

Note: Attempt any three questions. All question carry equal marks.

Q1. What do you mean by cell address and cell range? Explain in details

Q2. What is chart? Explain different types of chart.

Q3. What is formula in Excel? Explain mathematical function available in Excel with example.

Q4. Explain the function related to workbook in brief: creating, editing and saving.

SOLUTIONS:

Q1. What do you mean by cell address and cell range? Explain in details

A **cell** is the intersection between a row and a column on a spreadsheet that starts with **cell** A1. Below is an example of a highlighted **cell** in **Microsoft Excel**; the **cell address**, **cell** name, or **cell** pointer "D8" (column D, row 8) is the selected **cell** and the location of what is being modified.

A **range** is a group or block of **cells** in a worksheet that has been selected or highlighted. When **cells** have been selected they **are** surrounded by an outline or border as shown in the image to the left. A **range can** also be a group or block of **cell** references that **can** be, for example: entered as an argument for a function.

Range Examples

A range is a collection of two or more cells.

1. To select the range B2:C4, click on cell B2 and drag it to cell C4.

	A	B	C	D	E
1					
2					
3					
4					
5					

Q2. What is chart? Explain different types of chart.

Excel provides you different types of charts that suit your purpose. Based on the type of data, you can create a chart. You can also change the chart type later.

Excel offers the following major chart types –

- Column Chart
- Line Chart
- Pie Chart

- Doughnut Chart
- Bar Chart
- Area Chart
- XY (Scatter) Chart
- Bubble Chart
- Stock Chart
- Surface Chart
- Radar Chart
- Combo Chart

Each of these chart types have sub-types. In this chapter, you will have an overview of the different chart types and get to know the sub-types for each chart type.

Column Chart

A Column Chart typically displays the categories along the horizontal (category) axis and values along the vertical (value) axis. To create a column chart, arrange the data in columns or rows on the worksheet.

A column chart has the following sub-types –

- Clustered Column.
- Stacked Column.
- 100% Stacked Column.
- 3-D Clustered Column.
- 3-D Stacked Column.
- 3-D 100% Stacked Column.
- 3-D Column.

Line Chart

Line charts can show continuous data over time on an evenly scaled Axis. Therefore, they are ideal for showing trends in data at equal intervals, such as months, quarters or years.

In a Line chart –

- Category data is distributed evenly along the horizontal axis.
- Value data is distributed evenly along the vertical axis.

To create a Line chart, arrange the data in columns or rows on the worksheet.

A Line chart has the following sub-types –

- Line
- Stacked Line
- 100% Stacked Line
- Line with Markers
- Stacked Line with Markers
- 100% Stacked Line with Markers
- 3-D Line

Pie Chart

Pie charts show the size of items in one data series, proportional to the sum of the items. The data points in a pie chart are shown as a percentage of the whole pie. To create a Pie Chart, arrange the data in one column or row on the worksheet.

A Pie Chart has the following sub-types –

- Pie
- 3-D Pie
- Pie of Pie
- Bar of Pie

Doughnut Chart

A Doughnut chart shows the relationship of parts to a whole. It is similar to a Pie Chart with the only difference that a Doughnut Chart can contain more than one data series, whereas, a Pie Chart can contain only one data series.

A Doughnut Chart contains rings and each ring representing one data series. To create a Doughnut Chart, arrange the data in columns or rows on a worksheet.

Bar Chart

Bar Charts illustrate comparisons among individual items. In a Bar Chart, the categories are organized along the vertical axis and the values are organized along the horizontal axis. To create a Bar Chart, arrange the data in columns or rows on the Worksheet.

A Bar Chart has the following sub-types –

- Clustered Bar
- Stacked Bar
- 100% Stacked Bar
- 3-D Clustered Bar
- 3-D Stacked Bar
- 3-D 100% Stacked Bar

Area Chart

Area Charts can be used to plot the change over time and draw attention to the total value across a trend. By showing the sum of the plotted values, an area chart also shows the relationship of parts to a whole. To create an Area Chart, arrange the data in columns or rows on the worksheet.

An Area Chart has the following sub-types –

- Area
- Stacked Area
- 100% Stacked Area
- 3-D Area
- 3-D Stacked Area
- 3-D 100% Stacked Area

Q3. What is formula in Excel? Explain mathematical function available in Excel with example.

