

IT @ SCHOOL

Computer Science - Book 4

TERM 1



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Computer Science - Book 4

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❧ PREFACE ❧

Computers play a vital role in the modern world, and even the most basic jobs today involve technology. Therefore, computer education becomes essential in any student's development. Expertise in computing enables children think critically, be more creative and innovative, giving space for collaborative work and individual effort.

The series of books (Class III – IX) aim to holistically develop digital skills, keeping pace with the dynamically changing industry requirements.

IT education has no boundaries and irrespective of the field of work, each one is expected to have the following digital skills:

- MS Office (MS Word, MS Excel, MS PowerPoint)
- Photo / Image Editing
- Programming
- Website development

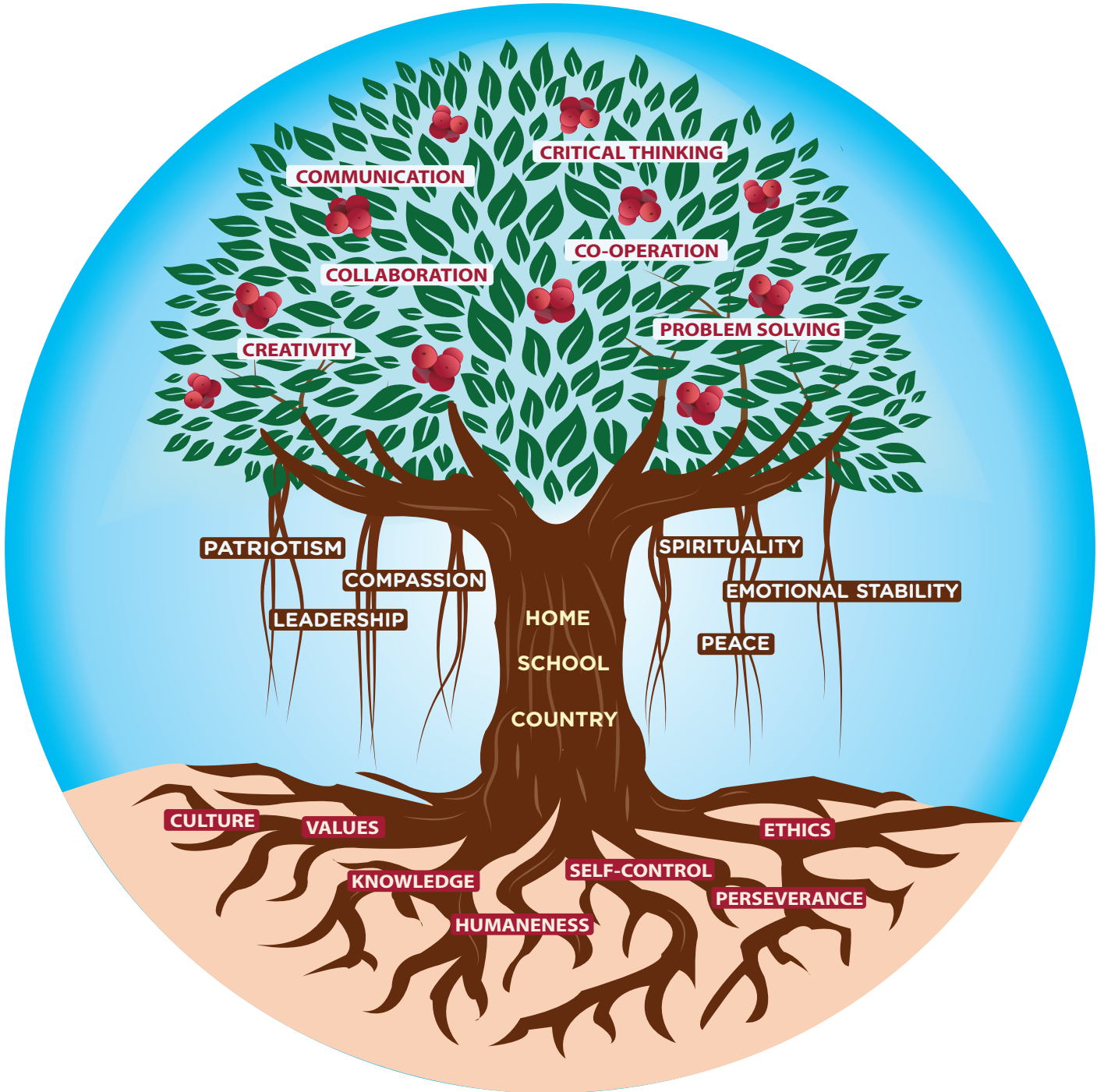
The enriched curriculum therefore covers a wide variety of topics across various classes: *TUXPAINT; MS Word 2007 (Level I, II & III) ; MS Excel 2007 (Level I, II & III); MS PowerPoint 2007 (Level I & II); Image / Photo editing software using GIMP 2.8; Scratch Programming; HTML Programming; Web creation tool using WordPress.*

The curriculum uses only open source software (freely available on the Internet) installed in Windows 7 Operating system.

A brief description of every concept and its application / purpose is provided in every lesson with colorful screen shots. This not only attracts the readers but also gives them an experience of self-learning. '**Activity Based Learning**' exercises have been included as part of the curriculum.

We hope this text book finds its place in the readers' library for future references.





INDEX

S NO	TOPIC	PAGE NUMBER
MS EXCEL -LEVEL II		
1	Basics of Excel & Working with Worksheets	1
2	Conditional Formatting, Change the Sheet Tab Colour, Creating a Header and a Footer, Freezing Panes	7
3	Modifying the Page Settings - Setting and Clearing the Print Area & Print Options, Simple Math & Text Functions	16
4	Creating & Formatting Charts, Sorting Data, Filtering Data	25





Ms Excel-Level II





BASICS OF EXCEL & WORKING WITH WORKSHEETS

ESSENTIAL LEARNING SKILLS

Microsoft Excel is one of the most popular **spreadsheet** program. It is widely used to perform mathematical calculations. The data is spread in a tabular form consisting of rows and columns of boxes called cells. Data can be entered in a cell. Excel provides inbuilt features and tools such as formulae, functions and data analysis tools that make it easier to work with large amount of data.

An Excel file is called a **Workbook** - Default title is Book1.

A **Worksheet** is a grid like area, made up of rows and columns, where you can enter and work with data. Columns are represented by alphabets on the top and rows have numbers on the left side of the worksheet. Default worksheet tabs - Sheet1, Sheet2, Sheet3. A worksheet consists of 1,04,576 rows and 16,384 columns.

COMPONENTS OF A WORKSHEET

1. **Cell:** A cell is an intersection of a column and a row in a worksheet. Each cell is denoted with a cell address (also called **cell reference**). For example, A5 refers to the cell at the intersection of column A and row 5.

When a cell is clicked, a thick black border (also called **cell pointer**) differentiates it from the rest of the cells. It indicates the current cell is active. Data can be entered only in a cell where the pointer is placed.

A **Range** is a group of contiguous cells, which form the shape of a rectangle. It can be as small as a single cell or as big as the entire worksheet. You can specify a range by writing the starting cell address followed by the ending cell address, both separated by a colon (:), For example, C1:F10

2. **Ribbon:** The Ribbon is the bar at the top of the Microsoft Excel window. It is the primary interface with Excel. It allows you to access most of the commands available to use in Excel. The Ribbon is composed of three parts: Tabs, Groups, and Commands.

Ribbon is broken into **Tabs** (Home, Insert, Page Layout...) - Tabs are broken into groups (Clipboard, Font, Alignment) - Each group contains three or more related commands. **Commands** are controls that enable you to accomplish specific tasks, such as bolding a word, wrapping text, changing the format of a number to percent, or adding a column.

The **Eight main tabs** - Home, Insert, Page Layout, Formulas, Data, Review, View, Help. In addition to the eight main tabs, there are numerous **Tool Tabs** which include less commonly used commands. Some of the most commonly used tool tabs are: **SmartArt, Chart, Drawing, Picture, PivotTable, PivotChart, Header & Footer**

3. **The Quick Access Toolbar**

The Quick Access Toolbar is located in the top-left corner of Microsoft Excel window. It includes commonly used commands and is always accessible. By default, the Quick Access Toolbar includes **three commands: Save, Undo, and Redo.**

To add additional commands to the Quick Access Toolbar

- a. Click the drop-down arrow on the far right of the **Quick Access Toolbar.**
- b. Select **More Commands...** towards the bottom of the list that appears:



- c. Select a command from the list and click **Add > >**.
- d. Click **OK** to make your changes.

Adding Ribbon Commands to the Quick Access Toolbar

If you find yourself using the same commands or group of commands frequently, you can quickly add them to the **Quick Access Toolbar**:

- a. Right-click on the command or on the group name.
- b. Select **Add to Quick Access Toolbar**:

To remove a tool from the Quick Access Toolbar

- a. Click the drop-down arrow to the right of the **Quick Access Toolbar** and select **More Commands....**
- b. Highlight **the tool** in the *right* column and click << **Remove**.

To move the Quick Access Toolbar below / above the Ribbon

- a. Click the drop-down arrow to the right of the **Quick Access Toolbar** and select Show Below the Ribbon / Show Above the Ribbon.

4. **Name box** (left) and **formula bar** (right) - Located below the Ribbon

Name box shows address of current cell - **Formula bar** shows contents of current cell.

5. The **Status Bar**, located at the bottom of Excel, shows basic information about your workbook and enables you to change your viewing settings. Specific items on the Status Bar include:

- a. **Ready status.** *Ready* indicates that you are ready to begin entering data. *Enter* indicates that you are working within a cell. *Edit* indicates that you are editing existing data within a cell.
- b. **Information about highlighted data.** You can customize what you see, but things you see by default include *Average*, *Count* and *Sum*.
- c. **View controls.** You can choose from a selection of views (**Normal**, **Page Layout**, and **Page Break Preview**).
- d. **Zoom control.** You can zoom in or out, to make the workbook bigger or smaller, based on your personal preference. Zooming changes the size of what you're viewing. It does not change what you actually print out.

