MICROSOFT EXCEL 2007

Microsoft Excel is the most popular spreadsheet software in the Microsoft 2007 Office suite. It is a powerful tool that helps to organize, calculate and analyze data in rows and columns. It also allows us to represent data pictorially in the form of chart.

FEATURES OF EXCEL

- **Functions and formulas:** Functions are the built-in formulas used for calculating percentage, interest, average etc., in MS Excel. Formulas are mainly used for performing simple and complex calculations.

- **Formatting features:** Improve the appearance of data.

- **Auto-calculation:** The data is automatically recalculated in the whole worksheet if any change is made in a single cell.

- Fast searching and instant replacing of data.

- Entering data in series using AutoFill option.

- Data can be viewed in a graphical form as charts, which help to understand, analyze, and compare data in an effective manner.

These advanced features have made MS Excel the first choice for professionals to quickly perform lengthy accounting and financial tasks, and take immediate decisions.
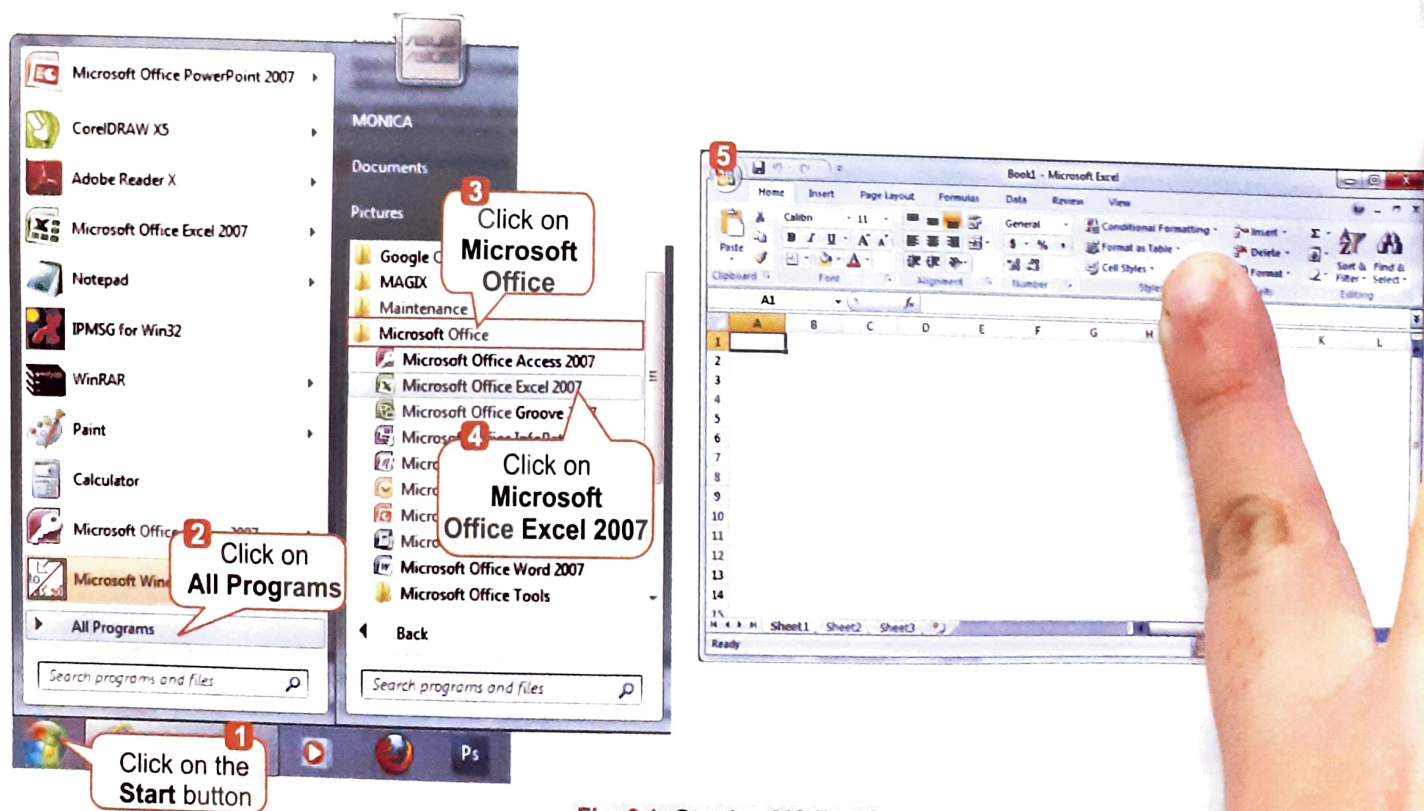
STARTING MS EXCEL

