

Chapter 1

Introduction to MS Excel

Microsoft (MS) Excel is a spreadsheet application developed by Microsoft. Excel is one of the most widely used spreadsheet application and it is part of Microsoft Office suite. A spreadsheet is basically a matrix of rows and columns. It is useful in entering, analyzing, editing and storing data. Using Excel, you can perform arithmetic operations with numerical data such as addition, subtraction, multiplication and division. Also you can sort numbers and use simple financial, mathematical and statistical formulas. To display numbers graphically, you can use Excel to create a chart. In this book, we are using MS Office suite version 2007 to explain Excel, PowerPoint and Picture Manager and all the given figures and examples are accordingly.

STARTING EXCEL

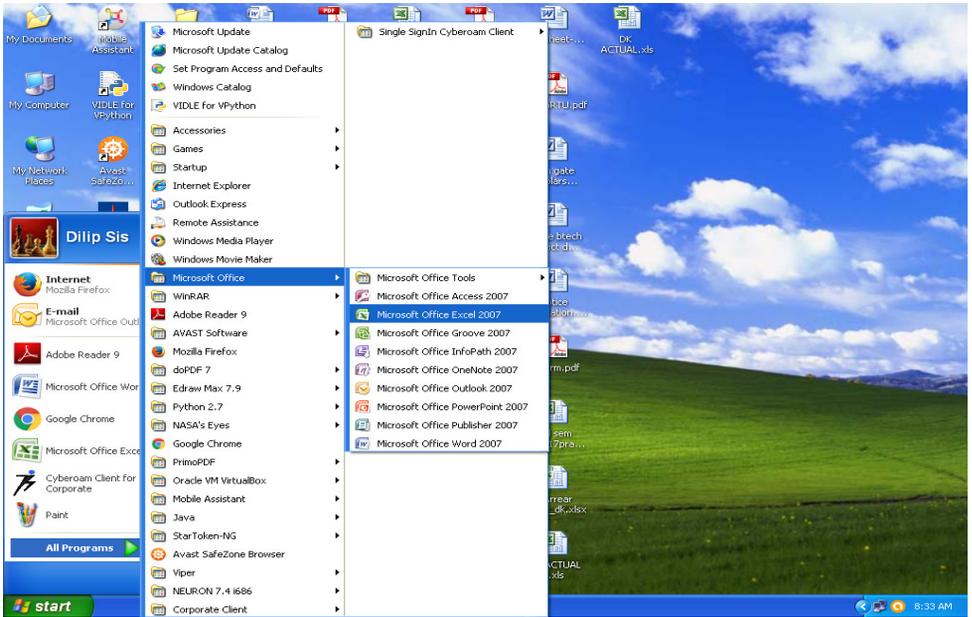
You start Excel in the same way that you start every application in Microsoft Office Suite like Word, PowerPoint, Access etc. You can start Excel from the start menu as follows:

Step 1: Click on the **Start** button on the task bar at the bottom-left corner of the screen

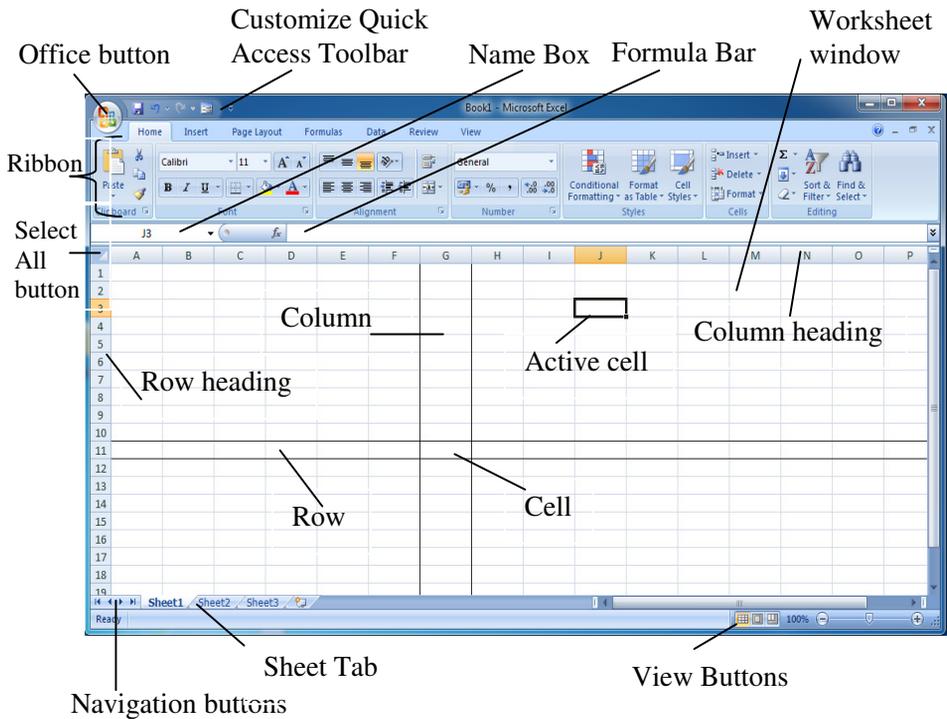
Step 2: Click on **All Programs** option from the menu

Step 3: Select **Microsoft Office** from the list of programs

Step 4: Click on **Microsoft Office Excel 2007**



This will launch the MS Excel 2007 application and the following excel window will be shown.



1.1 COMPARISON BETWEEN MS-WORD AND MS-EXCEL

Microsoft Excel and Microsoft Word are two application software programs in the Microsoft Office suite. Though they are made to work together, they each have different strengths. Word is first and foremost a word processor, while Excel is primarily for numeric calculations. Excel is a spreadsheet program that is used to record and analyze numerical data. Word, on the other hand, is word processing application that is used to write documents like letters or essays where text formatting is very essential to provide a printable document that can be read very easily.

You can insert tables in a Word document or write whole paragraphs inside a single Excel cell and both applications can create printable documents. Therefore, it is possible to use one to simulate the function of the other to some extent. But each application has strengths that make them well suited to the tasks they perform. The font, paragraph, and page formatting options of Word makes it easy to create documents, which is quite difficult in Excel. Whereas Excel has ability to analyze, compute formulas and conditional statements. This can be as simple as the sum of all the entered data, taking their average, to even more complex equations. You would not find this type of capability within Word.

Table 1: Comparison between MS-Word and MS-Excel

S. No.	MS-Word	MS-Excel
1	Word processing application	Spreadsheet application
2	Use for writing letters, essays	Use to create tabulated documents
3	Use where text formatting is essential	Use to record and analyze numerical data
4	Excel tables can be inserted inside a Word document	Word document can not be inserted inside a Excel table
5	Have advanced formatting facilities	Does not have advanced formatting facilities
6	Cannot write custom equations and formulas	Can write custom equations and formulas

1.2 WORKSHEETS AND WORKBOOKS

When you start Excel, you will automatically start in a new, blank workbook. An ordinary Excel file is called a “Workbook” that can contain different things such as worksheets, chart sheets and small programs. Each workbook can hold one or more worksheets. An Excel worksheet is a single spreadsheet that contains matrix

of rows (designated by numbers) and columns (designated by letters). The intersection of a row and a column is called a cell. Each cell has a cell address that is the column letter and the row number. Each cell can contain number, text or formula. A cell can also reference another cell in the same worksheet, the same workbook or a different workbook. The worksheets in a workbook are accessible by clicking the worksheet tabs, just above the status bar. By default, Excel provides three worksheets in a workbook with name as Sheet1, Sheet2, and Sheet3. You can insert additional worksheets or delete them as needed. You can also change the number of worksheets that appear by default in a new workbook.

1.3 CREATING A WORKBOOK

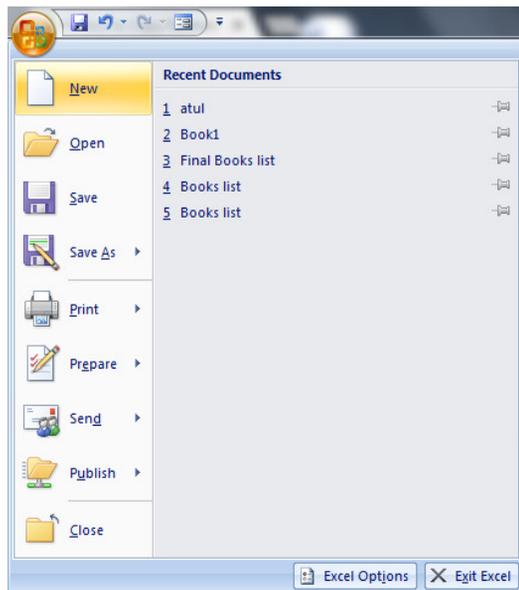
If you're working in MS Excel 2007 and want to begin work in a new Excel file, you can create a new workbook using following steps:

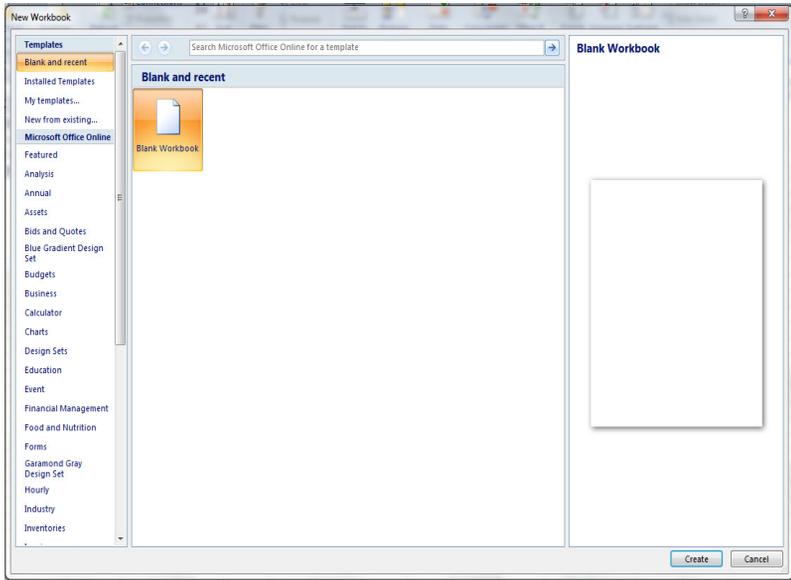
Step 1: Click the **Office** button

Step 2: Choose **New**

Step 3: Click the **Blank Workbook** icon

Step 4: Click the **Create** button





1.4 OPENING

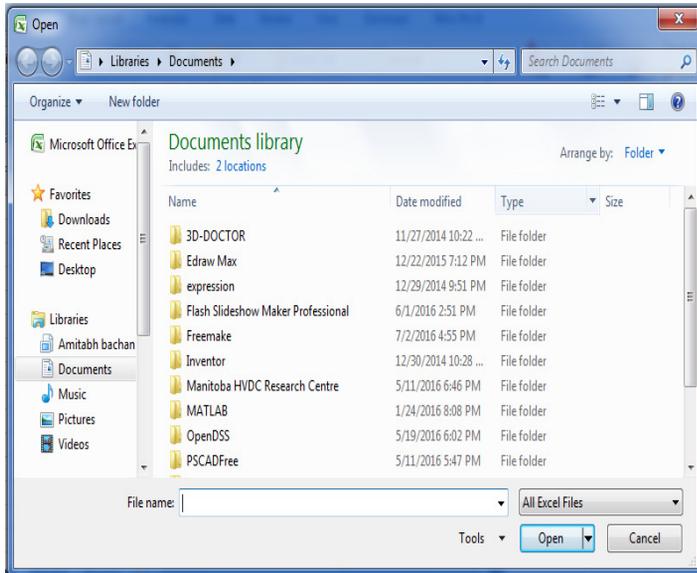
To open an existing workbook, you can use following steps:

Step 1: Click on the **Office** button and then click **Open**

Alternatively, use Open command (Ctrl + O)

Step 2: In the Open dialog box, locate and double-click the workbook file that you want to open





Alternatively you can go to window explorer and find out the file you want to open and double click on it.

1.5 LABELING

The letters and numbers of the columns and rows headings called labels, are displayed in gray boxes across the top and left side of the worksheet. Column headings are labelled with alphabetic characters, beginning with column A. Rows headings are labelled with numbers, beginning with row 1. Generally a workbook is labeled by three worksheets as Sheet1, Sheet2, and Sheet3. You can change the labeling of worksheets using renaming, inserting new sheets, deleting sheets and merging sheets etc.

1.6 FORMAT WORKBOOK TABS

When you open a new workbook, or add new worksheets to an existing workbook, Excel uses a generic name as Sheet1, Sheet2, Sheet3, and so on for each sheet. As you build out a workbook, you'll probably need to rename these sheets to keep things organized. The easiest way to rename a worksheet is to double click its name. This will highlight the text of the name, and you can then type a new name. You can also right click on a worksheet and choose Rename from the pop-up menu. There are a few rules to keep in mind when you rename tabs. Excel worksheet names have to be at least one character long, and can't be longer than 31 characters. Also you can't have two sheets with same name in the

same workbook. Some characters are not allowed in worksheet names, such as question marks, square brackets, asterisks, apostrophes, forward and backward slashes, periods and colons. You can also change the color of a worksheet tab. To change the color, right click and choose tab color from the menu, then choose a color of your choice.