6. **Keyboard Navigation Table**

Key	Ready OR Enter	Edit OR Point	
Enter	Move Down	Accept changes and move down	
Shift-Enter	Move Up	Accept changes and move up	
Tab	Move Right	Accept changes and move right	
Shift-Tab	Move Left	Accept changes and move Left	
Arrow Keys	Moves to another cell	Moves between characters in cell	Points to an address of a cell

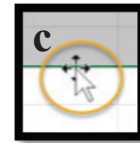
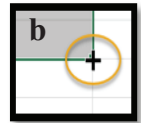
Home	Moves to first column	Moves to the front of the line in the cell	Points to cell in column A
Ctrl-Home	Moves to the beginning cell of the worksheet (A1)		Points to the beginning of the worksheet

7. Entering Data in Microsoft Excel Worksheets

Microsoft Excel worksheets are made up of rows and columns. Rows are defined by numbers and columns are defined by letters. When you open Excel, cell A1 is automatically highlighted. Anything you type will show up in this cell. To enter text into a different cell, simply select the cell by clicking on it and then begin typing.

Before entering text, it is helpful to be aware of the three shapes your cursor will take and what each one means:

- a. **The thick white cross.** This is used for cell selection.
- b. **The thin black cross.** This is used for autofilling data and for copying formulas, both of which will be covered later in this course.
- c. **The four-headed arrow.** This is used for moving cells or other items.



To enter text in Microsoft Excel:

- Select the cell into which you wish to enter text by clicking on it.
- Begin typing and press Enter key. Excel moves the cell cursor down one cell.

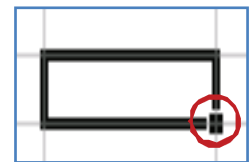
(Note that in addition to showing up in the cell, the text you are typing also shows up in the **Formula Bar**)

In Excel, the worksheet consists of a grid of *columns* and *rows* that form *cells*. You enter three types of data in cells: **Text, Numbers and formulas.**

- **Text** are descriptive pieces of information, such as names, months, or other identifying statistics, and they usually include alphabetic characters.
- **Formulas** are instructions for Excel to perform calculations.

8. Fill Handle

The **Fill Handle** is in the bottom right corner of the selected cell. When you place your mouse over this handle, it changes from a thick white cross, to a thin black cross. Once you see the thin cross (no arrows) you can click and drag the cell to fill its contents in a single direction (up, down, left or right). If you want to go in two directions, you must first complete one way, let go of the mouse and then drag the handle in the second direction.



When you use the **Fill Handle** to pull down a single number or plain text, it will copy the data. When you use the **Fill Handle** to pull down a text with numbers, a date, a month or a weekday it will fill in as a series.

Text		123		2/1/2002		Exam 1		Friday		February
Text		123		2/2/2002		Exam 2		Saturday		March
Text		123		2/3/2002		Exam 3		Sunday		April

When you select two or more numbers (including dates) and then use the **Fill Handle**, Excel will fill in the series, following the original pattern of the selected cells. It can only follow simple addition and subtraction patterns.

**The First Electronic Spreadsheet Was Visicalc,
Which was Created in the The Early 1980S**

ACTIVITIES

- 1 Identify the following in the Excel worksheet.
Quick Access Toolbar, File tab, ribbon, formula bar, name box, active cell, Row header, Column header, Sheet tab.
- 2 Enter the following data in MS-Excel worksheet and save it as CL6one.xlsx

S No	Name	DOB	Sub1
1	Akil Das	8/9/2006	74
2	Raghani Ranjan	22/4/2006	32
3	Vir Sarvesh	06/12/2006	65
4	Ganeshika Ravi	11/9/2006	91

- a) Centre align all the columns in the table.
- b) Apply Bold effect, font as 'Cambria', size -14, colour as red for the data range.
- c) Add the heading as 'MARK SHEET' for the table.
- d) Apply a suitable border.
- e) Find the highest and least score.
- f) Add a column – 'UpdatedSUB1' beside score, whose values are an increase of 1.5 with the existing score .

BRAIN DEVELOPER

- You can activate a cell by
 - Pressing the Tab key
 - Pressing an arrow key
 - Clicking the cell
 - All of the above
- Which function key should you press to get into the edit mode of a cell?
 - F1
 - F9
 - F2
 - F10
- Which area in an excel window allows entering values and formulas?
 - Title bar
 - Formula bar
 - Menu bar
 - Standard toolbar
- An excel workbook is a collection of
 - Workbooks
 - Charts
 - Worksheets
 - Worksheets and charts
- Excel files have a default extension of
 - Xlsx
 - Wk1
 - Xlw
 - 123
- The cell address is also called _____.
- Which of the following is not a valid data type in excel
 - Number
 - Header and Footer
 - Character
 - Date/time
- Without using the mouse or the arrow keys, what is the fastest way of getting to cell A1 in a spreadsheet?
 - Press Ctrl +Home
 - Press Shift + Home
 - Press Home
 - Press Alt + Home
- In Excel rows are labeled by
 - letters
 - Numbers
 - Digits
 - Symbols
- In Excel, columns are labeled by
 - Letters
 - Numbers
 - Digits
 - Symbols



11. What button will add up a group of number?
- a. Equal button
 - b. Plus symbol button
 - c. AutoSum button
 - d. Insert button
12. Which of the following is a selected cell?
- a. current command
 - b. default option
 - c. active Cell
 - d. default cell
13. A file is called _____ and _____ a grid like area, made up of rows and columns, where you can enter and work with data in MS Excel.
14. Three types of data that can be entered in a workbook, are _____, _____ and _____.

Teacher's Signature

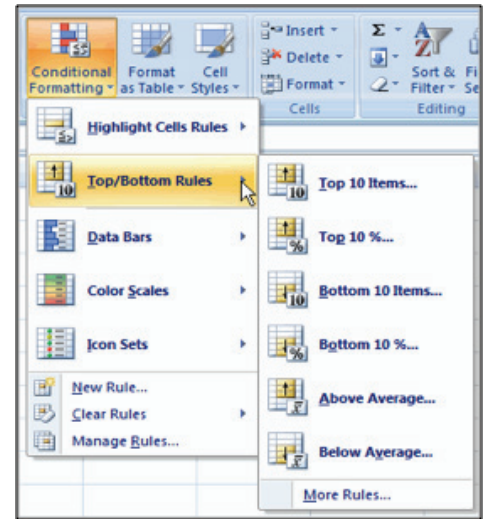
CONDITIONAL FORMATTING, CHANGE THE SHEET TAB COLOUR, CREATING A HEADER AND A FOOTER, FREEZING PANES

#ACTIVITIES: 1.1 (I, II), 1.2

Let's imagine you have a spreadsheet with thousands of rows of data. It would be extremely difficult to analyse the data just from examining the raw data. Excel gives us several tools that will make this task easier. One of these tools is called **conditional formatting**.

Conditional Formatting is a tool that allows you to apply formats to a cell or range of cells, and have that formatting change depending on the value of the cell or the value of a formula. For example, you can have a cell appear **bold** only when the value of the cell is greater than 100. When the value of the cell meets the format condition, the format you select is applied to the cell. If the value of the cell does not meet the format condition, the cell's default formatting is used. (**Default formatting** is the the formatting that you set up using the normal formatting tools, not necessarily the worksheet's default font and font size.)

A cell can have up to five format conditions, each with its own formats, in addition to the default value of "no formatting". This allows you to have different formats depending on the value of the cell. For example, if the value was greater than 200, you can display the text in red, but if the value is between 100 and 200, display the text in green.



With conditional formatting, you can apply formatting to **one or more cells** based on the value of the cell. You can highlight interesting or unusual cell values, and visualize the data using formatting such as data bars.

In this lesson, you will learn how to apply, modify, and delete conditional formatting rules.

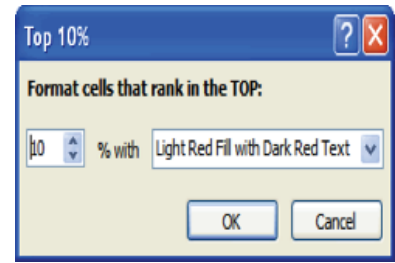
THE CONDITIONAL FORMATTING OPTIONS

There are many **conditional formatting** rules, or options, you can apply to cells in the spreadsheet. Each **rule** will affect selected cells differently. Before you choose a formatting rule, you must identify what questions you are trying to answer. For example, in a sales spreadsheet you might want to identify the salespeople with lower than average sales. To do this, you need to choose a conditional formatting rule that will show you this answer. Not all of the options will provide you with this information.

Some of the conditional formatting options include:

- Highlight cell rules:** This rule highlights specific cells based on your option choice. For example, you can choose for Excel to highlight cells that are greater than, less than, or equal to a number, and between two numbers. Also, you can choose for Excel to highlight cells that contain specific text, including a specific date. If you choose this option, a **dialog box** will appear, and you will have to specify the cells to highlight and the colour you would like to highlight the cells.
- Top/bottom rules:** This conditional formatting option highlights cell values that meet specific criteria, such as top or bottom 10 percent, above average, and below average. If you choose this option, a **dialog box** will appear, and you will have to specify the cells to highlight and the colour you would like to highlight the cells.

