



## CYBERWAVE

Foundations of Information & Communication Technology



INFOBITS

EXERCISES

LAB ACTIVITY

**PROJECT WORKS** 

Updated to Windows 10 MS Office 2010

MS Excel & Scratch



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# CYBERVAVE

Foundations of Information & Communication Technology



**INFORMATIX** 

computer education





(Foundations of Information & Communication Technology)

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## Preface

We are living in a world powered by computers. Today, computers are present in all sectors of our society. Thus, knowledge of Computer Science is increasingly becoming an essential skill for staying competitive in the future.

**Cyber wave** Computers is a series of 10 books for classes 1 to 10. The series introduces concepts in a step-by-step manner using simple language. The content provides the latest facts and figures. The screenshots included in the series are of **Windows 7**, updated to **windows 10** and **Microsoft Office 2010** version.

In Books 1 and 2, the basics of computers, including its various parts, have been introduced. MS Paint software, which will help students to acquire skills for using mouse and keyboard, has been introduced. In Books 3 to 10, programming language software, animation software and coding have been introduced in respective classes.

Most of the topics/chapters have been covered in a child-friendly manner along with sufficient definitions, diagrams and tables.

Activities are designed to bring out the joy of learning by discovering. Exercises, Worksheets, lab questions have been developed keeping in mind the learning ability of the students.

We sincerely welcome constructive feedback and suggestions to improve the series which will be incorporated in further publication.

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With regards Informatix & Team

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# 1 Introduction to MS Excel

It is important to familiarize yourself with the interface to work within any environment with ease. MS Excel provides an excellent user interface based on the task you need to perform. This chapter will introduce you how to perform. And this chapter will also introduce you to some of the basic tools and functions. You will use these tools and functions to analyze, share, and manage your data with ease.

MS Excel 2010 is advanced software which can perform several functions on text and numerals simultaneously. MS Excel 2010 is a proficient software which combines formatting features with automatic calculating features. It can also perform several advanced functions, graphs and charts.

#### Worksheet and Workbook



In our daily activities we deal with a lot of data. Almost everything that we do is some, related to numbers. Worksheet is the area on which the data is entered in Excel. It is also called as electronic Spreadsheet. A Worksheet consists of rows and columns. The columns are vertical division and are lettered as A,B,C. The rows are the horizontal division which are numbered from 1 to 10,48,576. There are 16,384 columns named A through XFD and 10,48,576 Rows in a Worksheet. The intersection of a Row and a Column is called a Cell. The combination of the column name and row number is referred to as the cell address. For instance the cell address of the top most left cell is A1 (which means Column A and Row 1).

Workbook is the file where data is stored. Many Worksheets can be stored in a Workbook. Thus, a workbook is a multi-page of worksheets.

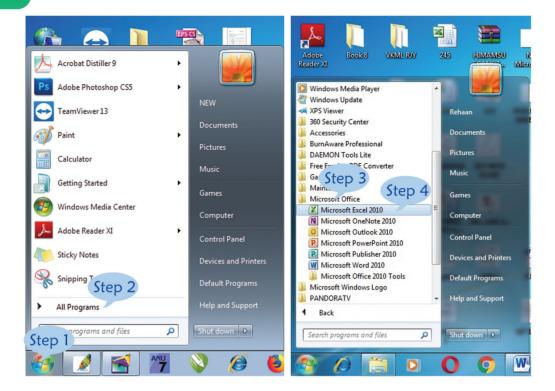
## **Getting Started**



#### To open MS Excel

- O Click at Start.
- Click at All Programs
- Click at Microsoft Office
- Click at Microsoft Excel 2010