Fig. 6.1: **Starting MS Excel**

The MS Excel file is referred to as a workbook, in which you work and store your data. Each workbook consists of several worksheets. It is similar to pages in a notebook. Worksheets are like pages and workbook is like a notebook. The Excel window that appears on the screen is called a workbook. It is assigned a temporary name **Book1**. A worksheet is a grid like area, made up of rows and columns, where you enter and work with data. By default, an Excel workbook displays 3 worksheets at the bottom, with the names **Sheet1**, **Sheet2** and **Sheet3**. We can add any number of worksheets in a workbook according to the limits of memory available on a computer.

A worksheet consists of 1048576 rows and 16384 columns. Columns are represented by alphabets on the top and rows have numbers on the left side of the worksheet.
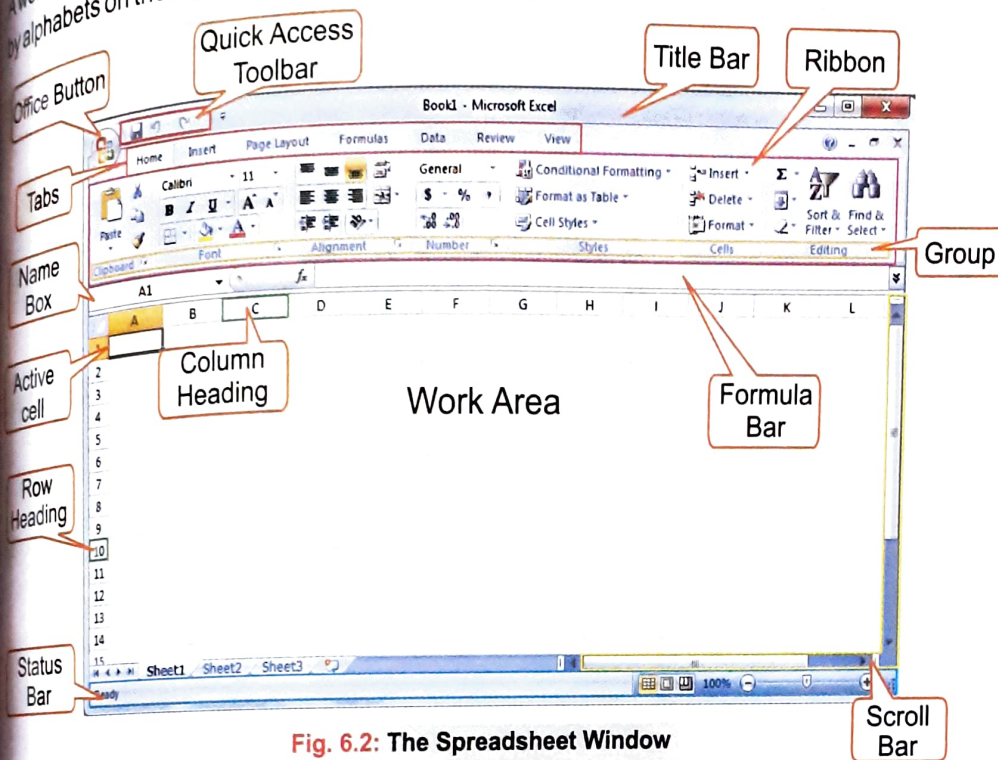
Fig. 6.2: **The Spreadsheet Window**

COMPONENTS OF WORKSHEET

CELL

A cell is an intersection of a column and a row in a worksheet. Each cell is denoted with a cell address. For example, A5 refers to the cell at the intersection of column A and row 5. Data is stored in a cell. A cell can contain up to 32,767 characters.

ACTIVE CELL

When you click on a cell, a thick black border differentiates it from the rest of the cells. It indicates the current cell is active. This highlighted box is called **Cell pointer**. Data can be entered only in a cell where the pointer is placed.