- c. **Data bars:** This is an interesting option that formats the selected cells with coloured bars. The length of the data bar represents the value in the cell. The longer the bar, the higher the value.
- d. **Color scales:** This option applies a two- or three-color gradient to the cells. Different shades and colours represent specific values.
- e. **Icon Sets:** in Excel make it very easy to visualize values in a range of cells. Each icon represents a range of values.



To apply conditional formatting

- i. Select the cells you would like to format.
- ii. Select the **Home** tab.
- iii. Locate the **Styles** group.
- iv. Click the **Conditional Formatting** command.

A menu will appear with your formatting options

- i. Select **one of the options** to apply it to the selected cells. A cascading menu will appear.
- ii. An additional dialog box may appear, depending on the option you choose.
- iii. If so, make the necessary choices, then click OK.

To remove conditional formatting rules

- i. Click the **Conditional Formatting** command.
- ii. Select **Clear Rules**. A cascading menu appears.
- iii. Choose to clear rules from the **entire worksheet** or the **selected cells**.

To manage conditional formatting rules

- i. Click the **Conditional Formatting** command.
- ii. Select **Manage Rules** from the menu. The Conditional Formatting Rules Manager dialog box will appear.
- iii. From here you can edit a rule, delete a rule, or change the order of rules.

TRY IT YOURSELF!

Use the MarkSheet Table workbook to complete this challenge.

- i. Apply conditional formatting to a range of cells with **numerical values**.
- ii. Apply a second conditional formatting rule to the same set of cells.
- iii. Apply a conditional formatting rule to a range of cells with **text**.
- iv. Explore the **Conditional Formatting Rules Manager** dialog box.
- v. Clear all conditional formatting rules from the worksheet.

CHANGE WORKSHEET TAB COLOR IN EXCEL

1. To change worksheet tab colour in Excel, select the worksheet tab whose tab colour you wish to change.
2. Click the “Home” tab in the Ribbon.
3. Then click the “Format” button in the “Cells” button group.
4. Then roll your mouse pointer down to the “Tab Color” command.

5. In the side menu that appears, click the colour you want to apply to the worksheet tab.
6. To open the “Colors” dialog box and select a color, click the “**More Colors...**” menu choice.
7. To remove a colour from a selected worksheet tab, click the “**No Color**” menu choice.
8. To more accurately view the colour selection you made, deselect the selected worksheet tab.

HEADER OR FOOTER

The content that appears in the top margin of an Excel worksheet is called Header and the content that appears in the bottom margin of an Excel worksheet is called Footer. Although Excel 2007 provides standard header and footer text that you can select from drop-down menus, you also can create a custom header or footer. In addition to typical header or footer items such as the page number, file name, and date or time, you can insert and format a picture. In addition, you can format the text in a header or footer just as you would any cell data.

To create a custom header or footer in Excel 2007, follow these steps:

1. Click the Page Layout button on the View tab of the Ribbon (or click the Page Layout View button on the Status bar).
2. Position the mouse pointer over the Click to Add Header section at the top or the Click to Add Footer section at the bottom.
3. Click to position the insertion point in the left, center, or right section of the header or footer area. Excel adds a Header & Footer Tools contextual tab with its own Design tab.
4. Click the Design tab if it isn't already selected, and then click any option in the Header & Footer Elements group:
 - a. **Page Number:** Insert a code that indicates the page number.
 - b. **Number of Pages:** Insert a code that indicates the total number of pages.
 - c. **Current Date** or **Current Time:** Insert the print date or time of day.
 - d. **File Path, File Name,** or **Sheet Tab Name:** Include file information.
 - e. **Picture:** Insert a graphic image, such as a company logo.
 - f. **Format Picture:** Resize, rotate, or crop a header or footer graphic image.
5. Repeat Steps 3 and 4 as needed, and also type any additional text you want for the header or footer. **You can format the header and footer text just as you would any cell data.**
6. Double Click in the worksheet area and then click the Normal button on the View tab to return to Normal view or press the ESC key.

FREEZING PANES

You may want to see certain rows or columns all the time in your worksheet, especially **header cells**. By **freezing** rows or columns in place, you'll be able to scroll through your content while continuing to view the frozen cells. The Freeze Panes command in Excel 2007 enables you to freeze portions of a worksheet, typically column and row headings, so that you can view distant parts of the worksheet while the headings remain in place. Freezing panes only affects the current worksheet. If you want to freeze other worksheets, you must select them individually and freeze them.

Follow these steps to freeze panes in a worksheet:

Position the cell cursor based on what you want to freeze:



- **Columns:** Select the column to the right of the columns you want to freeze. For example, click column B to freeze only column A.
- **Rows:** Select the row below the rows you want to freeze. For example, click row 4 to freeze rows 1, 2, and 3.
- **Columns and Rows:** Click the cell below the rows and to the right of the columns you want to freeze — essentially, the first cell that *isn't* frozen. For example, click cell B2 to freeze both column A and row 1.

In the Window group of the View tab, choose Freeze Panes → Freeze Panes.

- A thin black line separates the sections. As you scroll down and to the right, notice that the columns above and rows to the left of the cell cursor remain fixed.
- In the Window group of the View tab, choose Freeze Panes → Unfreeze Panes to unlock the fixed rows and columns.

NOTE: Normally when you press Ctrl+Home, Excel takes you to cell A1. However, when Freeze Panes is active, pressing Ctrl+Home takes you to the cell just below and to the right of the column headings. You can still use your arrow keys or click your mouse to access any cell.

ACTIVITIES

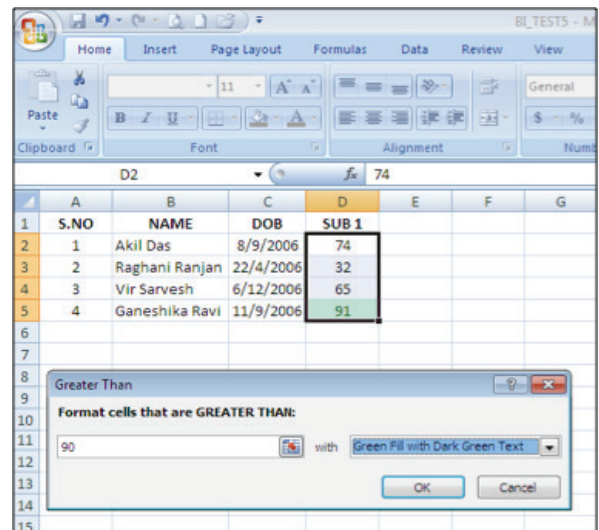
i) Using the CL6one.xlsx worksheet apply 'green fill with dark green text' for the cell(s) in Sub1 column where the score is above 90.

Step 1: Select the column Sub1 from D2 to D5

Step 2: Click the Conditional Formatting tool in the Home Tab.

Step 3: Select Highlight Cells Rules and Click Greater Than...

Step 4: Type 90 in the rectangular box and Click the dropdown list and Click 'green fill with dark green text'



ii) Using icon set → Format all cells based on their values → Icon 'green' colour for values >67, 'yellow', colour for values <67, 'red' colour when =33 in the following table

Rollno	Name	SUB 1
1	Vinay	89
2	Thaarika	33
3	Sudharsh	65
4	Praneetha	91
5	Anitha	54

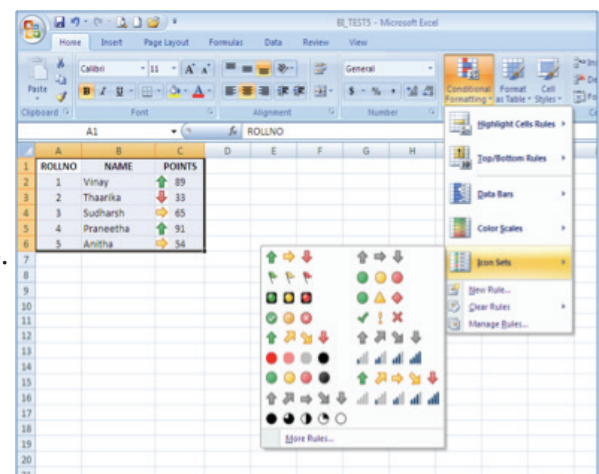
Step 1: Type the given table from A1 to C6.

Step 2: Select the data (Click and drag from cell C2 to C6)

Step 3: Click the Conditional Formatting tool in the Home Tab.

Step 4: Choose Icon Sets and Click the required type of Icons.

The output will appear as Shown in the picture.



2) Create the following table and save it as CL6two.xlsx

Sno	Name	Runs	Scored
1	Virat Kohli	79	
2	M S Dhoni	82	
3	Dinesh Karthik	52	
4	Suresh Raina	80	

i) In the above worksheet apply 'yellow fill' for the batsman who has scored above 80. [More rules -using top/bottom rules]

ii) In the above worksheet apply 'red fill' for the batsman who has scored below 60.

Step 1: Type the given table from A1 to C5.

Step 2: Select the data (Click and drag from cell C2 to C5)

Step 3: Click the Conditional Formatting tool in the Home Tab.

Step 4: Click More rules under Top/Bottom Rules

Step 5: In the dialog that appears click 'Format only values that are above or below averages.'

Step 6: Under Edit the Rules Description → Format Values that are → above and set fill format to Yellow color, Again → Under Edit the Rules Description → Format Values that are → below and set fill format to Red color

Step 7 : Click OK

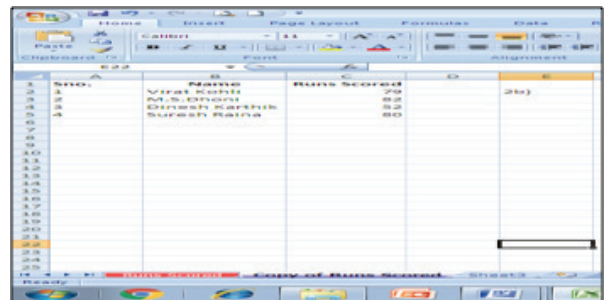
Changing the Sheet tab color

3. a) Open the excel file - CL6two.xlsx, create a copy of sheet1 using or by choosing

'Move or Copy' option by right mouse click on the worksheet in the same excel file.

b) Rename the sheet1, sheet2 as 'runs scored' 'copy of runs scored' respectively.

c) Change the sheet tab colour of 'runs scored' to 'red' and 'copy of runs scored' to 'blue' colour.