1.7 REPOSITION SHEETS

It's easy to move or copy a whole worksheet to another location in a workbook. The calculations or charts data might become inaccurate during move of worksheet. To reposition the sheet use following steps:

Step 1: Select the worksheets that you want to move or copy

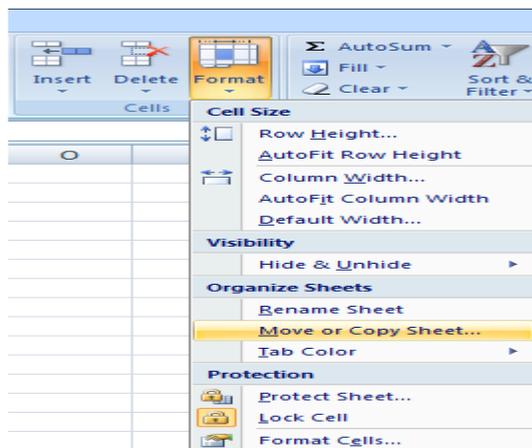
Step 2: On the **Home** tab, in the **Cells** group, click **Format**, and then under **Organize Sheets**, click **Move or Copy Sheet**

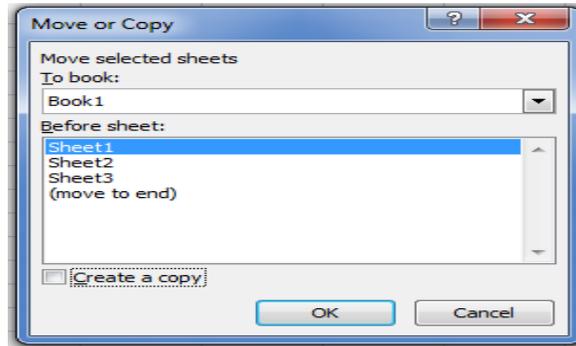
Alternatively, you can right click and select **Move or Copy** from pop-up menu

Step 3: In the **Move or Copy** dialog box, in the **Before sheet list**, do one of the following:

- Click the sheet before which you want to insert the moved or copied sheets
- Click **move to end** to insert the moved or copied sheets after the last sheet in the workbook and before the **Insert Worksheet** tab

Step 4: To copy the sheets instead of moving them, in the **Move or Copy** dialog box, select the **Create a copy** check box





When you create a copy of the worksheet, the worksheet is duplicated in the workbook, and the sheet name indicates that it is a copy. For example, the first copy that you make of Sheet1 is named Sheet1 (2). We can also move or copy worksheets to another workbook. For this, we need to make sure that the target workbook is open in the same instance of MS Excel. All other steps are similar as above except in the **Move or Copy** dialog box, from **To book** list, select the workbook to which you want to move or copy the selected sheets.

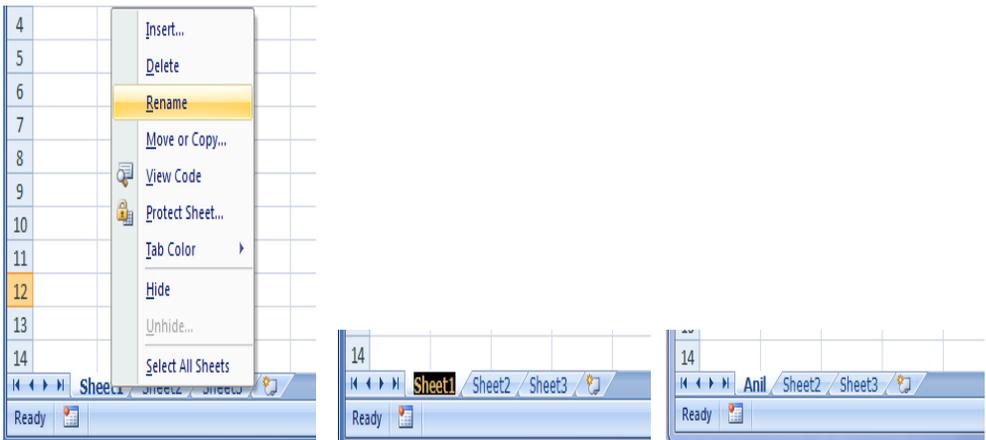
1.8 NAMING

To name (or rename) a worksheet use following steps:

Step 1: Right click on the worksheet tab which you want to rename

Step 2: select **Rename** from the pop-up menu

Step 3: Type new name and press ENTER (Anil in our example)

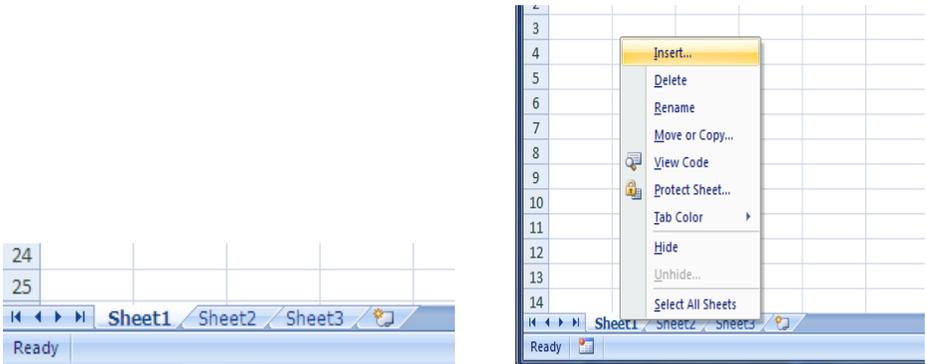


1.9 ADDING

To add a new worksheet at the end of the existing worksheets, click the Insert Worksheet tab at the bottom of the screen. To insert a new worksheet before an existing worksheet use following steps:

Step 1: Right click on the worksheet tab before which you want to add a new worksheet

Step 2: select **Insert** from the pop-up menu



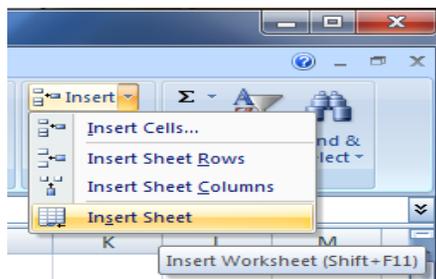
Another way to insert a new worksheet before an existing worksheet:

Step 1: Select the worksheet tab before which you want to add a new worksheet

Step 2: Select **Home** tab

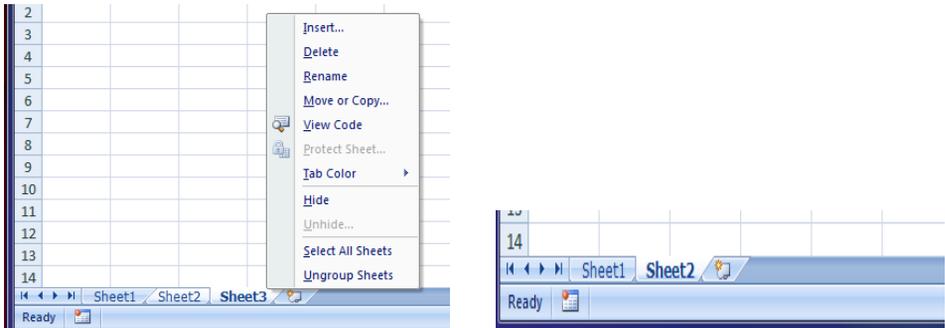
Step 3: Click **Insert** in **Cells** group

Step 4: Click on **Insert Sheet**



1.10 DELETING

To delete a worksheet, right click on the worksheet tab at the bottom of the screen which you want to delete and select **Delete** from the pop-up menu.



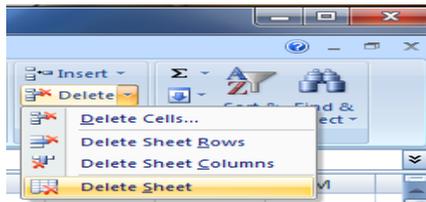
Another way to delete a worksheet:

Step 1: Select the worksheet tab which you want to delete

Step 2: Select **Home** tab

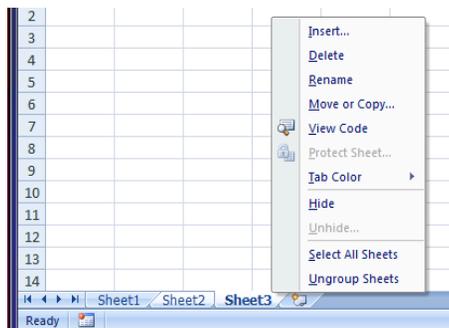
Step 2: Click **Delete** in **Cells** group

Step 3: Click on **Delete Sheet**



1.11 HIDING

To hide a worksheet, right click on the worksheet tab at the bottom of the screen which you want to hide and select **Hide** from the pop-up menu.



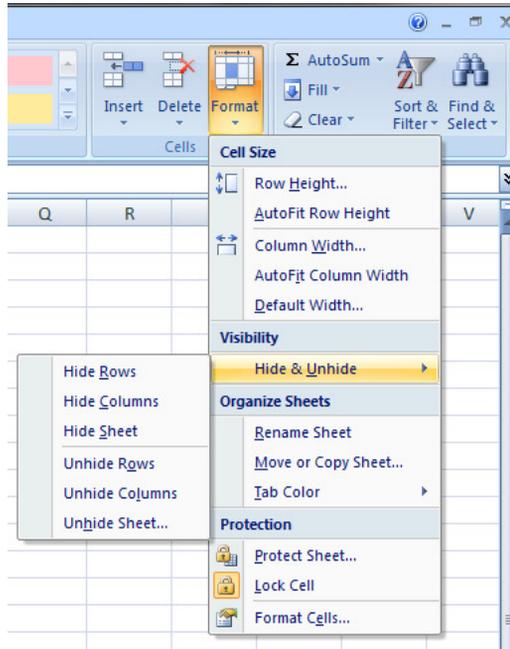
Another way to hide a worksheet:

Step 1: Select the worksheet tab which you want to hide

Step 2: Select **Home** tab

Step 3: Click **Format** in **Cells** group

Step 4: Under **Visibility**, go to **Hide & Unhide** option, and then click **Hide Sheet**



1.12 UNHIDING

To unhide the hidden worksheet, use following steps:

Step 1: Right click on the worksheet tab

Step 2: Select **Unhide** from the pop-up menu

Step 3: Choose the worksheets you want to unhide from the list and click ok

Another way to Unhide a worksheet:

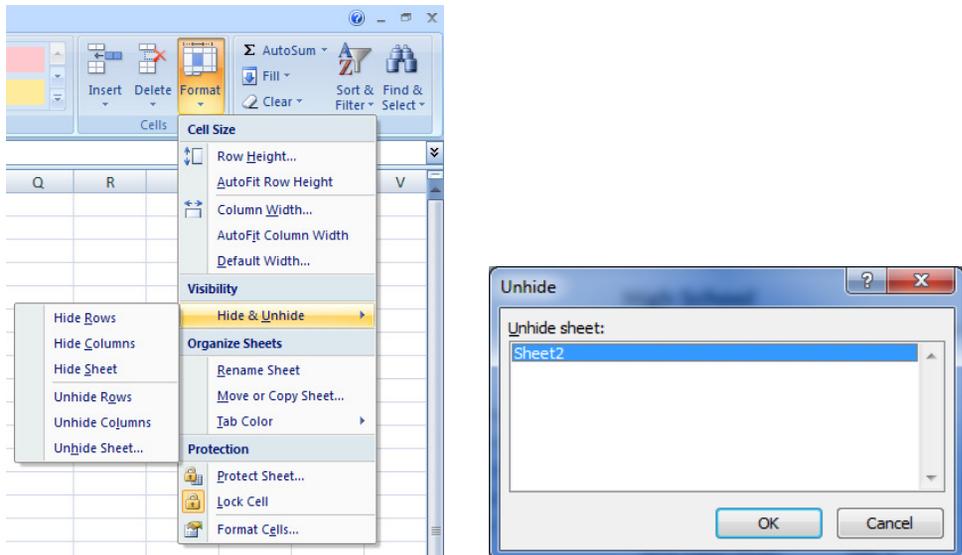
Step 1: Select the worksheet tab

Step 2: Select **Home** tab

Step 3: Click **Format** in **Cells** group

Step 4: Under **Visibility**, go to **Hide & Unhide**, and then click **Unhide Sheet**

Step 5: Choose the worksheets you want to unhide from the list and click ok



1.13 SAVING WORKBOOKS AND WORKSHEETS

You can save a workbook for the first time by using following steps:

Step 1: Click on the **Office** button and then click **Save**

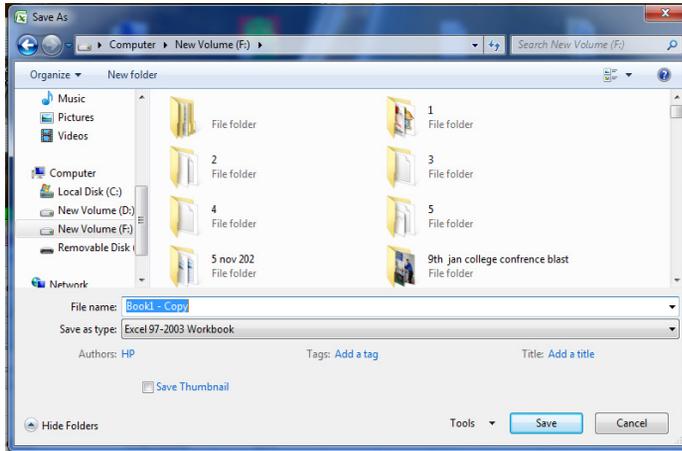
Step 2: In the Dialog Box select the location where you want to save the file

Step 3: Type the file name

Step 4: Click on **Save**

Alternatively a workbook can be saved by clicking on the **Save** icon at the top left corner or by using command (Ctrl + S).



