

CLASS : **VIII**

SUBJECT : **Computer Science**

CHAPTER : **Functions and Charts in Excel (Ch 3)**

In Microsoft Excel **formulas** help to perform mathematical operations such as addition, subtraction, multiplication, average etc.

Functions are predefined formulas in Excel that perform calculations by using specific values, called **arguments**.

The rules for entering a function are as follows:

- a) A function always begins with an equals sign "=".
- b) The function arguments are given in small brackets () after the name of the function.

AutoSum (Σ) is a feature used to insert some commonly used functions.

Some commonly used functions are:

a) Mathematical functions include SUM, PRODUCT, QUOTIENT and POWER.

=SUM (Num1, Num2, ...)

= PRODUCT (Num1, Num2, ...)

=QUOTIENT (Numerator, Denominator)

=POWER (Num, Power)

b) Statistical functions include MAX, MIN, COUNT, COUNTA and AVERAGE.

=MAX (range of numbers)

=MIN (range of numbers)

=COUNT (cell range)

=COUNTA (cell range)

=AVERAGE (cell range)

Charts in Ms-Excel:

A **chart** is a graph on an Excel worksheet used to represent data in a pictorial form. It makes the data more understandable in a worksheet. It is easy to comprehend the patterns and trends in a chart.

A chart has *various components* such as chart title, gridlines, legend, x-axis, y-axis, x-axis title and y-axis title.

Some commonly used charts types are:

- ✓ Column chart... To compare data using vertical bars
- ✓ Line chart... To show trends over time using lines
- ✓ Pie chart... To compare proportions or parts of a whole

- ✓ Bar chart... To compare data using horizontal bars
- ✓ Area chart... Similar to a line chart with the areas under the lines filled in.

A chart can be created, modified, deleted, moved or resized.

❖ A chart can be **created** from the *Insert* tab in the *Charts* group.

❖ To **modify** a chart

- a) The *Design* tab is used to change the chart type, layout, style and location of the chart.
- b) The *Layout* tab is used to insert pictures, shapes, labels in the chart.
- c) The *Format* tab is used to change the font, color, size of the text in the chart.

❖ A chart can be **moved** from one location to another from the *Design* tab in the *Location* group. To move the chart within the same worksheet hover the mouse pointer over the chart area until it changes into a four headed arrow and drag the chart to a new location.

❖ A chart can be **resized** from the *Format* tab in the *Size* group from where the height and width of the chart can be changed. The sizing handles of a chart can also be dragged to resize it.

ASSIGNMENT:

Answer the following questions:

- 1.) What is a function? Write the rules for entering a function in MS-Excel.
- 2.) Differentiate between MAX and MIN functions.
- 3.) Explain the COUNT function.
- 4.) Define charts. How are charts useful?
- 5.) What are gridlines and legend in a chart?
- 6.) How is a line chart different from a pie chart?
- 7.) How will you move a chart within the same worksheet?
- 8.) Why are the Design, Layout and Format tabs used in a chart?