Step 1: Right Click on Sheet 1 and Click Rename → Type 'Runs scored'

Step 2: Right Click on Sheet 1 and Click Tab Color → Choose Red color

Step 3: Right Click on Sheet 2 and Click Rename → Type 'Copy of Runs scored'

Step 4: Right Click on Sheet 1 and Click Tab Color → Choose Blue color

Step 5: Click Sheet 3 and observe the changes in the sheet tab.

Creating Header & Footer

4. a) Open the CL6one.xlsx, copy and paste the contents of the sheet 10 times (excluding the heading) in the same excel worksheet.

b) Print the heading 'Class 6 Mark sheet' at the top and the page numbers at the bottom of each page using 'Header & Footer' option.

Step 1: Click INSERT tab

Step 2: Click Header & Footer

Step 3: Type 'Class 6 Mark sheet' in the Header section.

Step 4: Click in the Footer Section, Click Page Number tool from the Header and Footer Elements group.

Roll No	Name	Marks Scored	Grade
1	Vijay Kumar	78	B
2	M.S. Dhoni	85	A
3	Shreshth Kishore	72	B
4	Suresh Kumar	90	A
1	Vijay Kumar	78	B
2	M.S. Dhoni	85	A
3	Shreshth Kishore	72	B
4	Suresh Kumar	90	A
1	Vijay Kumar	78	B
2	M.S. Dhoni	85	A
3	Shreshth Kishore	72	B
4	Suresh Kumar	90	A
1	Vijay Kumar	78	B
2	M.S. Dhoni	85	A
3	Shreshth Kishore	72	B
4	Suresh Kumar	90	A
1	Vijay Kumar	78	B
2	M.S. Dhoni	85	A
3	Shreshth Kishore	72	B
4	Suresh Kumar	90	A
1	Vijay Kumar	78	B
2	M.S. Dhoni	85	A
3	Shreshth Kishore	72	B
4	Suresh Kumar	90	A
1	Vijay Kumar	78	B
2	M.S. Dhoni	85	A
3	Shreshth Kishore	72	B
4	Suresh Kumar	90	A
1	Vijay Kumar	78	B
2	M.S. Dhoni	85	A
3	Shreshth Kishore	72	B
4	Suresh Kumar	90	A
1	Vijay Kumar	78	B
2	M.S. Dhoni	85	A
3	Shreshth Kishore	72	B
4	Suresh Kumar	90	A
1	Vijay Kumar	78	B
2	M.S. Dhoni	85	A
3	Shreshth Kishore	72	B
4	Suresh Kumar	90	A

Freezing Panes

5. Enter the following data in MS Excel and save as CL6three.xlsx

Roll No	Name	Computer Mark	Computer grade
1	Raghav	6	B
2	Neha	7	B
3	Pranav	8	A
4	Sundar	9	A

- ✓ Copy and Paste the contents of the sheet 10 times in the same excel worksheet.
- ✓ Print the heading 'Class 6 Computer Science Marks & Grade' at the top and the page numbers at the bottom of each page using the 'Header & Footer' option.
- i) Regenerate the serial number using autofill.
- ii) Copy and paste the COMPUTER marks and COMPUTER grade thrice and change the copied columns as ART, MI, WE mark and grade respectively.
- iii) Add a new column 'TOTAL' and find the total of COMPUTER, ART, MI, WE
- iv) Using Freeze panes option try the following :
 - a. Display the ROLL NO, NAME and TOTAL of the worksheet.
 - b. Freeze ROLL NO. & NAME and view the MARKS, GRADE AND TOTAL.
 - c. Unfreeze panes
 - d. Freeze the heading (rollno name computer mark computer grade art mark art grade,...) and view the students details row wise.
 - e. Unfreeze panes

Steps for iv a:

Step 1: To Freeze ROLL NO., NAME and TOTAL in row 1, click on the row header 2

Step 2: Click VIEW tab

Step 3: Click Freeze Panes → Freeze Panes tool from the windows group

Steps for iv b:

Step 1: Click in cell B2

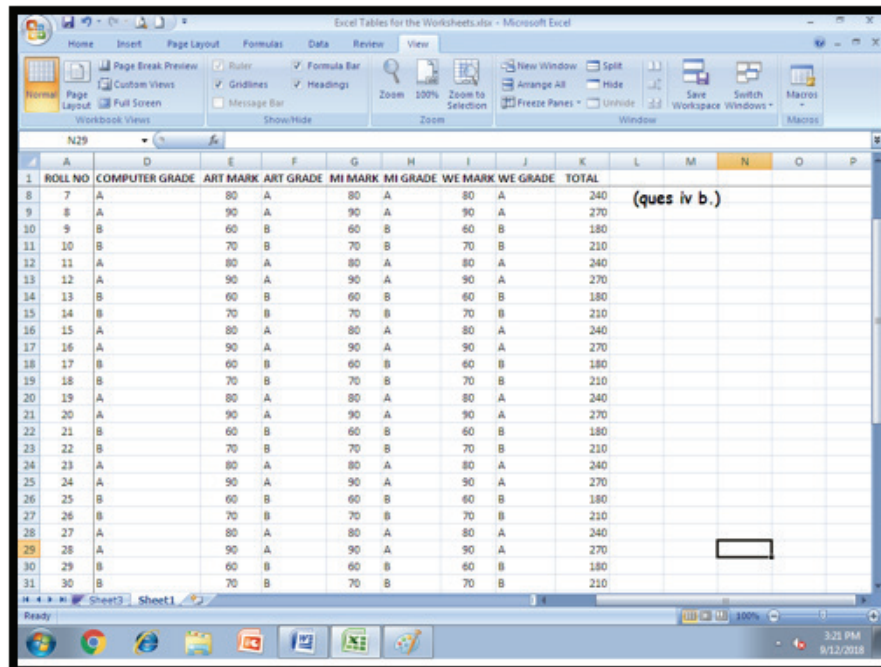
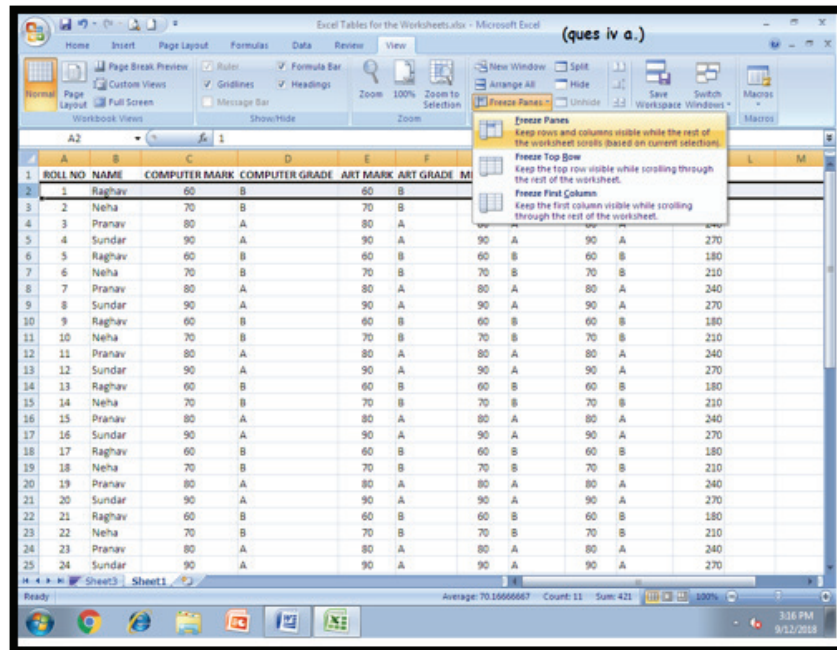
Step 2: Click VIEW tab

Step 3: Click Freeze Panes → Freeze Panes tool from the windows group

To Unfreeze Panes:

Step 1: Click VIEW tab

Step 2: Click Freeze Panes → UnFreeze Panes tool from the windows group



❧ BRAIN DEVELOPER ❧

1. To hold row and column titles in place so that they do not scroll when you scroll a worksheet click the
 - a. Unfreeze panes command on the View menu
 - b. Freeze panes command on the View menu
 - c. Hold titles command on the edit menu
 - d. Split command on the window menu

2. The Conditional Formatting function in Excel allows you to:
 - a. Automatically apply formatting based on specific rules or conditions being met.
 - b. Automatically apply a particular Font size to selected cell ranges based on specific rules or conditions being met.
 - c. Automatically change the font of selected cell ranges based on specific rules or conditions being met.
 - d. All the above

3. Which of the following are examples of using the Conditional formatting command?
 - a. Turn text red if the number is above 100
 - b. Change the fill colour of a cell to yellow if the number is below 500
 - c. Insert a red arrow before the number if it represents lower values
 - d. All the above H

4. Ramya placed all of her grades from her science class into a worksheet. She wants to highlight all of the failing grades with red. Which of the following is quick way for her to do this?

a. Conditional Formatting	b. Page Layout
c. Quick Format	d. Cell Alignment

5. Which feature enables you to preview headers and footers, page breaks, and other features that will print?

a. Print preview	b. Page Layout
c. Web Layout	d. Window View

6. Which of the following statements describes how to change the colour of a worksheet tab?
 - a. On the Page Layout tab, in the Themes group, select Colors.
 - b. Right-click the tab and select Tab Color.
 - c. Use the Fill Color tool on the Home tab.
 - d. You cannot change the color of a worksheet tab.