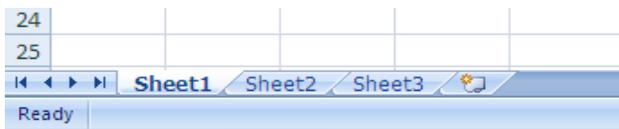


To close a workbook, click on the **Office** button and then click **Close**.



1.14 NAVIGATING MS EXCEL

Navigating around an Excel document with a lot of worksheets can be difficult. Navigation buttons can be use to quickly jump to a different worksheet in the current workbook. In the bottom-left corner of the Excel workbook, you'll see four navigation buttons to the left of the worksheet tabs.



Right-clicking on these buttons will display a list of all the worksheets, identified by name, in the current workbook. Selecting a name in this list will take you to that worksheet. Following are the shortcut keys to navigate the workbook:

- **Ctrl + Page Down:** Move to the next sheet in the workbook
- **Ctrl + Page Up:** Move to the previous sheet in the workbook
- **Ctrl + F6/Tab:** Move to the next workbook window
- **Ctrl + Shift + F6/Tab:** Move to the previous workbook window
- **F6/ Shift + F6:** Move to the next/previous worksheet-pane in a worksheet that has been split

1.15 INSERT CELLS, ROWS AND COLUMNS

Insert blank cells in a worksheet

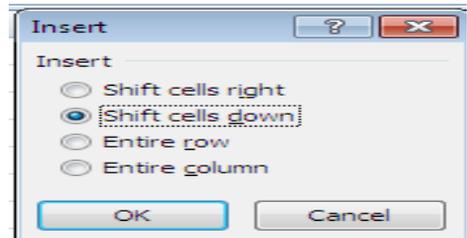
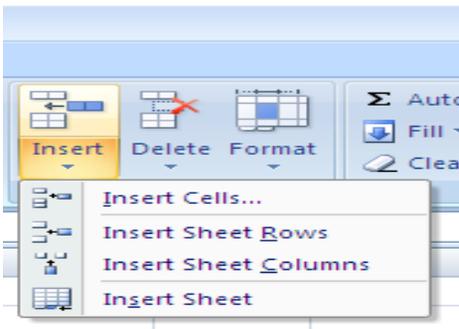
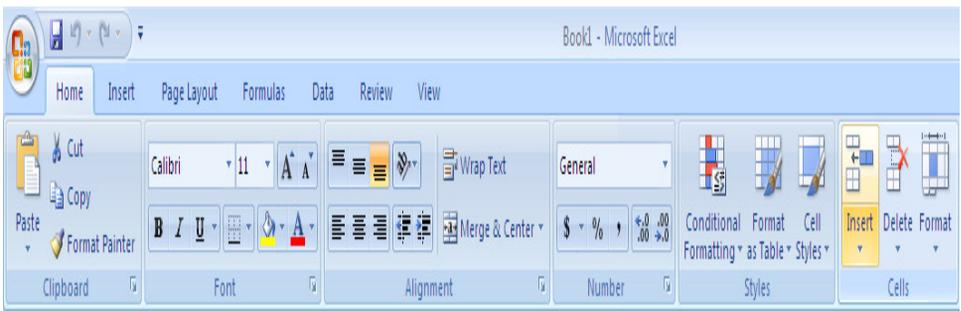
Select the cell where you want to insert the new blank cell and use following steps:

Step 1: On the **Home** tab, in the **Cells** group, click **Insert**

Step 2: Click **Insert Cells**

You can perform the same operation through right-click on the selected cell and then click **Insert**.

Step 3: In the **Insert dialog** box, choose appropriate option



To insert more than one cell, select multiple cells in the worksheet, where you want to insert the new blank cells and follow the same steps. For example, to insert four blank cells, you need to select four cells.

Insert blank Rows in a worksheet

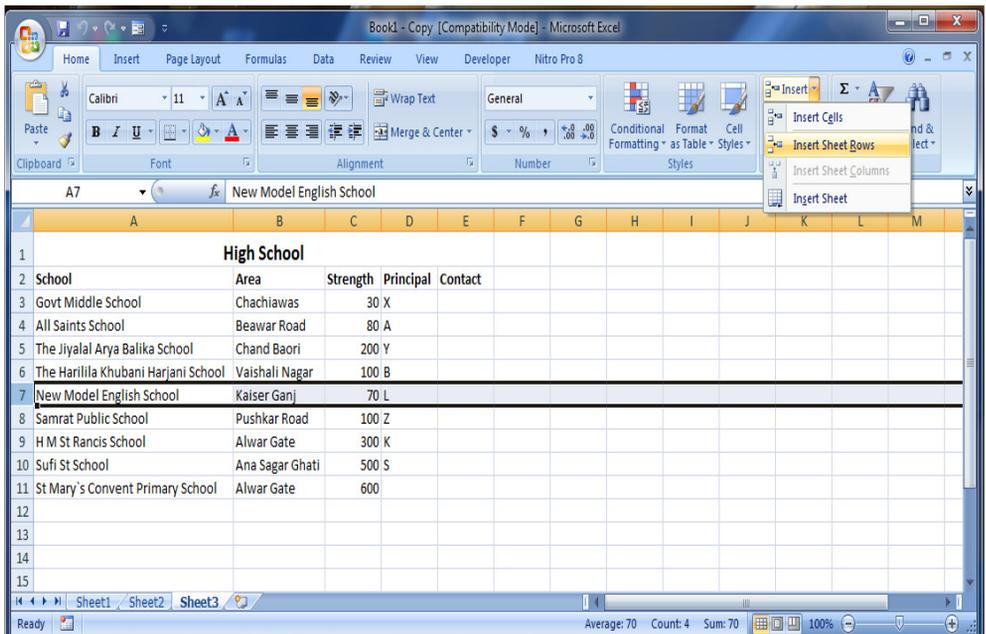
Step 1:

- To insert a single row, select the row or a cell in the row above which you want to insert the new blank row
- To insert more than one row, select the rows above which you want to insert the new blank rows (In order to insert nonadjacent rows, hold down Ctrl while you select nonadjacent rows)

Step 2: On the **Home** tab, in the **Cells** group, click **Insert**

Step 3: Click **Insert Sheet Rows**

You can perform the same operation through right-click on the selected row(s) and then click **Insert**.



Insert blank Columns in a worksheet

Step 1:

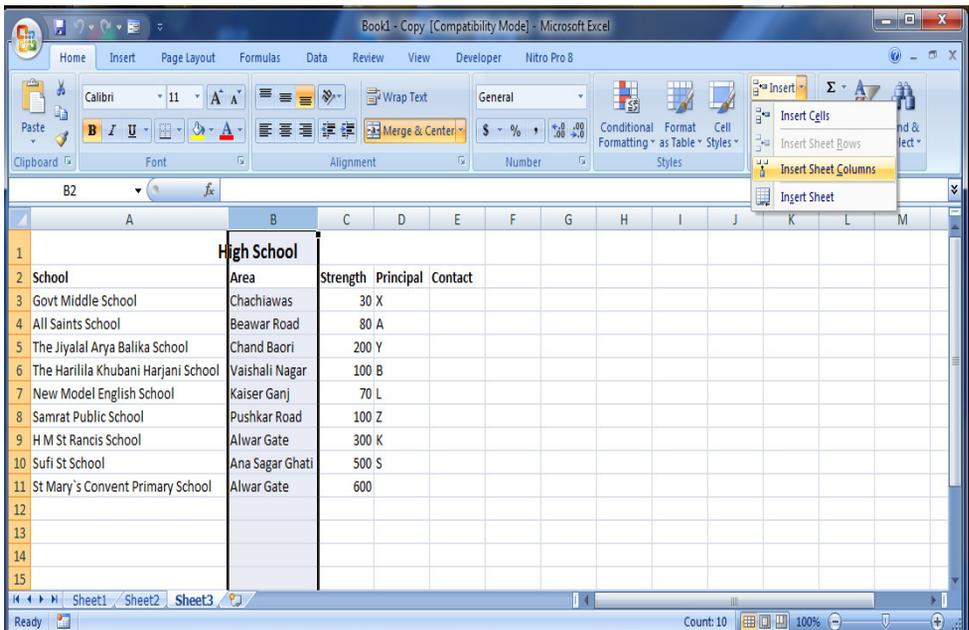
- To insert a single column, select the column or a cell in the column immediately to right of where you want to insert the new blank column

- To insert more than one column, select the columns immediately to right of where you want to insert the new blank columns (Inorder to insert nonadjacent columns, hold down Ctrl while you select nonadjacent columns)

Step 2: On the **Home** tab, in the **Cells** group, click **Insert**

Step 3: Click **Insert Sheet Columns**

You can perform the same operation through right-click on the selected column(s) and then click **Insert**.



1.16 DELETE CELLS, ROWS OR COLUMNS

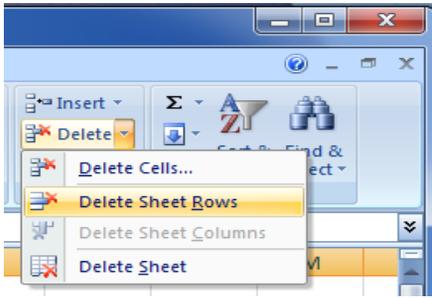
Select the cells, rows, columns that you want to delete and use following steps:

Step 1: On the **Home** tab, in the **Cells** group, click **Delete**

Step 2:

- To delete selected cells, click **Delete Cells**
- To delete selected rows, click **Delete Sheet Rows**
- To delete selected columns, click **Delete Sheet Columns**

Step 3: In the **Delete dialog** box, choose appropriate option



You can perform the same operation through right-click on the selected cells, rows, columns and then click **Delete**.

1.17 MERGE

A cell merge converts selected cells into a single cell. This can be useful for creating titles. You can combine or merge text from two or more cells into one cell. Use the following steps to perform merge operation:

Step 1: Select the cells you want to merge

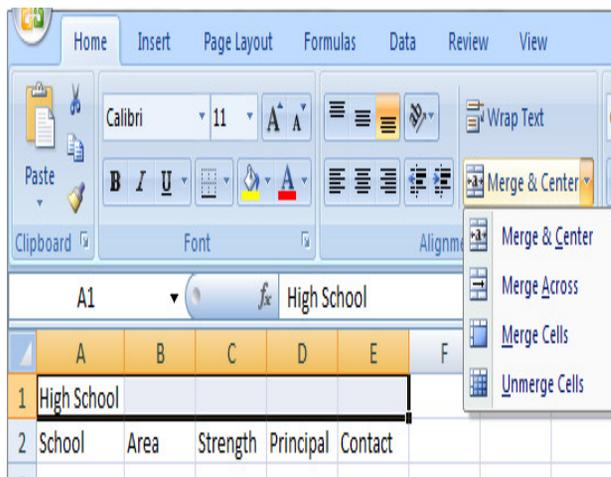
Step 2: Got to **Alignment** group of **Home** tab

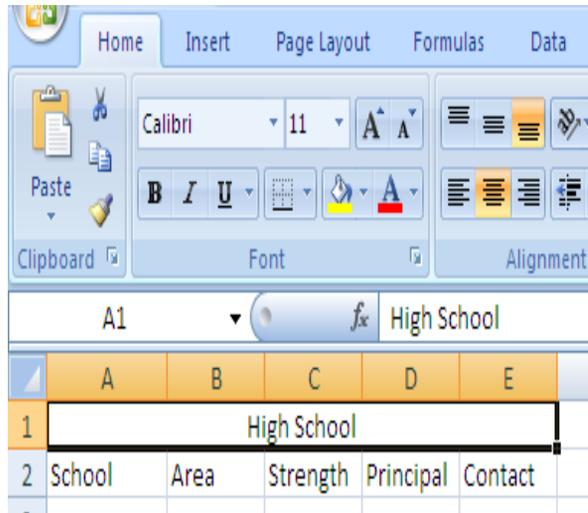
Step 3: Click **Merge & Center**

There are four options:

- Merge & Center
- Merge Across
- Merge Cells
- Unmerge Cells

Step 4: Click appropriate option

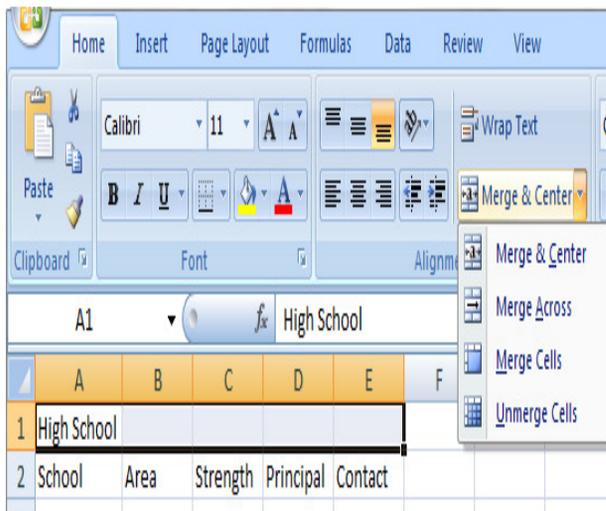


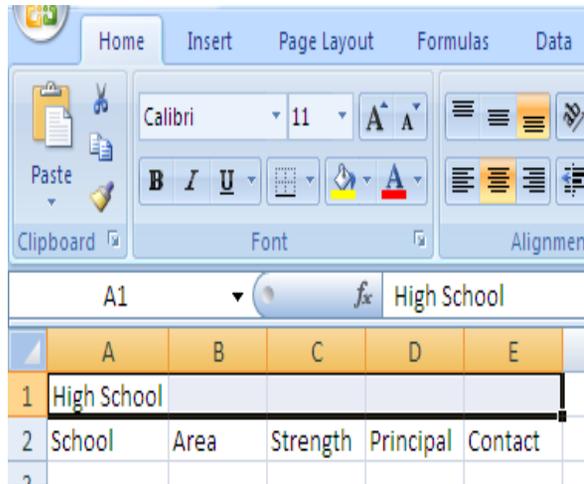


1.18 SPLITTING

After merging cells, you can split a merged cell into separate cells again. You cannot split an unmerged cell. Use the following steps to perform split operation:

- Step 1:** Select the cells you want to split
- Step 2:** Got to **Alignment** group of **Home** tab
- Step 3:** Click **Merge & Center**
- Step 4:** Click **Unmerge Cells** option





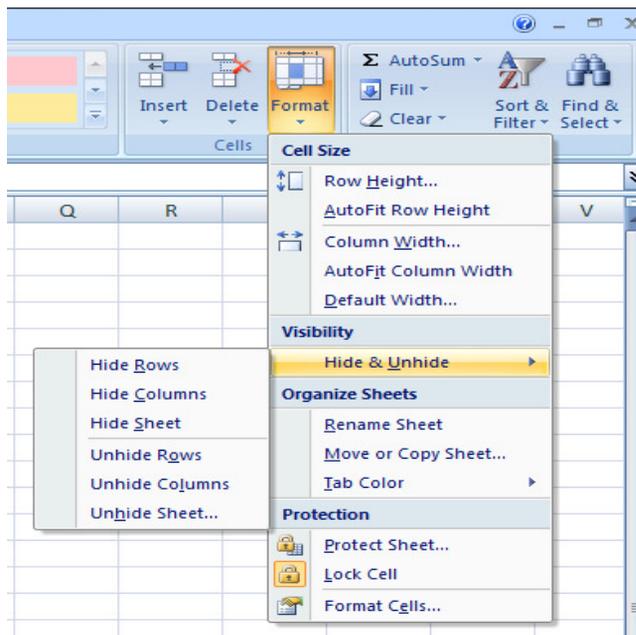
1.19 HIDING COLUMN(S) AND ROW(S)

Hiding column(s) or row(s) will help you to prevent unwanted changes in your workbook. To hide a column/row, use following steps:

Step 1: Select the column/row that you want to hide by clicking on their header

Step 2: On the **Home** tab, in the **Cells** group, click **Format**

Step 3: Under **Visibility**, point to **Hide & Unhide**, and then click **Hide Columns/Hide Rows**



You can perform the same operation through right-click on the selected column(s)/row(s) header(s) and then click **Hide**.

1.20 UNHIDING COLUMN(S) AND ROW(S)

To unhide the hidden column(s)/row(s), perform following step:

Step 1: Select the columns/rows, adjacent to either side of the column(s)/row(s) that you want to unhide

Step 2: On the **Home** tab, in the **Cells** group, click **Format**

Step 3: Under **Visibility**, point to **Hide & Unhide**, and then click **Unhide Columns/Unhide Rows**

You can perform the same operation through right-click on the selected column(s)/row(s) header(s) and then click **Unhide**.

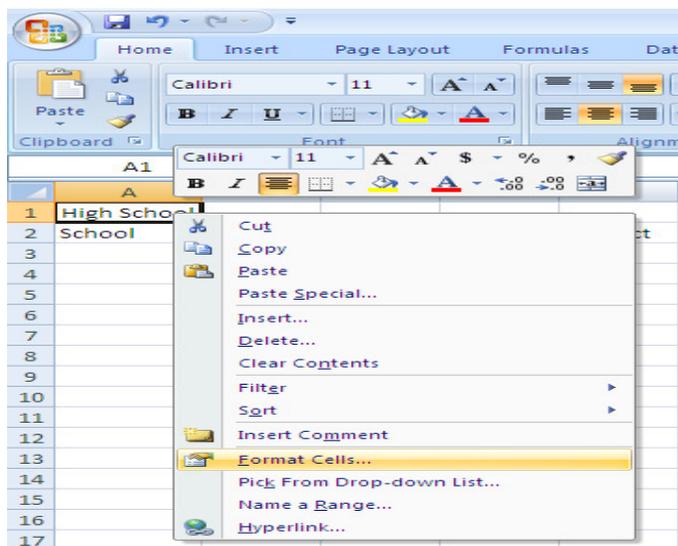
1.21 FORMAT

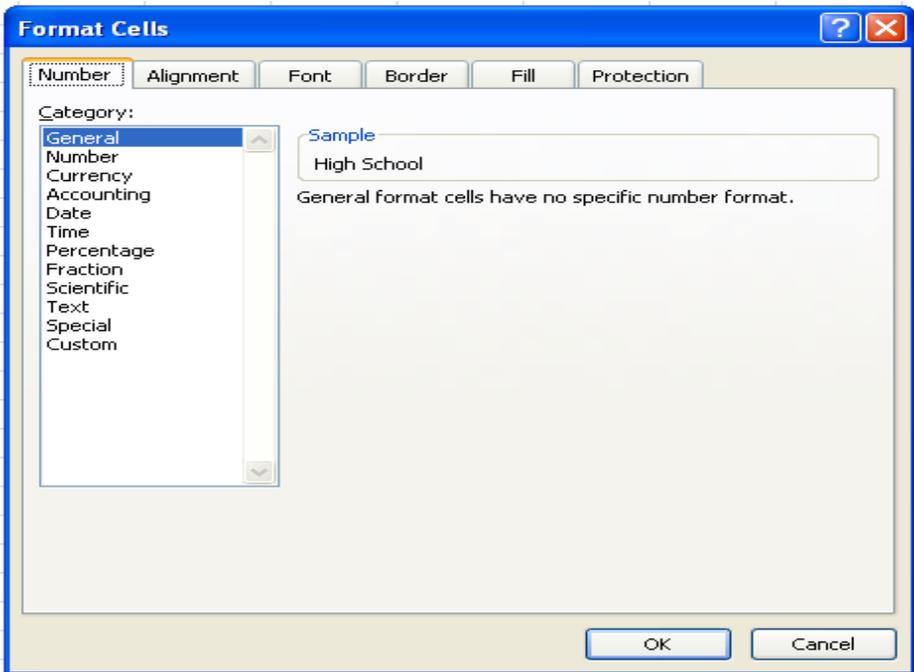
In Excel, every cell can be formatted differently. There are many options available to customize your Excel workbook, which can make the worksheet easier to read. Excel also provides many number formats, allowing you to standardize how numbers will appear in your document. Next chapter describes this topic in detail. To format cells use following steps:

Step 1: Select the cells that you want to format

Step 2: Right-click and then select **Format Cells** from the popup menu

Step 3: Select appropriate option from **Format Cells** and click OK





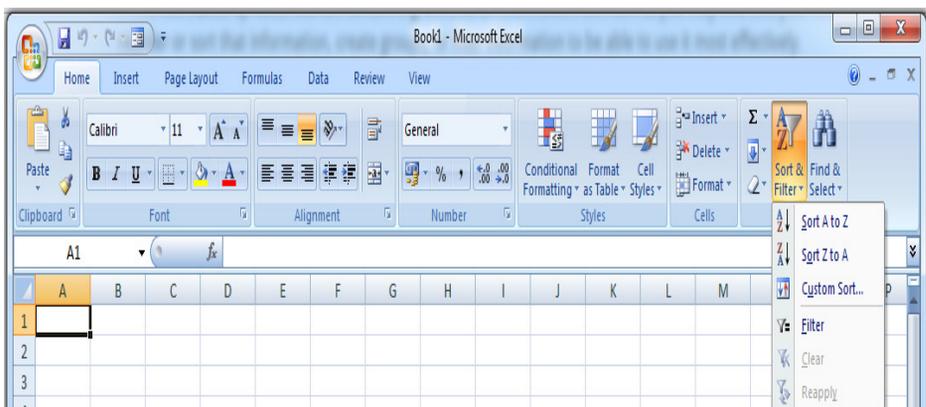
1.22 FILTER AND SORT OF CELLS

Sorting is a common spreadsheet task that allows you to easily reorder your data. The most common type of sorting is alphabetical ordering, which you can do in ascending or descending order. To sort in alphabetical order:

Step 1: Select a cell in the column you want to sort

Step 2: Click the **Sort & Filter** command in the **Editing** group of the **Home** tab

Step 3: Select appropriate option



You filter data to displays only the rows that meet criteria that you specify and hides rows that you do not want displayed. After you filter data, you can copy, find, edit, format, chart, and print the subset of filtered data without rearranging or moving it. You can also filter by more than one column. Filters are additive, which means that each additional filter is based on the current filter and further reduces the subset of data.

1.23 HEADERS AND FOOTERS

Headers and footers can be useful tools for identifying and organizing a document. A header is a section of information that is printed above the body of the document, and a footer is a section of information that is printed below the body of the document. Information in headers and footers is often static throughout a document. For example, you might create a footer that has page numbers, the date and time, and the name of your file. You may choose to add a built-in header or footer to your document, or to create a custom header and footer.

Headers and footers are only displayed in Page Layout view and on the printed pages. They are not displayed on the worksheet in Normal view. You can insert headers or footers in Page Layout view, or you can use Page Setup dialog box, if you want to insert headers or footers for more than one worksheet at the same time.

To Add or change the header or footer text by using Page Layout view, use following steps:

Step 1: Click the worksheet to which you want to add headers or footers, or that contains headers or footers that you want to change

Step 2: On the **Insert** tab, in the **Text** group, click **Header & Footer**, Excel will display the worksheet in **Page Layout** view (You can also click Page Layout View on the status bar to display this view)

Step 3: Do one of the following:

- To add a header or footer, click the left, center, or right header or footer text box at the top or the bottom of the worksheet page
- To change a header or footer, click the header or footer text box at the top or the bottom of the worksheet page respectively, and then select the text that you want to change

Step 4: Type the text that you want

Step 5: To close the headers or footers, click anywhere in the worksheet (To close the headers or footers without keeping the changes that you made, press ESC)

To Add or change the header or footer text by using Page Setup dialog box, use following steps:

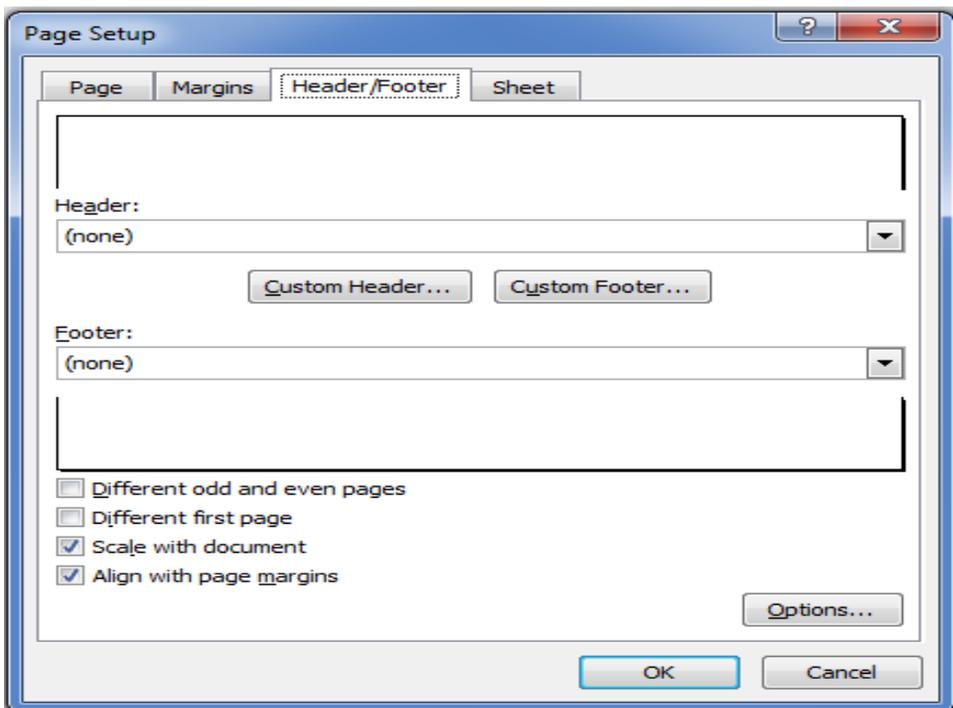
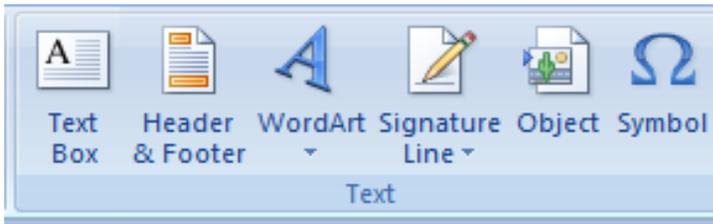
Step 1: Click the worksheet to which you want to add headers or footers, or that contains headers or footers that you want to change

