter
```

Ex

=countifs(G1:G7,"snp",B1:B7,"M",F1:F7,500)enter

Result

1

Sumif()

• It calculates the cell value of a range defined by user if a condition is true.

Syntax

=sumif(condition range, criteria, sum range)enter

Ex

=sumif(G1:G7,"snp",F1:F7)enter

Result

1800

Sumifs()

It calculate the cell value of a range defined by user if the given set of conditions becomes true.

Syntax

=sumifs(sum range,condition range1,criteria1,condition range2,criteria2)enter

Fx

=sumifs(F1:F7,G1:G7,"snp",B1:B7,"M")enter

Result

1800

Averageif()

• It returns the average from the range defined by user if the conditiom is true.

Syntax

=averageif(condition range criteria, average range)enter

Ex

Averageif(G1:G7,"snp",F1:F7)enter

Result

450

Averageifs()

• It calculate the average value of range defined by user if the given set of condition becomes true.

Syntax

= averageifs(average range,condition range1,criteria1,condition range 2,criteria2) enter

Ex

=averageifs(F1:F7,G1:G7,"snp",B1:B7,"F")enter

Result

450

Logical function

And()

• It returns "true" if all the argument logical function statement are true. But if one of the statement or argument is "false" than it returns "false".

Syntax

=and(argument1,argument2...)enter

Ex

```
=and(2+2=4,3*5=15)enter
=and(2+2=4,3*5=15,7+1=9)enter
=and(A1+B1=4,A2*B2=15,A3+B3=9)enter
```

Result

- 1. True
- 2. False
- 3. False

Or()

• It returns "true" if any of the given argument is true but returns false if all the argument are false.

Syntax

```
=or(argument 1,argument 2...)enter
```

Fx

```
=or(2+2=4,3*5=15)enter
```

=or(2+2=4,3*5=15,7+1=9)enter

=or(A1+B1=4,A2+B2=15,A3+B3=9)enter

=or(2+2=5,4+3=7,7+1=9)enter

Result

- 1. True
- 2. True
- 3. True
- 4. False

If()

• This function returns a value if a specify condition is true and returns another value if the condition is false.

Syntax

=if(logical text or criteria, value if true, value if false)enter

Ex

```
=if(c2>600,"over payment","correct payment")
```

=if(c2<600,"correct payment","over payment")

Result

- 1. In D2=correct payment
- 2. In D4 = over payment

Not()

• It returns false is the argument true and if returns true is the argument is false.

Syntax

= not(argument) enter

Ex

=not(2+2=4)enter

=not(A1+B1=4)enter

=not2+2=5)enter

- 1. False
- 2. False
- 3. True

Nestedif()

This function is used to mix multiple function to obtain a result. =if(logical test,value if true,value if false)enter

Ex

More than 60% paid 5000 rupees More than 50% paid 3000 rupees =if(C2>50,3000,if(C2>60,5000,0))enter