7. Which cell would you click to freeze Rows 1-5 and Column A?

a. A5	b. B5
c. A6	d. B6

8. In order for you to freeze the first column of a worksheet into a frozen pane:
- The entire contents of the column must be visible.
 - The first row of the column must be non-blank.
 - Duplicate worksheets must also be able to have their first columns frozen.
 - You can click Freeze First Column in the Freeze Panes menu.
9. Which view do you need to work in to add a header?
- Normal View
 - Page Layout view
 - Header/Footer view
 - Page Setup View
10. A(n) _____ is a line of text that appears at the top of each page of a printed worksheet.
- Boundary
 - Header
 - Row height
 - Theme

Teacher's Signature

MODIFYING THE PAGE SETTINGS - SETTING AND CLEARING THE PRINT AREA & PRINT OPTIONS, SIMPLE MATH & TEXT FUNCTIONS

SET PAGE SETUP ATTRIBUTES FOR MORE THAN ONE SHEET IN EXCEL

Before printing a spreadsheet or pivot table, we are used to previewing and adjusting it for better readability. It's also important to decide exactly what information you want to print. For example, if you have multiple worksheets in your workbook, you will need to decide if you want to print the **entire workbook** or only **active worksheets**. There may also be times when you want to print only a **selection** of content from your workbook. In Microsoft Excel, Page Setup attributes such as **margins, Orientation, Print Titles** are set for each worksheet, individually.

To apply page setup attributes to a group of worksheets in a workbook, follow these steps:

- Press CTRL and then click each worksheet tab in the workbook that you want to affect.
- Click the Page Layout tab in the Ribbon.
- Go to the Page Setup group, and then you will find that some common used setups, such as margins, backgrounds and size are listed in this group. For further setup, you should click the little square with an arrow in the right bottom of the group. Then a "Page Setup" box appears, and you can choose the settings based on your need.
- Click OK to finish it.

All of the worksheets that you selected have the same page setup attributes.

To Print the Worksheet:

Worksheets are considered **active** when **selected**.

- Select the **worksheet** you want to print. To print **multiple worksheets**, Click the first worksheet, hold the **Ctrl** key on your keyboard, then click any other worksheets you want to select.
- Click the Office button>Print>Print (Or press Ctrl + P keys) – The Print dialog box appears.
- Specify the print attributes like – Printer name, number of copies, whether printing selected worksheets (active sheets or selected range of cells in a worksheet or the entire worksheet)
- And click ok

Print row or column titles on every page:

1. **If you want to print a sheet that will have many printed pages, you can set options to print the sheet's headings or titles on every page.**
 - Click the sheet.
 - On the **Page Layout** tab, in the **Page Setup** group, click **Page Setup**.
 - Under **Print Titles**, click in **Rows to repeat at top** or **Columns to repeat at left** and select the column or row that contains the titles you want to repeat.
 - Click **OK**.
 - On the **File** menu, click **Print**.

You can see how your sheet will print in the preview pane.

SET OR CLEAR A PRINT AREA ON A WORKSHEET

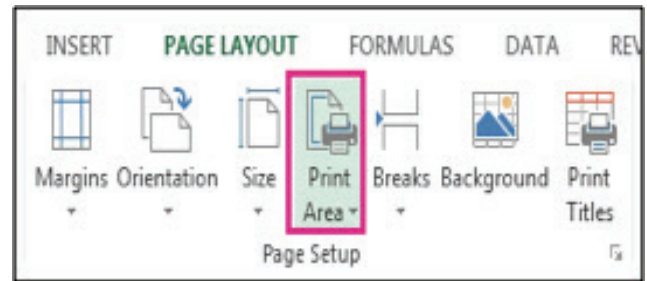
If you print a specific selection on a worksheet frequently, you can define a print area that includes just that selection. A print area is one or more ranges of cells that you designate to print when you don't want to print the entire worksheet. When you print a worksheet after defining a print area, only the print area is printed. You can add cells to expand the print area as needed, and you can clear the print area to print the entire worksheet.

A worksheet can have multiple print areas. Each print area will print as a separate page.

SET ONE OR MORE PRINT AREAS

a) On the worksheet, select the cells that you want to define as the print area.

Tip: To set multiple print areas, hold down the Ctrl key and click the areas you want to print. Each print area prints on its own page.



On the Page Layout tab, in the Page Setup group, click **Print Area**, and then click **Set Print Area**.

Note: The print area that you set is saved when you save the workbook.

b) To see all the print areas to make sure they're the ones you want, click **View > Page Break Preview** in the **Workbook Views** group. When you save your workbook, the print area is saved too.

CLEAR A PRINT AREA

Note: If your worksheet contains multiple print areas, clearing a print area removes all the print areas on your worksheet.

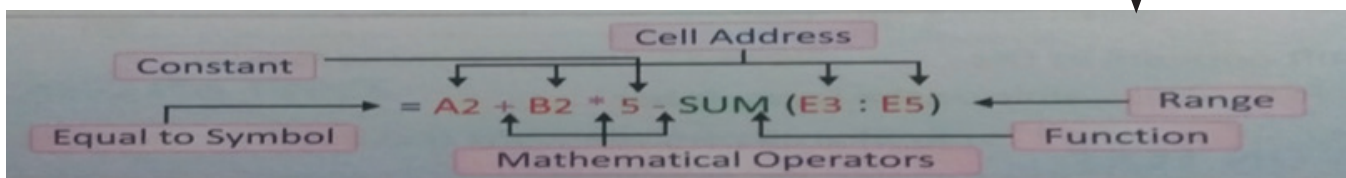
- Click anywhere on the worksheet for which you want to clear the print area.
- On the **Page Layout** tab, in the **Page Setup** group, click **Clear Print Area**.

FORMULAE

Formulae are used to perform calculations involving Addition, Subtraction, Multiplication, and Division. It is an expression that can include cell addresses, numbers, arithmetic operators and parenthesis. Using it you can perform simple as well as complex calculations.

A formula may contain a few or all of the following elements - Cell References, Operators, Constants, Functions.

- References** : A cell or a range of cells that you want to include in the calculation.
- Operators** : Symbols (+,-,*,^,%,,\$,#, etc.) that specify the operation to be performed.
- Constants** : Numbers or text values that do not change.
- Functions** : Pre-defined formulae in Excel



THE 5 BASIC RULES TO USE EXCEL FORMULAS:

- All Excel formulas start with an equal (=) sign. This tells Excel that it is a formula.
- The answer to the formula displays in the cell into which the formula is entered.
- Cells are referenced in a formula by their column-row identifier, ie. A1, B2.
- The symbols for addition, subtraction, multiplication, and division are: + - * /
- You do not have to enter capital letters in your formula; Excel will automatically capitalize them.

We can combine multiple operations in one formula. Make sure you use parentheses where needed or you may not get the correct results (see Order of Operations below).

Here are some examples:

- $= (C1 + C3) / C4$ This Excel formula adds the value in C1 to the value in C3, and then divides the result by the value in C4
- $= 4 * (A2 + A5) + 3$ This Excel formula adds the contents of A2 and A5, multiplies this sum by 4, and then adds 3.

MATHEMATICAL ORDER OF OPERATIONS

Remember the Order of Operations by remembering the phrase PEDMAS. The letters stand for: Parentheses, Exponents, Multiplication, Division, Addition, and Subtraction. And all operations are carried out from **left to right**.

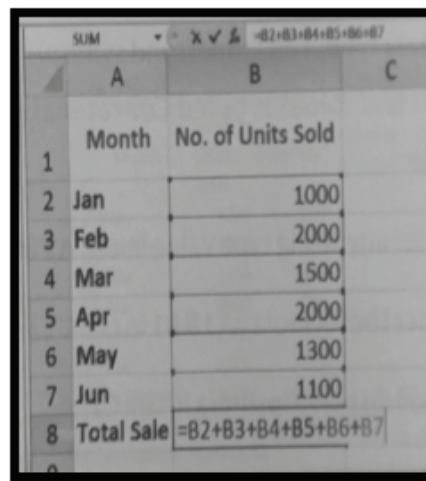
Here is how the order is applied:

- First, any math inside of parentheses is calculated.
- On the second pass, all exponents are resolved.
- Then any multiplication OR division is performed.
- Lastly, any addition OR subtraction is performed.

CREATING A BASIC FORMULA

A basic formula involves only one type of operator in it. Let us use it to calculate the sum of the numbers in B2, B3, ..., B7 and display the result in B8.

- Enter the data as shown in the figure →
- Click in the cell B8 (where you want to display the result) and type = sign
- Click on the cell B2. A dashed border called marquee will appear around it. Its address will appear in the cell B8 and in the Formula bar. This method of clicking on the cell to add its reference to a formula is called **Pointing**. The Status bar will display the status of **Point**.
- Now type the + symbol.
- Repeat the above steps till B7 (or type $=B2+B3+B4+B5+B6+B7$ in B8. You will notice the different coloured borders appearing around these cells.
- Press the Enter Key. Cell B will display the total of all the values from B2 to B7.