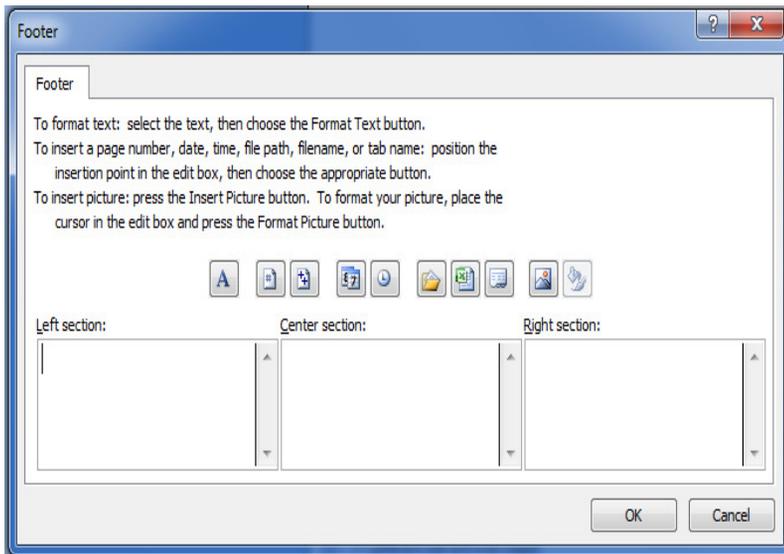
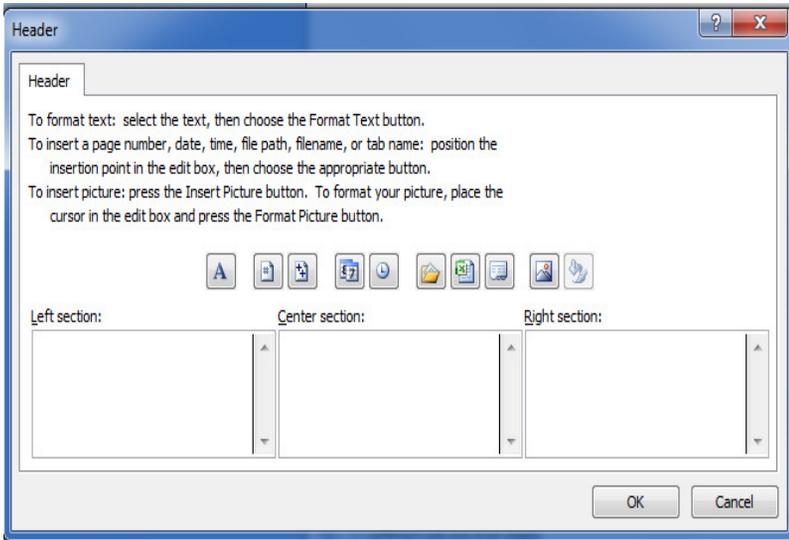
Step 2: On the **Page Layout** tab, in the **Page Setup** group, click the Dialog Box Launcher, next to **Page Setup**, the **Page Setup** dialog box will be displayed

Step 3: On the **Header/Footer** tab, click **Custom Header** or **Custom Footer**

Step 4: Click in the **Left section**, **Center section**, or **Right section** boxes, to insert the header or footer information that you want in that section

Step 5: To add or change the header or footer text, type additional text or edit the existing text in the **Left section**, **Center section**, or **Right section** boxes





1.24 SET MARGINS FOR HEADERS AND FOOTERS

If there are problems with the display of your header or footer, you can fix them by adjusting the margins. You can adjust the margins in two ways: using the mouse option or the page setup dialog box option.

To adjust margins with the mouse use following steps:

Step 1: From the **Office Button**, select **Print** and then click **Print**

Preview (Document will be displayed in Print Preview mode)

Step 2: In the **Preview** group, select **Show Margins** (Margin outline will appear)

Step 3: Using the mouse, click and drag the margin outlines to the desired position

Step 4: Click **Close Print Preview**

To adjust margins with the Page Setup Dialog Box use following steps:

Step 1: From the **Office** Button menu, select **Print** and click **Print Preview**
(Document will be displayed in Print Preview mode)

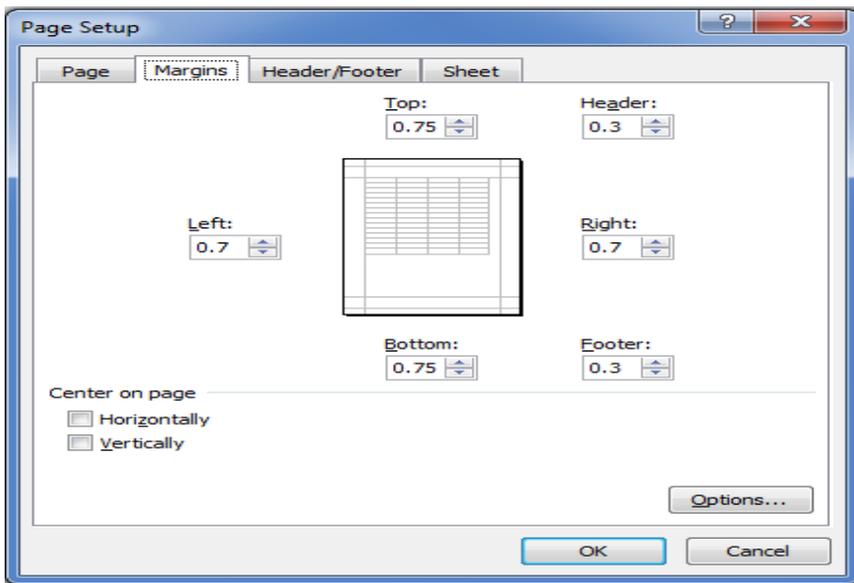
Step 2: In the **Print** group, click **Page Setup** (the **Page Setup** dialog box will be displayed)

Step 3: Select the **Margins** tab

Step 4: In the Top, Left, Right, Bottom, Header, and/or Footer text boxes, type the preferred margin size or use the nudge buttons to adjust the margins

Step 5: Click OK

Step 6: Click **Close Print Preview**



1.25 INFORMATION ABOUT PRINTING

You can print entire or partial worksheets and workbooks, one at a time, or several at once. And if the data that you want to print is in a Microsoft Office Excel table, you can print just the Excel table. You can also print a workbook to a file instead of to a printer. To print a partial or entire worksheet or workbook use following steps:

Step 1: Do one of the following:

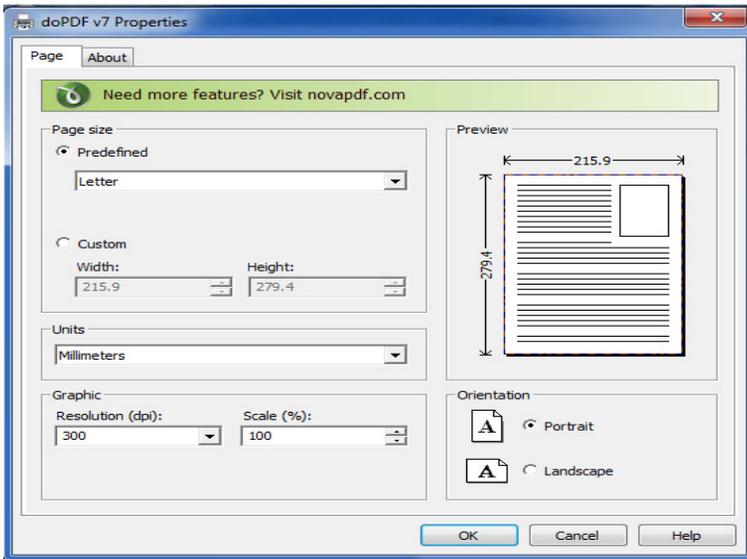
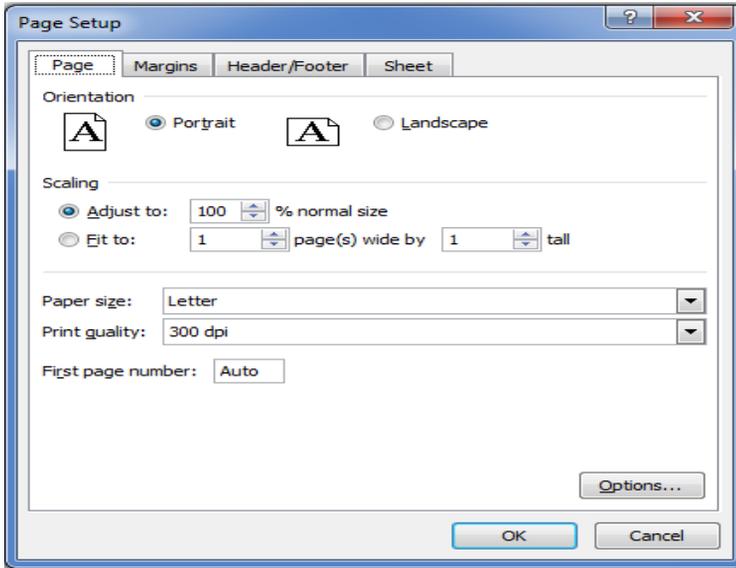
- To print a partial worksheet, click the worksheet, and then select the range of data that you want to print

- To print the entire worksheet, click the worksheet to activate it
- To print a workbook, click any of its worksheets

Step 2: Click **Office** button, and then click **Print** (or press Keyboard shortcut Ctrl+P), Print dialog box will be displayed

Step 3: Under **Print what** section, select an option to print the selection, the active sheet or sheets, or the entire workbook

Step 3: Under **Copies** section, you can specify the number of copies to print



1.26 SELECT PRINT AREA

If you print a specific selection on the worksheet frequently, you can define a print area that includes just that selection. When you print the worksheet after defining a print area, only the print area will print. You can add cells to expand the print area as needed, and you can clear the print area to print the entire worksheet again.

To set a print area: select the cells that you want to define as the print area, then on the Page Layout tab, in the Page Setup group, click Print Area, and then click Set Print Area.

To add cells to an existing print area: select the cells that you want to add to the existing print area then on the Page Layout tab, in the Page Setup group, click Print Area, and then click Add to Print Area.

To clear a print area: click anywhere on the worksheet for which you want to clear the print area then on the Page Layout tab, in the Page Setup group, click Clear Print Area.

1.27 PRINT A RANGE OF PAGES

You can print a range of pages, by using appropriate options in Print Range section of Print dialog box. The options available under Print Range section are as follows:

1. **All:** When the All option is selected, all the pages in the current worksheet will print.
2. **Page(s):**
 - To print a single page, enter its page number in both the From and To text boxes here or select these page numbers with the spinner buttons.
 - To print a range of pages, put the first page number in the From text box and the last page number in the To text box.

1.28 ABOUT ENTERING INFORMATION INTO EXCEL

To enter information in Excel, just select a cell and begin typing. You'll see the text appear both in the cell and in the formula bar above. To tell Excel to accept the information you've typed, press enter. The information will be entered immediately, and the cursor will move down one cell. You can also press the tab key instead of the enter key. If you press tab, the cursor will move one cell to the right once the information has been entered. At any time while you are typing you can press the escape key to cancel. This brings Excel back to the state it was in

before you started typing. When you want to delete information that has already been entered, just select the cells, and press the delete key. The information that you enter can be numbers, text, dates, or times. You can format the information in a variety of ways. And, there are several settings that you can adjust to make information entry easier for you.

1.29 ENTERING DATA

There are three types of data you enter in Excel: text, value (number), or formula. If Excel detects that the data you enter is a formula, it will calculate the formula and display the result in the cell. You can see the formula in the Formula Bar when the cell is active. If it detects that it's not a formula, Excel then decides if it's text or value. Text entries are aligned to the left side of the cell whereas values are aligned to the right. It is very important to know so you can make sure you are entering things correctly, and Excel is recognizing your entries as the correct data type.