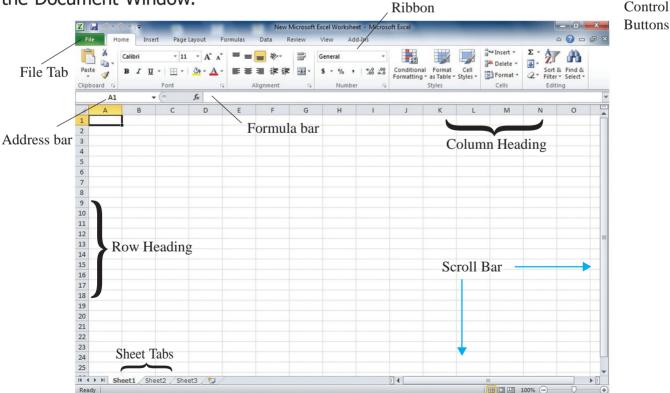
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## The parts of Excel Screen



The Excel screen has two windows, which are nested one within another. The larger of these is called the Application Window and the smaller window is called the Document Window.  $_{
m Ribbon}$ 





The File tab replaces the Office button from Excel 2010. This button is found at the top left part of the MS Excel 2010 window. This button helps us to perform basic functions. When the user



clicks this button, a drop down menu appears and you can find, new, open, save and print etc., file menu options. Using this button we can create a new workbook, open an existing one, save, print, close the current workbook, etc.

## **Quick Access Toolbar**



By default this tool bar appears next to the MS Office button. The Quick Access Toolbar helps us to access the frequently used commands. In other words, it is a shortcut to frequently used commands. By default only three buttons appear on this tool bar namely Save, Undo and Redo. You can add some more buttons that represent commands to the quick access toolbar.

**The Save button**: It is to save the work book. The keyboard shortcut for save is Ctrl + S.

**The Undo button:** It is to roll back an action. The keyboard short cut for Undo is Ctrl + Z.

**The Redo button :** It is to apply the same action again. The keyboard shortcut for Redo is Ctrl + Y.

Other commands can be added by right clicking on the command and selecting the option Add to Quick Access Toolbar.



Next to the Quick Access toolbar is the Title bar. On the Title bar, Microsoft Excel displays the name of the workbook you are currently using and the application name.



Ribbon contains commands organized In three components:

- 1. Tabs
- : They appear across the top of the Ribbon and contain groups of related commands. File, Home, Insert, Page Layout are examples of tabs.
- 2. Groups
- : They organize related commands; each group name appears below the group on the Ribbon. For example, group of commands related to fonts or group of commands related to alignment, etc.
- 3. Commands: Commands appear within each group as mentioned above.





The cell entries of the current cell displayed on the Formula bar. The formula bar can. be used to enter data in the current cell also. If you do not see the Formula bar in your window, perform the following steps:

- 1. Choose the View tab.
- 2. Click Formula Bar in the Show/Hide group. The Formula bar appears.



The Status bar appears at the very bottom of the Excel window and provides such information as the sum, average, minimum, and maximum value of selected numbers. You can change what displays on the Status bar by right-clicking on the Status bar and selecting the options you want from the Customize Status Bar menu. You click a menu item to select it. You click it again to deselect it. A check mark next to an item means the item is selected.



The current cell address appears on the left side of the Formula bar.

### **Info Bits**



- O Workbook is a file where data is stored.
- O Many worksheets can be stored in a workbook.
- The quick access tool bar helps us to access the frequently used commands.

  The keyboard shortcut key for minimizing/maximizing the ribbon is Ctrl + F1.

### **Let us Practice**

II.

3.

The Excel screen has \_

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	1	Whe	ro i	anh	the	namo	of the	current	workho	ملا	ann

1.	Where does the name of the current workbook appear?
2.	What does the ribbon contain ?
3.	What is the default number of rows in a MS exel 2010 work sheet ?
4.	What does the status bar do ?
5.	Write the history of ms excel.
6.	Draw the ms excel 2010 screen neatly and mention the parts.
7.	What is the use of quick access toll bar ?
Fill	in the blanks.
1.	Microsoft originally marketed a spreadsheet program called in 1982

windows.