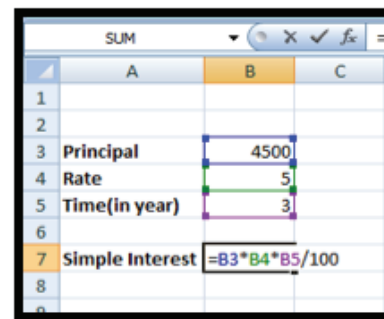


	A	B	C
1	Month	No. of Units Sold	
2	Jan	1000	
3	Feb	2000	
4	Mar	1500	
5	Apr	2000	
6	May	1300	
7	Jun	1100	
8	Total Sale	$=B2+B3+B4+B5+B6+B7$	

COMPOUND FORMULA

A formula is called a compound formula when more than one operator is required to perform calculation. Let us use it to calculate the Simple Interest by using the formula $=P*R*T/100$

Enter the data as shown in the figure →



	A	B	C
1			
2			
3	Principal	4500	
4	Rate	5	
5	Time(in year)	3	
6			
7	Simple Interest	=B3*B4*B5/100	
8			

- Click cell B7 and type =
- Click on cell B3. The cell address of B3 appears in the cell B7.
- Type the symbol * and click on the cell B4
- Again type the symbol * in B6 and click on the cell B5. Now type the symbol / followed by 100 in the cell B7 and press the Enter key. The cell B7 displays the calculated simple Interest.

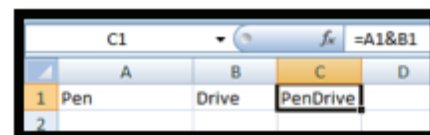
The result appears in the cell and the actual formula is visible in the Formula Bar.

Note: MS Excel follows the BEDMAS rule to evaluate the mathematical expression. Excel uses this method automatically when a formula contains more than one operator.

FORMULA ON TEXT

We can also perform addition on character and **string** data type. Except for addition, other operations like subtraction, multiplication, division, etc., are not allowed on the string data type. The ampersand symbol(&) is used to perform addition. Addition of two or more text value is called **Concatenation**. Let us understand this with the help of an example.

- Enter string type values in cells A1 and B, say Pen in A1 and Drive in B1
- Enter the formula =A1& B1 in the cell C1and press the enter key.
- It will display PenDrive in cell C1.



	A	B	C	D
1	Pen	Drive	PenDrive	
2				

FUNCTIONS

Functions are the predefined formulae in Excel to perform both simple and complex calculations. Functions save time and eliminate the chance to write wrong formulae. They accept Arguments and return Values.

Arguments are the inputs values to functions upon which calculations are performed to find out the final result. These values can be numbers, text, etc., and are enclosed within parenthesis.

Functions begin with the equal to (=) sign followed by the function name and then the list of arguments separated by comma within the parenthesis.

For example, =Function name(argument1, argument2...)

Rules to Enter A Function:

- All Excel functions must begin with = sign.
- Function name must be a valid Excel name.
- Function name must be followed by an opening and closing parenthesis.
- Arguments are enclosed in the parenthesis. For example, =SUM(A1:A5)
Now press Enter key to see the result or press Ctrl+Enter key to stay in the formula cell.
- A Function returns a value.

AutoSum : The AutoSum option, besides being the most common and the fastest way to find out the total of the given numbers in a range, also provides options to find Average, Count, Max, Min, etc.

The Sum() function returns the total of the range values.

The Max() function is used to find the largest value in the given range.

Similarly Min() finds the lowest value in the range and Count() will count the number of elements like numbers, formulae, and date in a given range.

TEXT FUNCTIONS

CHANGE THE CASE OF TEXT

Microsoft Excel doesn't have a Change Case **button for changing capitalization. However, you can use the UPPER, LOWER, or PROPER functions to automatically change the case of existing text to uppercase, lowercase, or proper case. Functions are just built-in formulae that are designed to accomplish specific tasks—in this case, converting text case.**

How to Change Case

In the example below, the PROPER function is used to convert the uppercase names in column A to proper case, which capitalizes only the first letter in each name.

- First, insert a temporary column next to the column that contains the text you want to convert. In this case, we've added a new column (B) to the right of the **Customer Name** column.
- This formula converts the name in cell A2 from uppercase to proper case. To convert the text to lowercase, type **=LOWER(A2)** instead. Use **=UPPER(A2)** in cases where you need to convert text to uppercase, replacing A2 with the appropriate cell reference.
- Now, fill down the formula in the new column. The quickest way to do this is by selecting cell B2, and then double-clicking the small black square that appears in the lower-right corner of the cell.

TIP: If your data is in an Excel table, a calculated column is automatically created with values filled down for you when you enter the formula.

- a. At this point, the values in the new column (B) should be selected. Press **CTRL+C** to copy them to the Clipboard.

- b. Right-click cell A2, click **Paste**, and then click **Values**.

This step enables you to paste just the names and not the underlying formulas, which you don't need to keep.

	A	B
1	Customer Name	
2	KELLI LXU	Kelli LXu
3	DONALD CHANDRA	

You can then delete column (B), since it is no longer needed.

ACTIVITIES

Modifying the Page Settings

1. (* Note: USE ONLY PRINT PREVIEW, not for PRINTING the hardcopy)

1) Open the CL6three.xlsx worksheet

- i. Set the page layout as given below

- ❖ margin-normal, orientation- portrait, size-A4 and print preview the layout
- ❖ margin-narrow, orientation- landscape, size- legal and print preview the layout

- ii. Set the following margins through Print-> Print Preview ->PageSetup->Margins:
Top & Bottom to 1.2 and Left & Right to 0.8
- iii. Adjust the margins: top & bottom to 0.8 and left & right to 0.5 using the drag and drop method.

SETTING & CLEARING THE PRINT AREA & PRINT OPTIONS

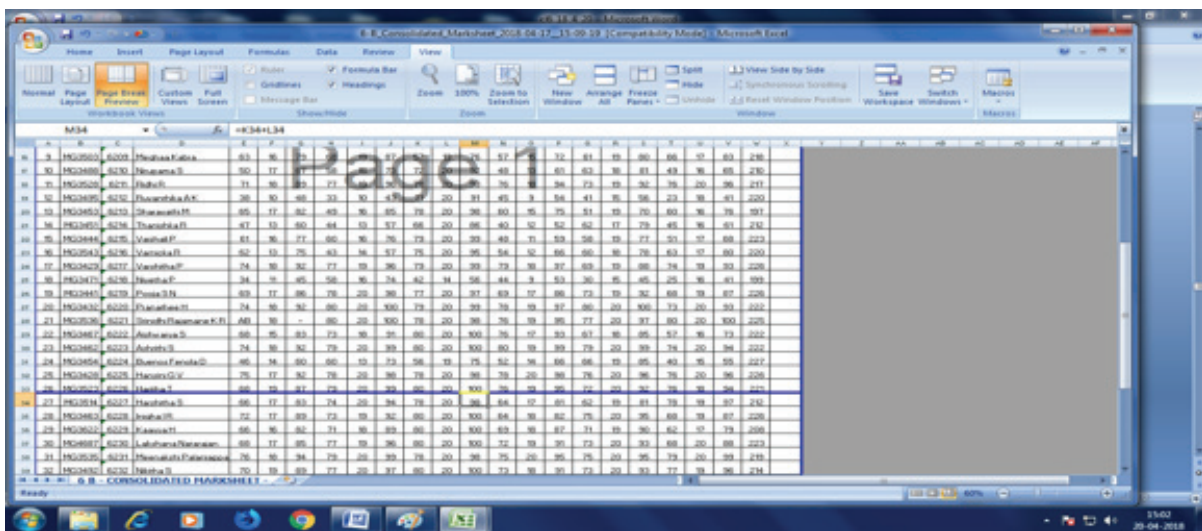
2. (* Note: USE ONLY PRINT PREVIEW, not for PRINTING the hardcopy)

Open the CL6three.xlsx.

- i. Using the Page Layout→Print Titles:

Select the content that needs to be printed as Print area, then, select the row headings to be repeated at the top from the selected print area followed by, the column headings to be repeated at the left.

- ii. Use Page break view under view menu and alter the selection by increasing or decreasing the number of lines by dragging the page break indicator.



3: Create the following table and save as CL6four.xlsx

Sno	Product	Unit Price	No. of items sold	Total Cost	GST(in Rs.)
1	Note book	715.5	62		
2	Cd	31.75	55		
3	Pendrive	450.25	6		
4	Markers	623.72	12		
5	Penpencil	108.13	40		
6	Sketch pens	258.94	30		
	Highest Sale		---		
	Least Sale		---		

Type the above data in an Excel Worksheet in sheet 1 from A1 to F9:

- i. Find the price of each product using quotient function. (In cell E2 type =quotient(c2,d2) and press Enter Key)

- ii. Assuming 5% GST is levied on each product ,find the GST(in rupees).(In cell F2 type '=C2*5/100')
- iii. Find the highest and least sold item using MAX() and MIN(). (In cell D8 type '=MAX(D2:D7)' and in Cell D9 type '=MIN(D2:D7)')
- iv. Enter these values in sheet 2 and find the remainder for these values, using mod function,
 - a) 64 7 The syntax of the mod function is given below:
 - b) 46 5 =mod (numerator, divisor)
 - c) 11 2 Eg: In cell C1 type '=mod (A1,B1)'
 - d) 17 3
- v. Find the output of the following values using the Mathematical functions
 - a. (Roundup, RoundDown, Round, Ceiling, Floor)

	Roundup	Rounddown	Round	Ceiling	Floor
89.932					
89.1538					
89.158					
31.563					
59.04					
-78.99					
1.009					

Step 1:Type the above data in an Excel Worksheet from A1 to F8:

Step 2: In cell B2 type '=roundup(B1,2) and copy this formula to cells B3 to B8.

Step 3: In cell C2 type '=rounddown(C1,2) and copy this formula to cells C3 to C8.

Step 4: In cell D2 type '=round(D1,2) and copy this formula to cells D3 to D8.

Step 5: In cell E2 type '=ceiling(E1,2) and copy this formula to cells E3 to E8.

Step 6: In cell F2 type '=floor(F1,2) and copy this formula to cells F3 to F8.