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A very important feature in Excel is the formula. It is used to calculate values based on what is in cells, perform operations on a cell content, fetch values after an operation based on your search criteria and much more.

Basic Numeric Information

<u>ABS</u>	Returns the absolute value (i.e. the modulus) of a supplied number
<u>SIGN</u>	Returns the sign (+1, -1 or 0) of a supplied number
<u>GCD</u>	Returns the Greatest Common Divisor of two or more supplied numbers
<u>LCM</u>	Returns the Least Common Multiple of two or more supplied numbers

Rounding Functions

<u>CEILING</u>	Rounds a number <u>away from zero</u> (i.e. rounds a positive number up and a negative number down), to a multiple of significance
<u>EVEN</u>	Rounds a number away from zero (i.e. rounds a positive number up and a negative number down), to the next even number
<u>FLOOR</u>	Rounds a number towards zero, (i.e. rounds a positive number down and a negative number up), to a multiple of significance
<u>INT</u>	Rounds a number down to the next integer
<u>MROUND</u>	Rounds a number up or down, to the nearest multiple of significance
<u>ODD</u>	Rounds a number away from zero (i.e. rounds a positive number up and a negative number down), to the next odd number
<u>ROUND</u>	Rounds a number up or down, to a given number of digits

Exponents & Logarithms

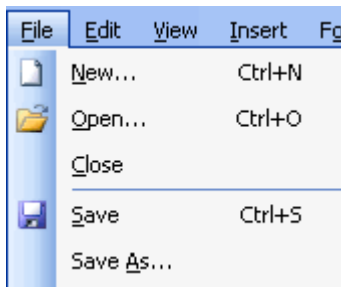
<u>EXP</u>	Returns e raised to a given power
<u>LN</u>	Returns the natural logarithm of a given number
<u>LOG</u>	Returns the logarithm of a given number, to a specified base
<u>LOG10</u>	Returns the base 10 logarithm of a given number

Trigonometry Functions

<u>PI</u>	Returns the constant value of pi
<u>COS</u>	Returns the Cosine of a given angle
<u>SIN</u>	Returns the Sine of a given angle

Q4. Explain the function related to workbook in brief: creating, editing and saving.

The File menu contains all of the operations that we'll discuss in this lesson: **New, Open, Close, Save,** and **Save As.**



New

This is used to create a new workbook.

Open

This is used to open an existing file from a floppy disk or hard drive of your computer.

Close

This is used to close a spreadsheet.

Save As

This is used to save a new file for the first time or to save an existing file with a different name.

Save

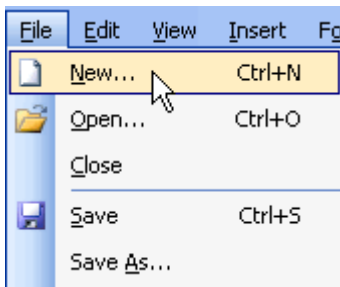
This is used to save a file that has had changes made to it. If you close the workbook without saving it, any changes that were made will be lost.

Creating a workbook

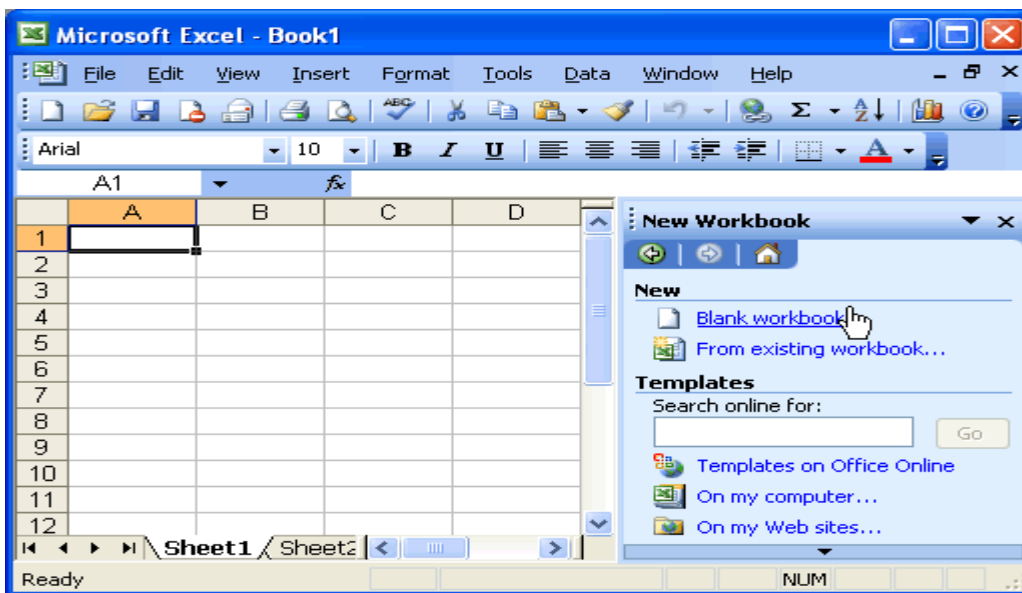
A blank workbook is displayed when Microsoft Excel is first opened. You can type information or design a layout directly in this blank workbook.