NAME BOX

Name box is located above the Column heading on the left side of the window. This area displays the location of the cell pointer.
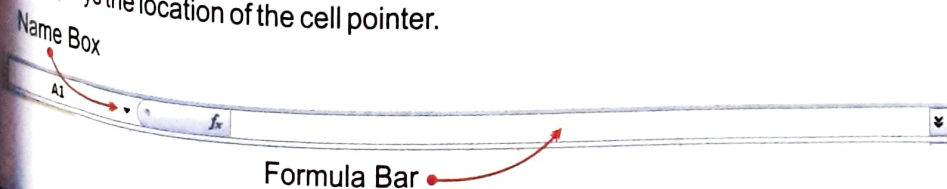
FORMULA BAR

The Formula Bar is located to the right of the Name box. This bar shows the characters and formulas that you enter in an active cell.

COLUMN HEADINGS

Alphabets across the top border of each worksheet are called column headings. These headings identify columns with letters A to Z, AA through AZ and upto XFD for a total of 16,384 columns.

ROW HEADINGS

Row headings are the numbers marked as 1 through 1,048,576 along the left border of the worksheet.

STATUS BAR

The Status bar is located at the bottom of the Excel window. It gives us information about the current selection. I includes the name of the currently selected command or current activity. It also displays warning messages.

Ready   100%

◼◼ MOVING AROUND THE SPREADSHEET

To input data in a worksheet, we have to move the cell pointer from one cell to another with the help of various keys defined in the given table.

Command	Function
→	Moves one column right.
←	Moves one column left.
↑	Moves one row up.
↓	Moves one row down.
Page Up	Moves the active cell highlight to first row of the spreadsheet.
Page Down	Moves the active cell highlight to the next sheet.
Ctrl+Home	Moves to the first cell of the topmost row.
Ctrl+End	Moves to the last used cell of spreadsheet.

◼◼ ENTERING DATA

Create the worksheet as shown in the figure 6.3.

✦ Open a new workbook. By default, Sheet1 is the active worksheet.

✦ Click on cell D1 and type 'Weekly Expense'. Click on **Merge & Center** button in the **Alignment** group on **Home** tab.

✦ Click on cell A2 and type **Items**. Press the Right arrow key. Type **Monday** in B2 and **Tuesday** in C2. Likewise, enter data in rest of the cells.

✦ Click on cell A3. Type **Eatables** and press the **Enter** key. The cell pointer shifts to cell A4.

Fig. 6.3: Entering Data in a Spreadsheet

Type 'Cold Drink' and press Down arrow key to move to cell A5 and type 'Milk'. Similarly, enter the remaining data.

TYPES OF DATA

Three types of data can be entered in MS Excel worksheet. They are:

* Numbers
* Text
* Formulae

NUMBERS

Numbers are values that consist of numerals like 0 to 9 and the characters like +,-,!, @, %, ^, &, etc. are included in numeric data. They can be used in calculations. In addition to actual numbers, Excel also stores date and time as numbers.

By default, numbers are right aligned in a cell.

TEXT

Text data can contain letters, numbers, spaces and special characters such as ! and &. Text data is not used in calculations.

By default, text data is left aligned in a cell.

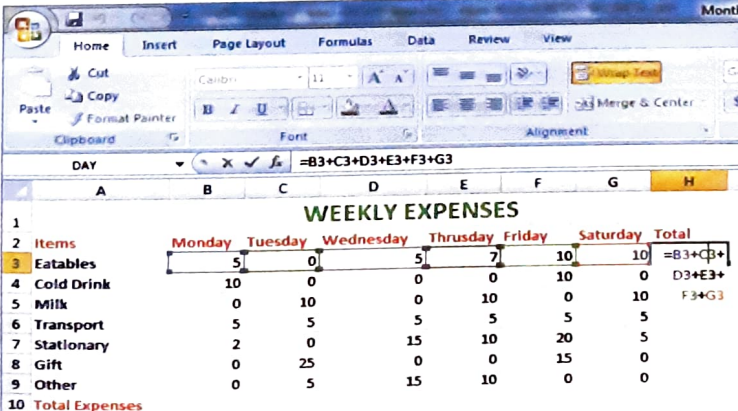Most often text entries are used for worksheet headings, names and for identifying columns of data.

FORMULAE

A formula is a mathematical equation involving number values, operators and cell addresses used for performing, calculations on worksheet. Formulae can range from basic mathematical operations to complex calculations. Formulae begin with an equal (=) sign.

PERFORMING CALCULATIONS

Excel has a powerful feature to perform calculations on the data. We can perform addition, subtraction, multiplication, and division of numbers either using formulas or using functions.