1.30 ENTERING LABELS

A label most often refers to a text entry such as a heading used to identify a column of data. To enter label (i.e. text data) in excel, first select the cell in which data has to be entered and then type the text. Press ENTER key to finish your text entry. The text will be displayed in the active cell as well as in the Formula bar. Text entries are simply data that Excel can't classify as a formula or value. If you have numbers to be treated as text use an apostrophe (') as the first character. You cannot do calculations with these kind of data entry. You can always check if Excel is classifying your entry as text because text will be aligned to the left side of the cell.

1.31 ENTERING VALUES

Values are numbers that represent quantities, and can be used in mathematical calculations. To enter value in excel, first select the cell to make it an active cell and then type the value. Values are aligned to the right side of the cell. Values are the building blocks of all formulas that you enter. Your numbers can be from the entire range of numeric values: whole numbers (example, 32), decimals (example, 18.56) and scientific notation (example, 0.146E+3). Excel displays scientific notation automatically if you enter a number that is too long to be viewed in its entirety in a cell. You may also see number signs (# # # #) when a cell entry is too long. Widening the column that contains the cell with the above signs will allow you to read the number.

1.32 MULTIPLE ENTRIES

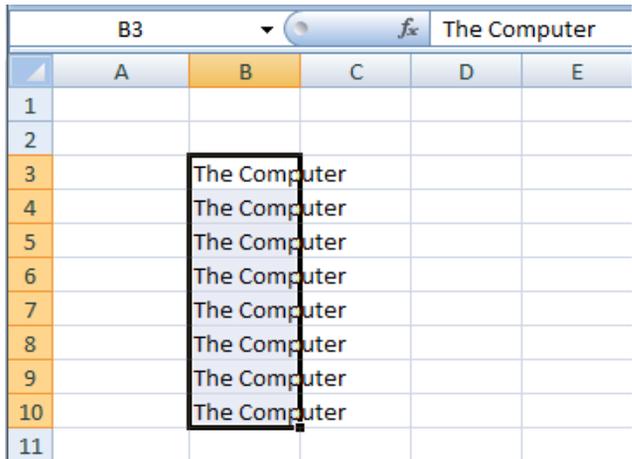
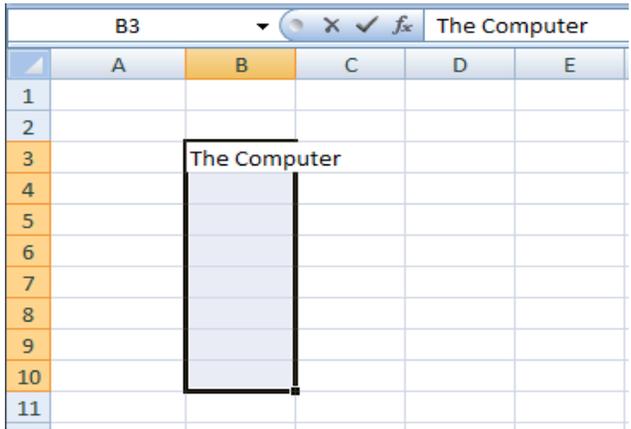
In Excel, you can enter the same data or text into multiple cells at once using following simple steps:

Step 1: Select all the cells that you want to have the same text

Step 2: Type the text you want

Step 3: After typing the text, instead of pressing **Enter**, press **Ctrl+Enter**

After completing the above steps, the text will automatically be entered into all selected cells. This technique can be very useful any time you have data that has the same prefix and just need to add something to the end of each cell. For example, the above steps can be use to enter "The Computer" in all the selected cells, as shown in the below figure.



1.33 COPYING & PASTING OF CELLS, ROWS AND COLUMNS

When you move or copy cell(s), rows and columns, Excel moves or copies all data that they contain, including formulas and their resulting values, comments, cell formats, and hidden cells. You can also copy specific contents or attributes from the cells. For example, you can copy the resulting value of a formula without copying the formula itself, or you can copy only the formula. To move or copy selected cell(s), row(s) and column(s), you can use Cut command or Copy command or mouse. Cut command or Copy commands can be used as follows:

Step 1: Select the cell(s), row(s) or column(s) that you want to move or copy

Step 2: On the **Home** tab, in the **Clipboard** group, do one of the following:

- To move them, click **Cut** or use keyboard shortcut Ctrl+X
- To copy them, click **Copy** or keyboard shortcut Ctrl+C

Step 3: Right-click a row or column below or to the right of where you want to move or copy your selection, and then do one of the following:

- When you are moving them, click **Insert Cut Cells**
- When you are copying them, click **Insert Copied Cells**

Using the mouse, you can move or copy cell(s), row(s) and column(s) as follows:

Step 1: Select the cell(s), row(s) or column(s) that you want to move or copy

Step 2: Do one of the following:

- To move them, point to the border of the selection, when the pointer becomes a move pointer, drag the them to another location
- To copy them, hold down Ctrl while you point to the border of the selection, when the pointer becomes a copy pointer, drag the them to another location

To copy specific contents or attributes from the cells, when you paste cells, click the arrow below Paste and choose specific options as follows:

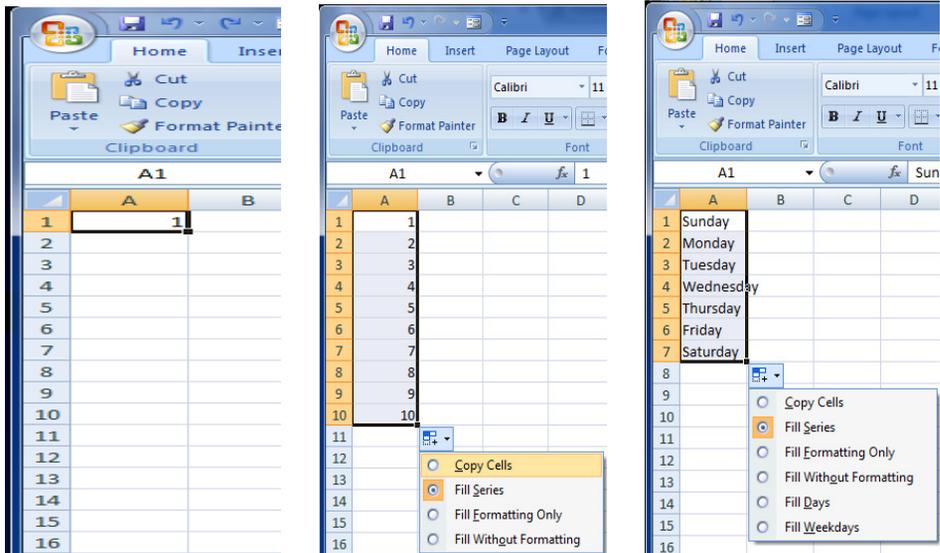
- To paste values only, click **Paste Values**
- To paste cell formats only, click **Paste Special**, and then click **Formats** under **Paste**
- To paste formulas only, click **Formulas**

1.34 FILLING CELLS WITH A SERIES OF DATA

Excel provides many ways to repeat information in many cells throughout a worksheet. The most convenient way to repeat information in contiguous cells is by using the Fill handle. If the first cell contains a formula, the formula will be repeated in the additional cells. If the first cell contains text, the text will be

repeated in the additional cells. Excel autofills dates, months, and other established patterns of non-numerical data. If Excel recognizes a pattern in the information you entered, the additional cells will contain the next item in the pattern. For example, if the first cell contains the day Sunday, Excel will fill the following cells with Monday, Tuesday, etc.

To use the fill handle, you select the cells that you want to use as a basis for filling additional cells, and then drag the fill handle across or down the cells that you want to fill. After you drag the fill handle, the Auto Fill Options button appears so that you can change how the selection is filled. For example, you can choose to fill just cell formats by clicking Fill Formatting Only, or you can choose to fill just the contents of a cell by clicking Fill Without Formatting.



1.35 EDITING CELL DATA

Editing your Excel worksheet data is very easy. You can edit your data by any of the following ways:

- Select the cell containing data to be edited, and Press F2, then Use Backspace key and erase the wrong entry (Retype the correct entry)
- Select the cell and simply retype the correct entry
- If you want only to clear the contents of the cell, select the cell and press **Delete** key
- To bring back the previous entry, either click on **Undo** button on standard Toolbar or use keyboard shortcuts Ctrl+Z

1.36 FIND AND REPLACE

Excel's Find and Replace feature is a very powerful tool that allows you to rapidly change the content of your worksheets. Use Find and Replace to locate and optionally replace text or values in a worksheet. You can narrow the search results by specifying formatting to look for as well as other search options, including Match Case. To find or replace text and numbers on a worksheet use following steps:

Step 1: In a worksheet, click any cell

Step 2: On the **Home** tab, in the **Editing** group, click **Find & Select**

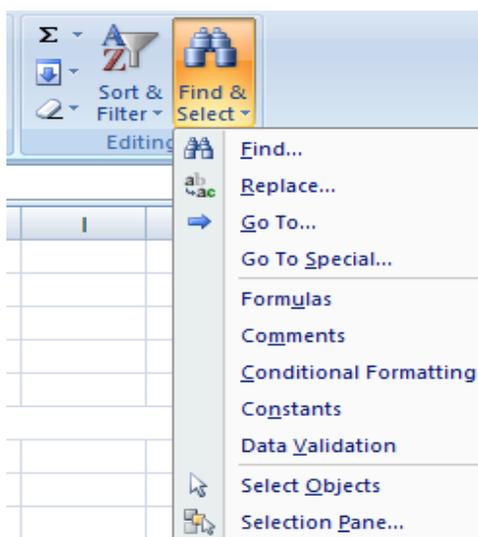
Step 3: Do the following:

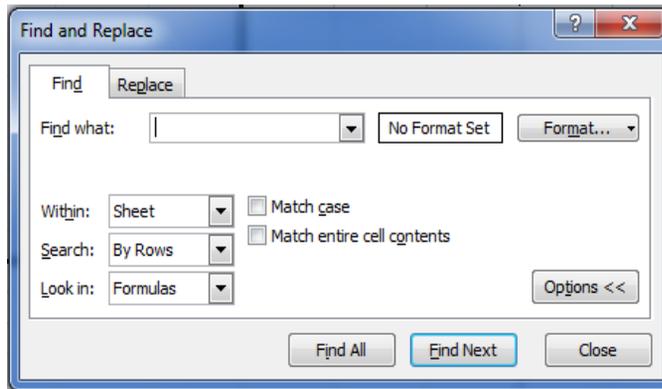
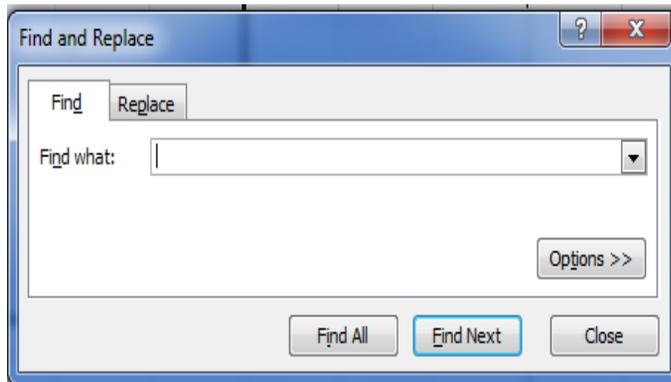
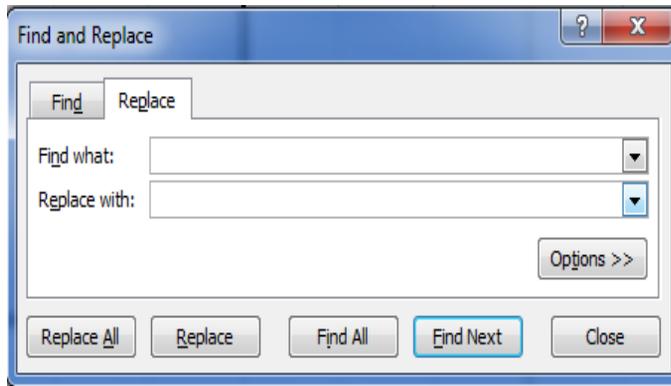
- To find text or numbers, click **Find**
- To find and replace text or numbers, click **Replace**

Step 4: In the **Find what** box, type the text or numbers that you want to search for

Step 5: Click **Options** to further define your search, and then do any of the following:

- To search for data in a worksheet or in an entire workbook, in the **Within** box, select **Sheet** or **Workbook**
- To search for data in specific rows or columns, in the **Search** box, click **By Rows** or **By Columns**
- To search for data with specific details, in the **Look in** box, click **Formulas**, **Values**, or **Comments**
- To search for case-sensitive data, select the **Match case** check box
- To search for cells that contain just the characters that you typed, in the **Find what** box, select the **Match entire cell contents** check box