4: Open the CL6one.xlsx worksheet,

i) Insert new columns – Length, Uppercase, Lowercase, Proper after the Name column and find the length of the names and change them to upper, lower and proper cases.

ii) Use appropriate text functions left/mid/right/concatenate to get the following output

INPUT TEXT	EXPECTED OUTPUT
i) PRINT	PR
ii) SIXTH	TH
iii) LASER	SE
iv) MICROSOFT FRONTPAGE	MICROSOFT FRONTPAGE

Step 1: Type the above text from cell A1 to A3

Type MICROSOFT in cell A4 and FRONTPAGE in cell B4

Step 2: Type =left(A1,2) in cell B1. (...to get 'PR')

Step 3: Type =right(A1,2) in cell B2. (...to get 'TH')

Step 4: Type =mid(C1,3,2) in cell B3. (...to get 'SE')

Step 5: Type =concatenate(A4,B4) in cell C4. (...to get
'MICROSOFT FRONTPAGE')

Step 6: Type =concatenate(A4," B4) in cell C5. (...to get 'MICROSOFT FRONTPAGE')

❧ BRAIN DEVELOPER ❧

.....

1. Which of the following options is not located in the Page Setup dialog box?
 - a. Page Break Preview
 - b. Page Orientation
 - c. Margins
 - d. Headers and Footers

2. Which of the following formulas is not entered correctly?
 - a. =10+50
 - b. =B7*B1
 - c. =B7+14
 - d. 10+50

3. Clicking on the cell to add its reference to a formula is called _____.

4. What option allows you to force rows or columns to be printed on each page of a multi-page worksheet?
 - a. Print rows/columns
 - b. Print area
 - c. Print titles
 - d. Print headings

5. The faint lines between rows and columns in a worksheet are called _____ .
 - a. Border line
 - b. Boundary
 - c. Gridlines
 - d. Move line

6. Which of the following statements describes how to increase or decrease a column's width?
 - a. Right-click anywhere in the column and select Format Cells
 - b. Use the Page Setup dialog box
 - c. Drag the boundary next to the column heading
 - d. Select a Width setting in the Scale to Fit group on the Page Layout tab

7. Which button do you click to add up a series of numbers?
 - a. The AutoSum button
 - b. The Formula button
 - c. The quicktotal button
 - d. The total button

CREATING & FORMATTING CHARTS, SORTING DATA, FILTERING DATA

Microsoft Excel provides several ways to analyse the data in a worksheet. Charts, Sorting, Filtering are a few of them.

A chart is a graphical representation of data in a worksheet. It helps to provide a better understanding of large quantities of data. Charts make it easier to draw comparisons and see growth and relationship among the values and trends in data. They provide an accurate analysis of information.

COMPONENTS OF A CHART AS SHOWN IN THE FIGURE

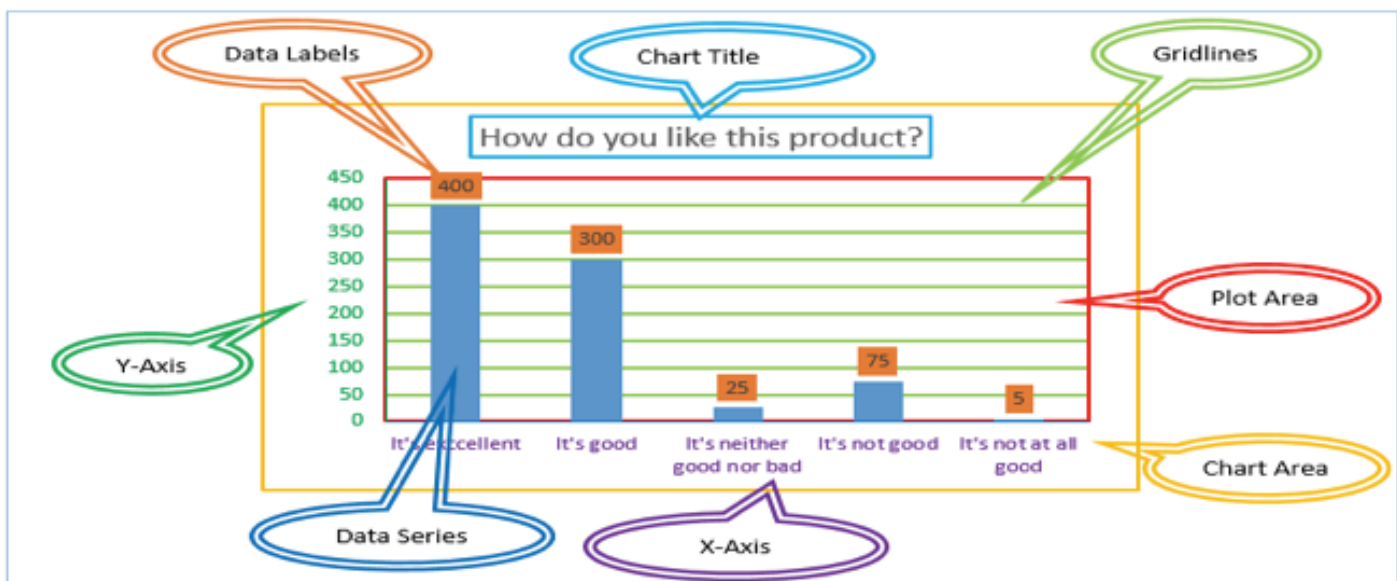


Chart Area: Chart area includes all the area and objects in the Chart.

Category Axis: Category axis or X-axis is the horizontal axis of a chart.

Value axis: Value axis of Y axis is the Vertical axis used to plot the values. It is located on the left side.

Data Series : Data series are the bars, slices, or other elements that show the data values. If there are multiple data series in a chart, each will have a different colour or style.

Category Name: Category names are the labels that are displayed on the X and Y axes.

Plot Area : Plot area is a rectangular area within the Chart area that contains the actual chart itself and includes plotted data, data series, category and value axis.

Legend : It depicts the colour, patterns, or symbols assigned to the data series. It help to differentiate the data.

Chart title : It describes the contents of the Chart.

Grid Lines : These can be horizontal or Vertical lines or both depending on the selected chart type. They extend across the plot area of the chart. Gridlines make it easier to read and understand the values.

TYPES OF CHARTS

Different scenarios require different types of charts. The type of chart that you choose depends on the type of data that you want to visualize. Excel offers a wide range of charts to interpret data. These charts share some common features, which assist the users in comprehending the data logically.

The following table shows some of the most commonly used charts and when you should consider using them.

SNO	CHART TYPE	WHEN SHOULD I USE IT?
1	Pie Chart	When you want to quantify items and show them as percentages.
2	Bar Chart	When you want to compare values across a few categories. The values run horizontally
3	Column chart	When you want to compare values across a few categories. The values run vertically
4	Line chart	When you want to visualize trends over a period of time i.e. months, days, years, etc.

The importance of charts

- Allows you to visualize data graphically
- It's easier to analyse trends and patterns in the charts
- Easy to interpret compared to data in cells

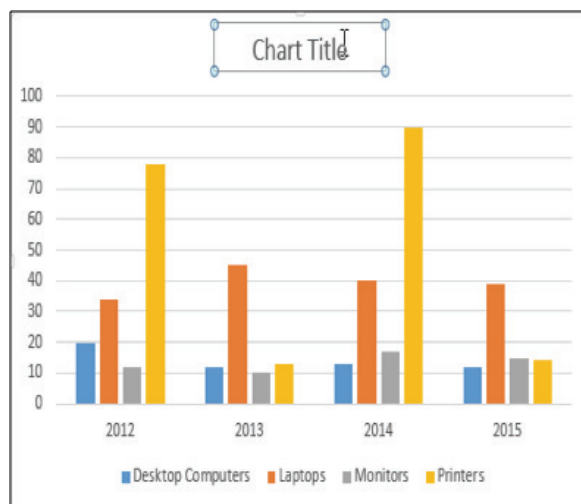
Step by Step procedure to plot a simple column chart that will display the sold quantities against the sales year.

We will use the following data...

Item	2012	2013	2014	2015
Desktop Computers	20	12	13	12
Laptops	34	45	40	39
Monitors	12	10	17	15
Printers	78	13	90	14

- Open Excel
- Enter the data from the sample data table above
- Your workbook should now look as follows
- To get the desired chart you have to follow the following steps
- Select the range of cells from the worksheet that contains the source data for the chart.
- Click on INSERT tab from the ribbon
- Click on the Charts group>Column chart drop down button>Select the chart type you want.

The chart appears in the worksheet. Three new tabs – Design, Layout and Format appear in the Chart tools contextual menu.



- Select the desired layout from the Chart Layouts group under the Design tab.
- Select the desired style from Chart Styles group and observe the change.

SORTING DATA

Sorting means arranging data either in an ascending or descending order in a worksheet. Data can be sorted in rows on the basis of text, numbers, dates or combination of text and numbers. Once data is organised, it becomes easy to work with.

To sort the data follow these steps :

- Select the data that you want to sort from the worksheet.
- Click the Sort button in the Sort & Filter group under the Data tab. The entire data series will be selected and the Sort Dialog box will appear.
- Select the field on the basis of what you want to sort from the Sort by drop-down list.
- Select the values option from the Sort On drop-down list. Select the sorting order (A to Z or Z to A) from the Order drop-down list. By default A to Z option is selected.
- You can check the **My data has headers** checkbox to exclude the first row containing the column headings of your data from sorting and Click OK.

You can also sort by more than one column

- Click on the Add Level button in the Sort dialog box. A new level gets added below the first level – Mention the column name in the **Then by** drop-down list and order of sorting as Largest to smallest / Smallest to largest and click OK.