Formulae are equations that perform calculations on values in our worksheet. The result of the calculation is displayed in the cell where the formula is entered. A formula consists of combination of cell references, numbers, operators and Excel functions.

A	B	C	D	E	F	G	H
1			WEEKLY EXPENSES				
2 Items	Monday	Tuesday	Wednesday	Thrusday	Friday	Saturday	Total
3 Eatables	5	0	5	7	10	10	=B3+C3+
4 Cold Drink	10	0	0	0	10	0	D3+E3+
5 Milk	0	10	0	10	0	10	F3+G3
6 Transport	5	5	5	5	5	5	
7 Stationary	2	0	15	10	20	5	
8 Gift	0	25	0	0	15	0	
9 Other	0	5	15	10	0	0	
10 Total Expenses							

Formula bar: =B3+C3+D3+E3+F3+G3

Fig. 6.4: Applying Formula

Example

To calculate the total expense in H3, type = B3 + C3 + D3 + E3 + F3 + G3 and press the Enter key. The sum of the values in the cells B3 to G3 is calculated and displayed in the cell H3.

✦ We can use upper or lower case letters while entering the cell address in a formula.

✦ Excel also provides a quicker and easier way of performing calculations. Click on the **AutoSum** button present on the **Formulas** tab. Excel suggests a range which we can either accept or can select a different range.

✦ Move the cell pointer in cell H4. Click on the **AutoSum** button. Excel suggests the range B4 : G4. Press the Enter key. The sum of the values in cells B4 to G4 is calculated and displayed in cell H4.

NOTE

Excel also has special built-in mathematical functions. Instead of typing such a long formula, the SUM function can also be used.

E.g., =SUM (B4 : G4) and press the Enter key.

✦ If a number of cells need the same formula, it can be copied and pasted on the same worksheet.

✦ Similarly, we can use the **AVERAGE** function.

WORKING WITH WORKSHEET

SWITCHING BETWEEN WORKSHEETS

When we add a number of worksheets, only a few worksheets can be seen on the screen. To switch between worksheets, click the arrow buttons on the worksheet tab.

| I◀ ◀ ▶ ▶I | Sheet1 | **Sheet2** | Sheet3 | ✿ |

RENAMING A WORKSHEET

✦ To rename a worksheet, double-click on the Worksheet tab which you want to rename. It will be highlighted.

✦ Type a new name and press **Enter** key.

ADDING A NEW WORKSHEET

✦ To add a new worksheet, select the sheet before which you want to place a new worksheet.

✦ Select **Insert > Worksheet**.   Or

✦ Right-click on the **Sheet** tab and select **Insert** option.

REMOVING A WORKSHEET

✦ Place the mouse pointer on the worksheet which you want to delete.

✦ Right-click on the worksheet and select **Delete** option.   Or

✦ Select **Delete** option in the **Cells** group on the **Home** tab and further select **Delete sheet** option from the menu list.

- Microsoft Excel is the most popular spreadsheet software in the Microsoft 2007 office suite.
- Worksheets are like pages and workbook is like a notebook.
- By default, an Excel workbook displays three worksheets at the bottom, with the names Sheet1, Sheet2 and Sheet3.
- In MS Excel worksheet, three types of data can be entered i.e., Numbers, Text and Formulae.
- A formula is a mathematical equation involving number values, operators used for performing calculation on a worksheet.
- Arrow buttons on the worksheet tab are used to switch between worksheets.

Brain DEVELOPER

Fill in the blanks:

By default, a workbook contains .... worksheets.

.... button places the contents in the centre of the cells across a number of columns/rows.

.... bar shows the characters and formulas entered in an active cell.

A worksheet becomes active by clicking on the .... tab.

Name box is present above the .... heading.

The .... scrolling buttons to the left of sheet tabs let you move through the worksheets quickly.

Pressing the .... key opens the Save As dialog box.

- Column
- Tab
- Three
- Sheet
- Merge & Center
- F12
- Formula

HINTS

State True or False :

Microsoft Excel is the most suited program for documentation. ☐

A workbook can contain any number of worksheets according to a user's need. ☐

Letters A to Z, AA to AZ are the Row headings. ☐

Status bar displays the currently selected commands. ☐

Data cannot be entered in an active cell. ☐

Arrow buttons present on the worksheet tab allow the user to switch between worksheets. ☐