The first version of Excel was released for the Mac in

	4.	The larger window in the excel screen is the	window.
	5.	The Quick Access Toolbar is in the corner of the Exce	l screen.
III.	Writ	te true (T) for a correct statement and false (F) for an incorrect sta	tement.
	1.	The Quick Access tool bar cannot contain more than three buttons	
	2.	The Quick Access toolbar provides access to frequently used commands.	
	3.	The Status bar appears at the very bottom of the Excel window.	
	4.	You can change the number of items displayed on the Status bar.	
	5.	The first version of Excel was released for the Mac in 1985.	

#### IV. Match the following.

- 1. Title bar
- 2. Ribbon
- 3. Status bar
- 4. Quick access tool bar
- 5. Vertical Scroll bar

- a. Scrolling up and down.
- b. Information about the selected item.
- c. Frequently used commands.
- d. Name of the file.
- e. Tabs and commands.



#### I. Do the following.

- 1. Click on the start button.
- 2. Open programs menu and then
- 3. Click on Microsoft office button.
- 4. Open MS Excel 2007. (Do it at least 3 to 4 times)
- 5. Create time table of your class in excel work sheet.
- II. Collect the screen of various versions of MS Excel and write their features in your note book. If necessary get help from your teacher and internet.

# Working with worksheet

#### Move around worksheet



The keyboard and the mouse can be used to move around the worksheet. The four arrow keys and the four destination keys ie.PgUp, PgDn, Home and End key are used to move around the worksheet. The above keys can be used along with combination of Ctrl and Shift key to move faster in the workbook.

## One cell at a time



- The Down Arrow Key is used to move the cursor downward one cell at a time.
- The Up Arrow Key is used to move the cursor upward one cell at a time.
- The Right Arrow Key is used to move the cursor one cell right at a time.
- The left Arrow Key is used to move the cursor one cell left at a time.
- The Tab Key is used to move the cursor one cell right at a time.
- The Shift+Tabkey is used to move the cursor one cell left at a time.

After pressing Up Arrow this will be the active Cell. After pressing Left Arrow this will be the active Cell. Present Active cell after pressing Right Arrow this will be the active Cell. After pressing Down Arrow this will be the active Cell

## One screen at a time



Moving one cell at a time may be very slow at times when the user has to scroll one part of the worksheet to another. The set of direction keys moves one screen at a time are given below.

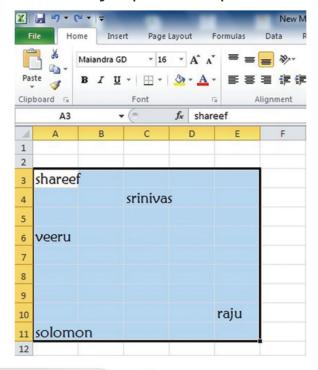
- The PgDn key is used to move down one screen.
- The Alt+PgDn key is used to move right one screen.
- The PgUp key is used to move up one screen.
- The Alt+PgUp key is used to move left one screen

#### To move within active area



Excel allows the user to move only to cells that are non-empty. The area in the worksheet that contains data is called as the active area.

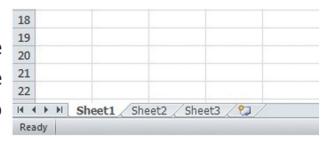
- The Ctrl + Right arrow is used to jump to the right most cell in the same row.
- The Ctrl + Left arrow is used to jump to the left most cell in the same row.
- The Ctrl + Down arrow is used to jump to the down most cell in the same column.
- The Ctrl + Up arrow is used to jump to the top most cell in the same column.



#### One sheet at a Time



Excel provides only two keys to move across sheets. Ctrl+PgDn key is used to move to the next sheet Ctrl+PgUp key is used to move to the previous sheet.