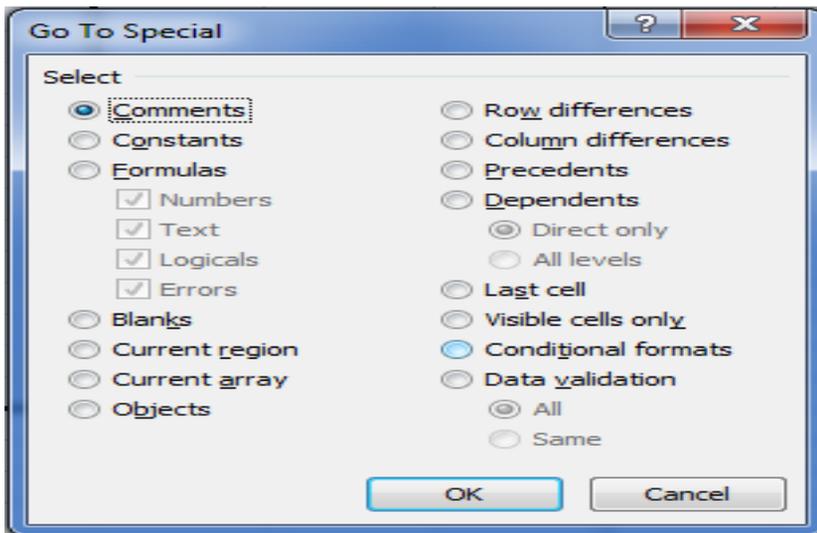
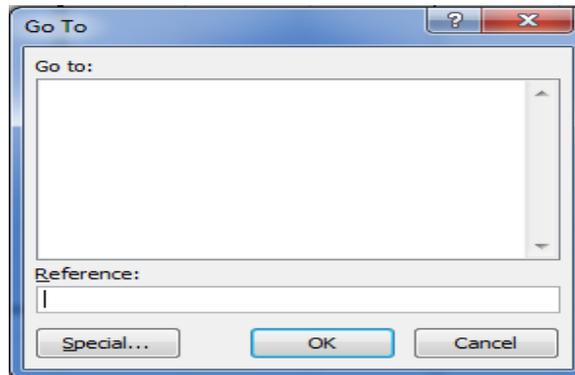


1.37 GO TO CELL DATA

To move to a specific cell of the worksheet, you can use the Go To command. The Go To command is also useful when moving between ranges. You can use F5 to display the Go To dialog box. You can use go to command as follows:

Step 1: In a worksheet, click any cell

- Step 2:** On the **Home** tab, in the **Editing** group, click **Go To...** or Press F5, (Go To dialog box appears)
- Step 3:** In the Go to scroll box, select a range name, or In the Reference text box, type a cell location
- Step 4:** For advanced Go To options, click **SPECIAL**, and select an appropriate option
- Step 5:** Click ok



1.38 LOCKING ROWS AND COLUMNS BY SPLTTING PANES AND FREEZING PANES

Splitting or freezing panes allow you to hold sections of a worksheet in place so they are visible at all times whilst scrolling through the worksheet. This is especially useful for large worksheets because you can hold the column and row

headings in place whilst you scroll through your data. For example, if the first row in your spreadsheet contains headers, you might freeze that row to make sure that the column headers remain visible as you scroll down in your spreadsheet. To Freeze rows or columns use following steps:

Step 1: Click the label of the row, below the row that should remain frozen at the top of the worksheet

Step 2: Click **Freeze Panes** in the **Window** Group of **View** Tab

Step 3: Do one of the following:

- To lock one row only, click **Freeze Top Row**
- To lock one column only, click **Freeze First Column**
- To lock more than one row or column, or to lock both rows and columns at the same time, click **Freeze Panes** (You will need your cursor to be below the row(s) you want to freeze and to the right of any column(s) you want to freeze)
- To lock multiple rows (starting with row 1), select the row below the last row you want frozen, click **Freeze Panes**
- To lock multiple columns, select the column to the right of the last column you want frozen, click **Freeze Panes**

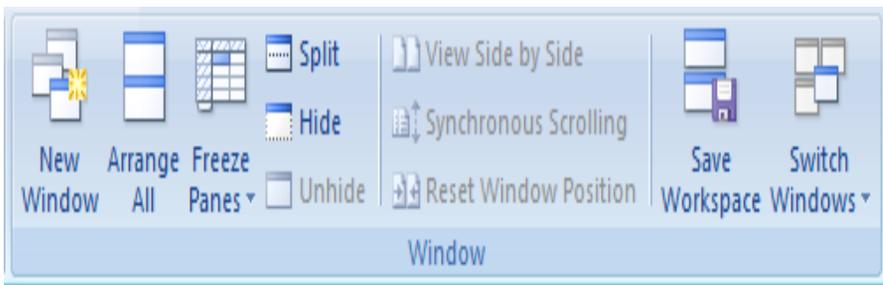
Step 4: To remove the frozen panes, click **Unfreeze Panes**

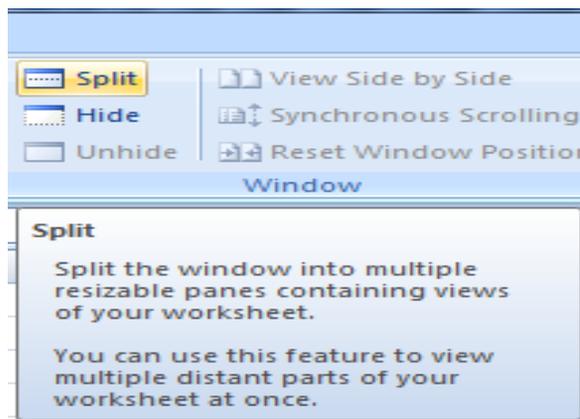
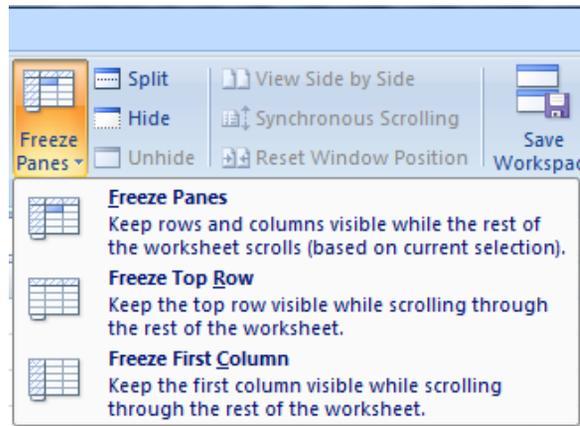
You can also split the worksheet window into separate panes and scroll the worksheet in each pane so that you can easily compare data from two separate worksheet locations. Splitting panes allows you to see multiple areas of a worksheet at once. To split a worksheet into panes use following steps:

Step 1: Select the cell where you want to split the worksheet (worksheet will be split above and to the left of the active cell creating four panes)

Step 2: Click the **Split** button in the **Window** group of **View** tab

The worksheet will split into sections that can be navigated individually without moving the other sections. You can also click and drag the panes to adjust the location of the split. Click the Split button again to remove the split.





1.39 SPELL CHECK

Excel includes a built-in spell checker that can find and get rid of spelling errors and typos in your worksheets. If you have a multiple-sheet workbook, you can select the sheets you want to check before you start the spell checker. Also, you can check the spelling of just a particular group of entries by selecting the cells first. To check the spelling in a worksheet, follow these steps:

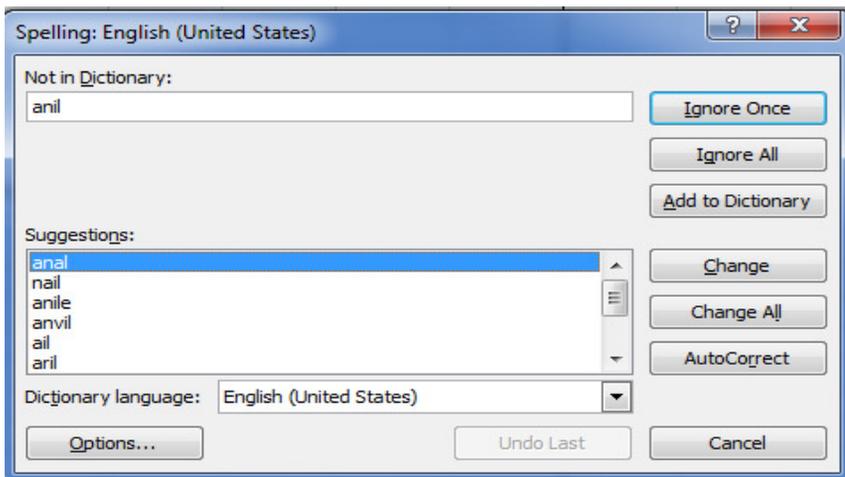
Step 1: Click the **Spelling** in the **Proofing** group of **Review** tab (or press F7)

(Excel begins checking the spelling of text entries in the worksheet. When the program comes across an unknown word, it displays the Spelling dialog box. Excel suggests replacements for the unknown word shown in the **Not in Dictionary** text box with a likely replacement in the Suggestions list box. If that replacement is incorrect, you can scroll through the Suggestions list and click the correct replacement)

Step 2: Select one or more of the following dialog box options:

- **Ignore Once** or **Ignore All**: When Excel's spell check comes across a word its dictionary finds suspicious but you know is viable, click the Ignore Once button. If you don't want the spell checker to query you about this word again, click Ignore All
- **Add to Dictionary**: Click this button to add the unknown word to a custom dictionary so that Excel won't flag it again
- **Change**: Click this button to replace the word listed in the **Not in Dictionary** text box with the selected word in the Suggestions list box
- **Change All**: Click this button to change all occurrences of this misspelled word in the worksheet to the selected word in the Suggestions list box
- **AutoCorrect**: Click this button to have Excel automatically correct this spelling error with the selected suggestion in the Suggestions list box (by adding the misspelling and suggestion to the AutoCorrect dialog box)

Step 3: Click OK when the spell check is complete



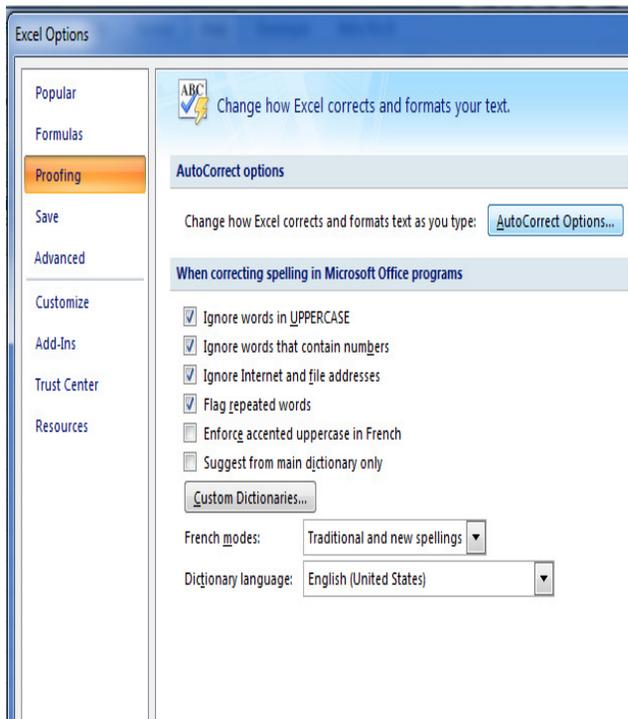
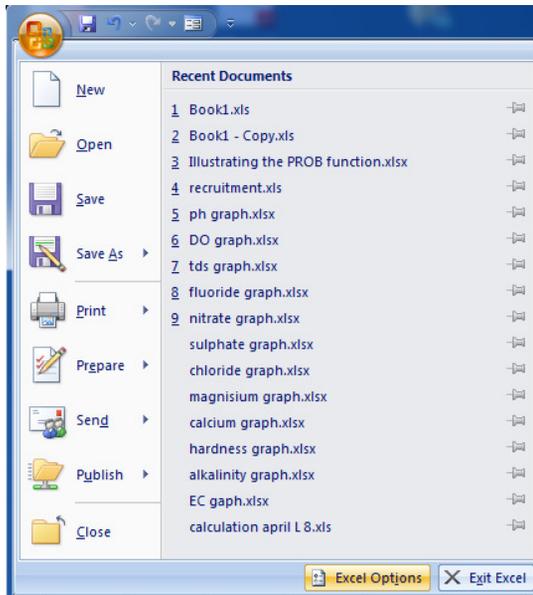
1.40 AUTOCORRECT

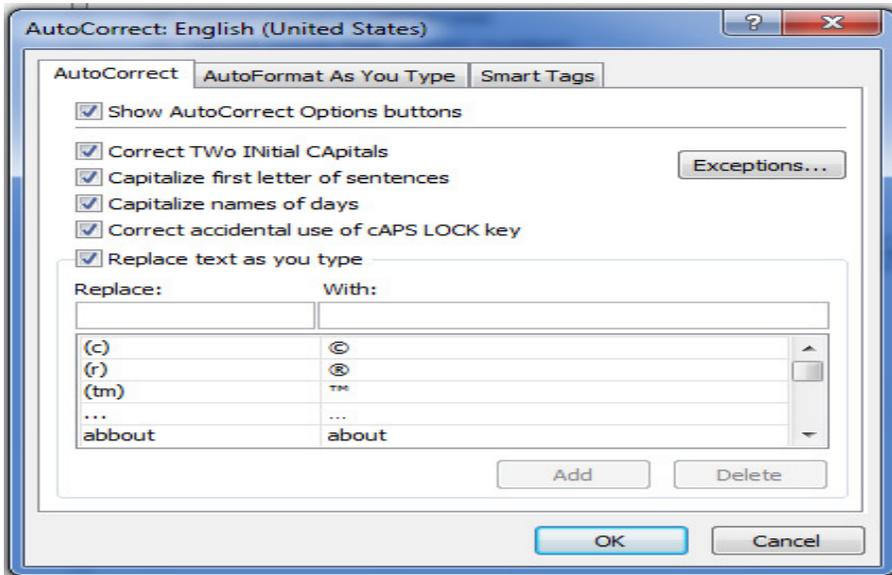
You can use the AutoCorrect feature to correct typos, capitalization errors, and misspelled words, as well as automatically insert symbols and other pieces of text. By default, AutoCorrect uses a standard list of typical misspellings and symbols, but you can modify the entries in this list. To modify the entries in this list you can open the AutoCorrect dialog box using following steps:

Step 1: Click **Office** button then click **Excel Options**

Step 2: Click **Proofing** and then click **AutoCorrect Options**

Step 3: Modify entries as required





1.41 TRACK CHANGES

You can use change tracking to log details about workbook changes every time that you save a workbook. This change history can help you identify any changes that were made to the data in the workbook, and you can then accept or reject those changes. Change tracking is especially useful when several users edit a workbook. It is also useful when you submit a workbook to reviewers for comments, and then want to merge the input that you receive into one copy of that workbook, incorporating the changes and comments that you want to keep.