FILTERING DATA

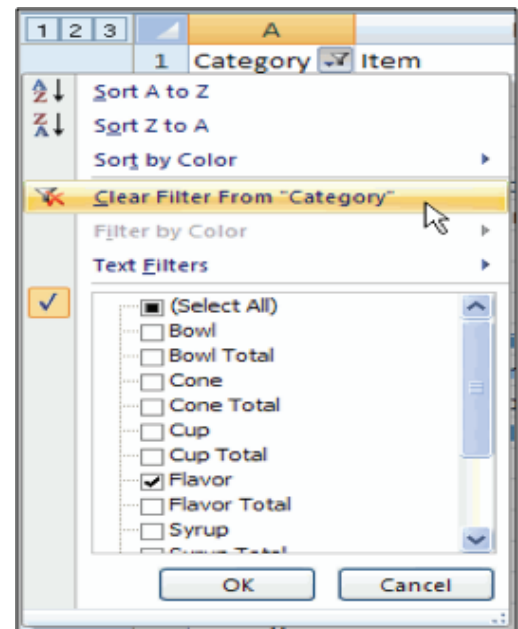
The Filter feature allows you to see only those records that you want to display while it hides the rest of the data temporarily from the view. You can filter a list to display records(rows) that meet specific criteria by using the AutoFilter command.

- Select any cell within the database range, say D1. Click on the Filter button in the Sort & Filter group under the Data tab.
- Filtering arrows will be added to each field name. These arrows are used to specify criteria to filter data.
- Click on the arrow next to a field name. Select the checkboxes of the values –whose records you wish to see – from the drop-down list. Click OK.
- The list will get filtered and display only those records that meet the desired criteria.

To clear one filter:

- Select one of the drop-down arrows next to a filtered field name.
- Choose **Clear Filter From...**

To remove all filters, click the Filter command.



ACTIVITIES

1. IN MS-EXCEL CREATE CHARTS FOR THE FOLLOWING

(Note: Save the excel worksheets and make a note of the excel file, you will need the excel file for the next exercise too)

- i) Create a column chart for the data in CL60ne.xlsx

Step 1: Select the data with the headings

Step 2: Click Insert tab → Chart → Bar Chart to insert a Chart object for the Given Data.

- ii) a) Create a pie chart for the following data

Rice Production by States (Million tonnes):2014-15

Tamil Nadu	5.73
Telangana	4.44
Andhra Pradesh	7.23
Kerala	0.56

Step 1: Type the above data and Select it with the headings

Step 2: Click Insert tab → Chart → Pie Chart to insert a Chart object for the given Data.

- b) Create a pie chart for the CL6four.xlsx on the columns Product and No.Of items sold.

Step 1: Select the columns with the headings.

Step 2: Click Insert tab → Chart → Pie Chart to insert a Chart object for the Given Data.

- a) Create line graph for the following:

Sales made by two Salesmen

	Jan	Feb	Mar	Apr	May
Salesman1	234	211	198	189	178
Salesman2	200	196	222	202	187

Step 1: Select the data with the headings

Step 2: Click Insert tab → Chart → Line Graph

....to insert a Chart object for the Given Data.

☞ Create a bar chart for CL6two.xlsx on Name and scores

FORMATTING CHARTS

2. FOR THE CHARTS CREATED ABOVE ADD THE FOLLOWING

- i) Column Chart using CL6one.xlsx

- a) Add the chart title as “COMPARISON OF MARKS”

Step 1: Click Chart Tools tab

Step 2: Select a Layout 1 under Chart Layouts group

Step 3: Click in the Chart Title textbox and type ‘COMPARISON OF MARKS’

b) Add the x-axis title as “marks scored” and y-axis title as student”

Step 1: Click Chart Tools tab

Step 2: Select a Layout 9 under Chart Layouts group

Step 3: Click in the x-axis and y-axis textboxes and change the titles.

c) Add the data labels in the chart

Step 1: Click Chart Tools tab

Step 2: Select a Layout 10 under Chart Layouts group

Step 3: Click in the Data Labels on the data bar to make the changes.

TRY IT YOURSELF

i) Pie Chart

a) add the title “Rice Production by States (Million tonnes):2017-18” and the data labels in the chart.

b) place the legend on top

ii) Line Graph

a) chart title “comparison of sales made by two sales persons”

b) x-axis title “ sales made”

c) y-axis title “ salesmen”

d) border colour as green

e) line cap –type – round, dash type – your choice

iii) Bar Chart

a) Chart title “comparison of runs ”

b) x-axis title “ runs”

c) y-axis title “ batsmen”

d) The Legend Series should reflect the names of the batsmen.

3. SORTING DATA

Enter the following data in MS-Excel and save as CL6five.xlsx

S No	Section	Class	Name	Total
1	C	6	SUNILA	345
2	C	6	SHARATH	412
3	A	6	KARNIKA	456
4	B	6	BHARGAVI	255
5	B	6	PUNEETH	367
6	A	6	BIPASHA	489
7	C	6	VAIBHAV	212
8	A	6	TEJASHREE	223
9	B	6	ANUSHREE	302
10	C	6	RITHIKA	399

Note: To Sort the Data Select the Entire Table First.

- a) Sort the above table in the ascending order of name field.

Step 1: Select the entire table

Step 2: Click The Custom Sort tool from Sort And Filter in the Home tab.

Step 3: Select the Name column for Sort By – One level sorting – ascending order

Step 4: Click Ok

- a) Sort the above table in the descending order of total field.

Step 1: Select the entire table

Step 2: Click The Custom Sort tool from Sort and Filter in the Home tab.

Step 3: Select the Total column for Sort By – One level sorting– descending order

Step 4: Click Ok

TRY IT YOURSELF

- a) Sort the above table in the ascending order of section and under each section, in the alphabetical order of name .
b) Sort the above table ascending order of section and under each section in descending order of total field.

FILTERING DATA-WITH AUTO FILTER

- a) a) Open the CL6one.xlsx , using the auto filter command perform the following

- i) Filter the records for the condition sub1 greater than 80.

Step 1: Select the entire table

Step 2: Click The Filter tool from Sort and Filter in the Home tab.



Step 3: Select the Sub1 column header arrow 

Step 4: Uncheck (Select All) and select the boxes you want to show.

Step 5: Click Ok

The column header arrow  changes to a  Filter icon. Select this icon to change or clear the filter.

Note: To remove the column header arrow , Click The Filter tool from Sort and Filter in the Home tab.

The column header arrow  changes to a  Filter icon. Select this icon to change or clear the filter.

- b) Use the CL6five.xlsx and perform the following.

- i) filter the records of the students belonging to C section
ii) filter the records for those whose total is above 350 and below 400 .
iii) clear filter.

- c) Perform the following for the CL6five.xls - Using the Conditional formatting

1. apply 'green' colour for the range of total column:401- 500
2. apply 'yellow' colour for the range of total column:301-400
3. apply 'red' colour for the total column :<300

- d) Filter the total column by the colour.

- i) Using the Filter option display the student details section wise.

1. In a Chart, the term data series refers to
 - a. A chart legend
 - b. A collection of chart data markers
 - c. A set of values you plot in a chart
 - d. A data label
2. _____ is a pictorial representation of tabular data in a worksheet.
3. Getting data from a cell located in a different sheet is called
 - a. Accessing
 - b. Referencing
 - c. Updating
 - d. Functioning
4. Which of the options below represent the method for inserting a title or heading for a chart?
 - a. Under Chart Tools, click on the Design tab and select *Insert Chart Title* in the Chart Layouts group.
 - b. Under Chart Tools, click on the Layout tab and select *Insert Chart Heading from the Background group*.
 - c. Under Chart Tools, click on the Layout tab, select *Chart Title* and choose the relevant option for where to insert the title.
5. Which option of Chart Wizard contains the option of Series Name, Category and Value in Data?
 - a. Legend
 - b. Chart area
 - c. Data label
 - d. Data Titles
6. Which of these charts does not exist in MS Excel?
 - a. Scatter
 - b. Line
 - c. Doughnut
 - d. Graph
7. Part of a pie chart that represents one value from the series.
 - a. Axis
 - b. Data
 - c. Slice
 - d. Chart
8. **Data graphed as slices of a circular area is a**
 - a. bar chart
 - b. scatter plot
 - c. pie chart
 - d. column chart
9. The part of the chart area that displays data.
 - a. Legend
 - b. Axis
 - c. Series
 - d. Plot area
10. Corresponds to the category labels in a pie chart and series names in other charts.
 - a. Plot area
 - b. Legend
 - c. Gridlines
 - d. Slice
11. This describes what is charted. It can be placed above or below the chart.
 - a. Chart title
 - b. Chart area
 - c. Bar chart
 - d. Pie chart
12. Sorting of data in excel means-----
 - a. arranging the data in ascending or descending order
 - b. arranging data in mixed order
 - c. arranging data in mixed combination of letters
 - d. arranging data in mixed combination of numbers

13. The command we use to sort data in an excel sheet located in
a. Home tab b. Data tab c. Insert tab d. Both a and b
14. What are the names of the fields needed to fill in the sort dialogue box
a. Sort, filter, advanced b. Column, Sort On, Order
c. Sort and Filter d. Conditional formatting
15. To arrange data in ascending order, which order need to select in the order field in the sort dialogue box
a. A to Z b. Z to A c. Custom level d. Ascending or descending
16. To arrange data in descending order, which order need to select in the order field in the sort dialogue box
a. A to Z b. Z to A c. Custom level d. Ascending or Descending
17. To visually compare number across different categories, use a
a. Bar chart b. Column chart c. Bar or Column Chart d. Pie chart
18. X-axis is called _____ and Y-axis is called _____ of a Chart.

Teacher's Signature