## Moving around the worksheet using mouse



Before we learn how to move around the worksheet using the mouse let us have a look at the following table, which illustrates the different shapes of the mouse pointer when it moves around the Excel window. The pointer shape changes

to signal what will happen if the user clicks the mouse in the area of window. The various mouse pointer shapes and where they appear are given here:



The F5 function key is the "Go To" key. If you press the F5 key, you are prompted for the cell to which you wish to go. Enter the cell address, and the cursor jumps to that cell.

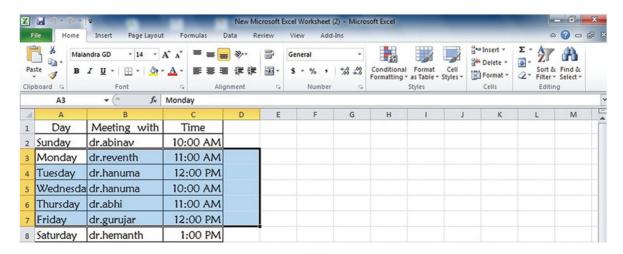
- O Press F5. The Go To dialog box opens.
- O Type J3 in the Reference field.
- Press Enter. Excel moves to cell J3.
   You can also use Ctrl+G to go to a specific cell.
- O Hold down the Ctrl key while you press "g" (Ctrl+g). The Go To dialog box opens.



If you wish to perform a function on a group of cells, you must first select those cells by highlighting them. The exercises that follow teach you, how to select. Note that "Extend Selection" appears on the Status bar in the lower-left corner of the window. You are in the Extend mode.



You can select an area by holding down the left mouse button and dragging the mouse over the Area.



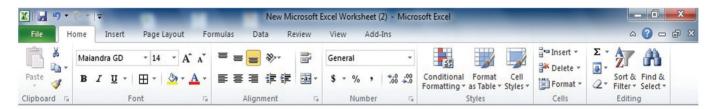
Excel commands can be given in one of the following ways:

- 1. Choosing an option from the Tab and Ribbon.
- 2. Choosing an option from the shortcut menu.
- 3. Select a tool from the Quick Access toolbar.

## Choosing an option from the tab ribbon



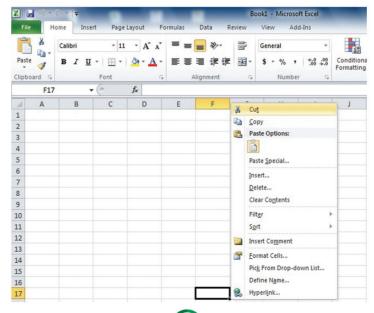
Tabs are primary means of performing tasks such as opening, copying, printing a worksheet or creating a chart. Tabs can be executed by pointing the mouse pointer to the Tab name and clicking the mouse button. A drop down ribbon is displayed. Choose a command by pointing to the desired option and then clicking the left mouse button. Different ribbons appear for different Tabs.



### Choosing an option using a shortcut menu



By clicking the right mouse button, Excel opens a shortcut menu. By choosing an option you can give command to excel.



## Info Bits 🕏



II.

- Use Backspace ← key to delete the data immediately to the left of insertion pointer.
- We can move around in the worksheet either by mouse or keyboard.
- Ms excel saves all the workbooks with the extension(.xlsx) and the shortcut for saving is ctrl+s.

## **Let us Practice**

I.	Answer	the fo	ollowina	questions
				9 0. 00 0. 0

Alls	swer the following questions.
1.	What are the input devices that are used to navigate in the Excel sheet ?
2.	What are the keys used for navigation in an Excel sheet ?
3.	What is the use of the Ctrl key in navigating in Excel?
4.	What is the use of the name box ?
5.	Write about Go to command.
6.	How can you select a range of cells ?
7.	What are the ways used to give commands in Excel 2010 ?
Fill	in the blanks.
1.	The key is used to move the cursor downward one cell
	at a time.
2.	The key is used to move the cursor one cell left at a time.
3.	The key is used to move right one screen.
4.	The key is used to move up one screen.