To create an Excel workbook:

- Choose **File** → **New** from the menu bar.



- The **New Workbook** task pane opens on the right side of the screen.



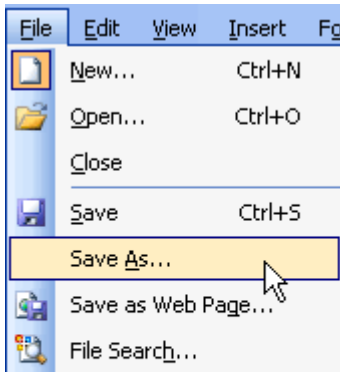
- Choose **Blank Workbook** under the **New** category heading.
- A blank workbook opens in the Excel window. The **New Workbook** task pane is closed.

Saving a workbook

Every workbook created in Excel must be saved and assigned a name to distinguish it from other workbooks. The first time you save a workbook, Excel will prompt you to assign a name through the **Save As** operation. Once assigned a name, any additional changes made to the text, numbers, or formulas must be saved using the **Save** operation.

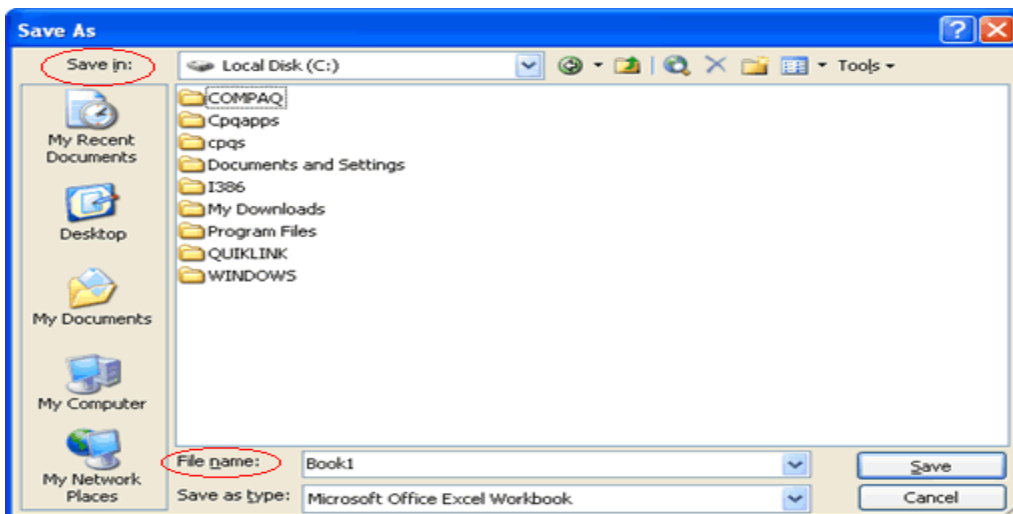
To save a new workbook:

- Choose **File** → **Save As** from the menu bar.



Choose the **Save As** command when saving an Excel file for the first time.

- The **Save As** dialog box appears.
- Click the **Save In:** drop-down menu, and locate where the file will be saved. Choose **3 1/2 Floppy (A:)** to save the file to a floppy disk or **Local Disk (C:)** to save the file to your computer.
- Type a name for your file in the **File Name:** box.
- Click the **Save** button.



To save changes made to an existing workbook:

- Choose **File** → **Save** from the menu bar, or

Click the  Save button on the Standard toolbar.