When you turn on the Track Changes feature, every cell you edit will be highlighted with a unique border and indicator. Selecting a marked cell will show the details of the change. This allows you and other reviewers to see what's been changed before accepting the revisions permanently. To turn on change tracking for a workbook use following steps:

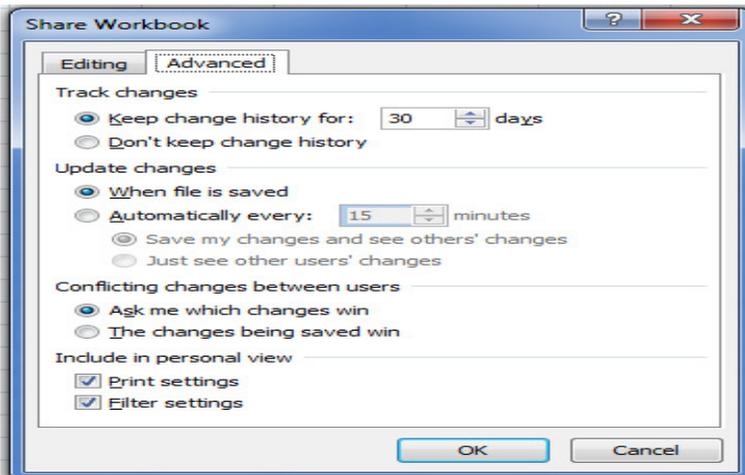
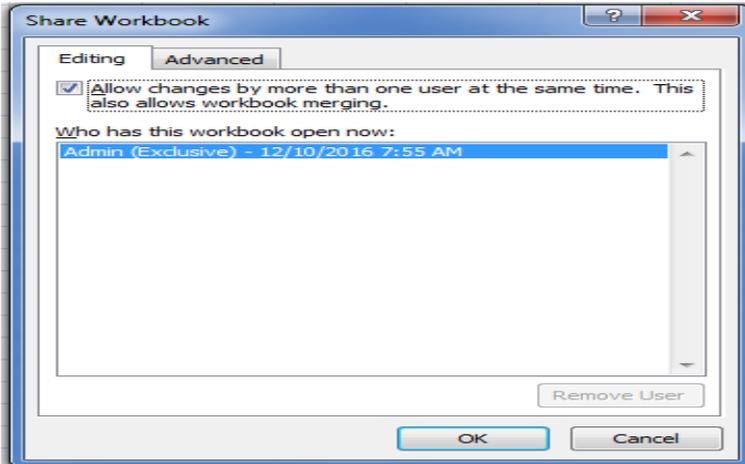
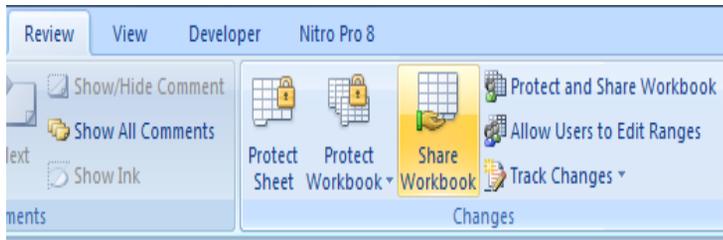
Step 1: Click **Share Workbook**, in the **Review** tab, of the **Changes** group

Step 2: On the **Editing** tab, select the **Allow changes by more than one user at the same time** check box

Step 3: Click the **Advanced** tab

Step 4: Under **Track changes**, click **Keep change history for** and, in the **days** box, type the number of days of change history that you want to keep

Step 5: Click **Ok** and, then to save the workbook, click **Ok**



1.42 ACCEPT AND REJECT CHANGES

To accept and reject changes use following steps:

Step 1: On the **Review** tab, in the **Changes** group, click **Track Changes**, and then click **Accept or Reject Changes**

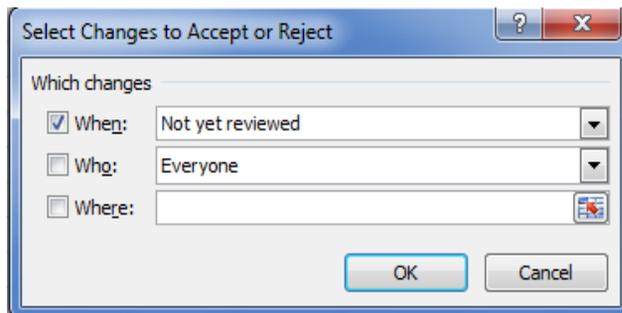
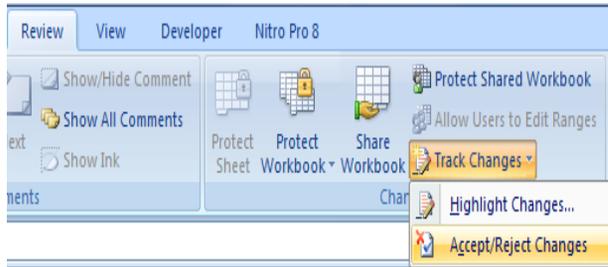
Step 2: If prompted to save the workbook, click **Ok**

Step 3: In the **Select Changes to Accept or Reject** dialog box, choose appropriate options

Step 4: Click **Ok**, and then review the information about each change in the **Accept or Reject Changes** dialog box

Step 5: To accept or reject each change, click **Accept** or **Reject**

Step 6: If prompted to select a value for a cell, click the value that you want, and then click **Accept**



1.43 COMMENTS

Sometimes you may want to add a comment to provide feedback instead of editing the contents of a cell. Using comments can help you make a worksheet easier to understand by providing additional context for the data it contains. For example, you can use a comment as a note that provides information about data in an individual cell. You can also add a comment to a column heading to provide guidance on data that a user should enter. When a cell has a comment, a red indicator appears in the corner of the cell. When you rest the pointer on the cell, the comment appears. To add a comment to a cell use following steps:

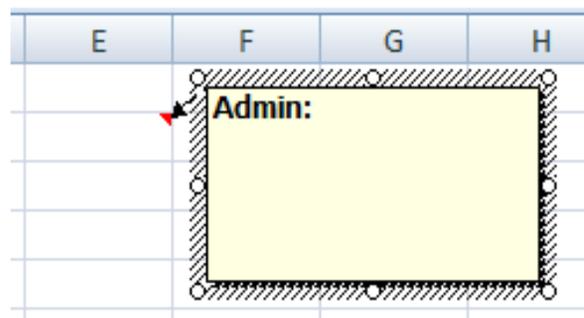
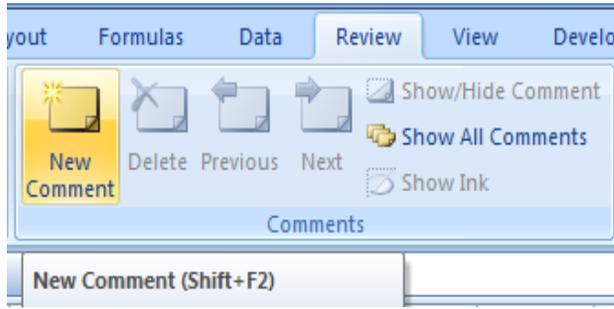
Step 1: Select the cell that you want to add a comment to

Step 2: Click **New Comment** in the **Comments** group of the **Review** tab

Step 3: In the body of the comment, type the comment text

Step 4: Click outside the comment box, the comment box disappears, but the comment indicator remains, to keep the comment visible, do the following:

- a. Select the cell
- b. Click **Show/Hide Comment** in the **Comments** group of the **Review** tab, (you can also right-click the cell that contains the comment, and then click Show/Hide Comments)



IMPORTANT POINTS:

- Excel is a spreadsheet application developed by Microsoft.
- A spreadsheet is basically a matrix of rows and columns.
- Word is first and foremost a word processor, while Excel is primarily for numeric calculations.
- The primary objective of Excel is to perform basic and complex mathematical calculations.
- An Excel file is a workbook that can hold one or more worksheets.
- An Excel worksheet is a single spreadsheet that contains matrix of rows (designated by numbers) and columns (designated by letters).

- Sorting is a common spreadsheet task that allows you to easily reorder your data.
- You filter data to displays only the rows that meet criteria that you specify and hides rows that you do not want displayed.
- A header is a section of information that is printed above the body of the document, and a footer is a section of information that is printed below the body of the document.
- You can print a range of pages, by using appropriate options in Print Range section of Print dialog box.
- There are three types of data you enter in Excel: text, value (number), or formula.
- Excel autofills dates, months, and other established patterns of non-numerical data.
- Excel's Find and Replace feature is a very powerful tool that allows you to rapidly change the content of your worksheets.
- Use Find and Replace to locate and optionally replace text or values in a worksheet.
- To move to a specific cell of the worksheet, you can use the Go To command.
- Splitting or freezing panes allow you to hold sections of a worksheet in place so they are visible at all times whilst scrolling through the worksheet.

Practice Questions

Objective type questions:

- Q1.** A feature that displays only the data in column(s) according to specified criteria
- a. Formula
 - b. Sorting
 - c. Filtering
 - d. Pivot
- Q2.** The process of arranging the items of a column in some sequence or order is known as:
- a. Arranging
 - b. Autofill
 - c. Sorting
 - d. Filtering

- Q3.** How many sheets are there, by default, when we create a new Excel file?
- 1
 - 3
 - 5
 - 10
- Q4.** Which of the following is not true regarding Conditional Formatting?
- You can add more than one condition to check
 - You can set condition to look for Bold and apply Italics on them
 - You can apply Font, border and pattern formats that meets the specified conditions
 - You can delete any condition from Conditional Formatting dialog box if it is not required
- Q5.** One cell format can be copied to another cell by using?
- Format Painter
 - Format Setting
 - Format Showing
 - Format Checking
- Q6.** Which symbol must all formula begin with?
- =
 - +
 - (
 - @
- Q7.** Which key do you press to check spelling?
- F3
 - F5
 - F7
 - F9

Very short answer type questions:

- Q1.** Does MS word have advanced formatting facilities?
- Q2.** By default, Excel provides how many worksheets in a workbook?
- Q3.** Which command is use to save the workbook?
- Q4.** Navigation buttons are presented in the corner of the Excel workbook.
- Q5.** Headers and footers are only displayed in view and on the printed pages.

- Q6. In excel, text entries and values are aligned to which side of the cell?
- Q7. Which command is use to display the Go To dialog box
- Q8. Which button is use to check the spelling of text entries in the worksheet?
- Q9. Why do you hide rows/columns in Excel?

Short answer type questions:

- Q1. What is Microsoft Excel?
- Q2. Compare MS Word with MS Excel.
- Q3. Define worksheet and workbooks.
- Q4. What do you mean by labeling in Excel?
- Q5. How you can add a new sheet in Excel?
- Q6. What are the Navigation keys in MS Excel?
- Q7. Discuss merge and split in Excel.
- Q8. Explain the steps for creating Header and Footer in Excel.
- Q9. What do you mean by sorting? Write down steps for sorting in Excel.
- Q10. What is the benefit of using formula in Excel?
- Q11. Write short note on Header and Footer.
- Q12. What is 'Go to' command?

Essay type questions:

- Q1. Explain information entering into Excel in detail.
- Q2. What is track changes? Write down steps to turn on change tracking for a workbook.
- Q3. What is the use of Find and Replace feature? Explain steps to perform Find and Replace operation?
- Q4. Explain steps to insert cells, rows and columns in worksheet.
- Q5. How you can set margins for headers and footers?
- Q6. Explain filter and sort operation in details.
- Q7. What is the difference between function and formula in Excel?
- Q8. Explain locking rows and columns by splitting panes and freezing panes.

Answers key for objective questions

- Q1: c
- Q2: c
- Q3: b
- Q4: b
- Q5: a
- Q6: a
- Q7: c