

Class -8 Chapter -3

MS Excel--formulas and functions

A. Tick (✓) the correct option

1. b. Pie ✓
The **pie** chart depicts each slice in a different colour.
2. c. F11 ✓
A **F11** key creates a chart instantly from selected data.
3. a. Grouping ✓
Data **grouping** is used to add/edit data in multiple worksheets at once.
4. d. Row ✓
Row is not a chart type in Excel.
5. d. Sparkline ✓
Sparkline is a tiny chart within a single cell.

B. Fill in the blanks

1. X-axis is the **Horizontal** axis whereas Y-axis is the **Vertical** axis of the chart.
2. Sparklines can be used with any numerical data in a **Tubular** format.
3. **Legend** specifies the colour, symbol, or pattern used to mark a data series.
4. An **Area** chart is the combination of a line and bar graph.
5. By default, every workbook contains at least one **Worksheet**.

C. Write T for True and F for False

1. Scatter is not a type of chart in Excel. – F
2. Chart data and text are linked to the worksheet from which the chart is created. – T
3. Excel has several predefined styles that you can use to change the look of your chart. – T
4. When a chart is created, you will get three new tabs Home, Insert and View. – F
(Correct tabs are: Design, Format, Chart Tools)
5. A bar chart organises the categories along the vertical axis. – F
(In a bar chart, categories are along the horizontal axis.)

Answer the following

1. Significance of Charts in Excel & Types

Charts help in visually representing data for easy understanding, comparison, and analysis. They highlight trends, patterns, and relationships in data.

Types of charts:

Column Chart – Displays vertical bars for comparison.

Bar Chart – Displays horizontal bars.

Line Chart – Shows trends over time using lines.

Pie Chart – Represents data as slices of a circle.

Scatter Chart – Plots points to show relationships.

Area Chart – Combines features of line and bar charts.

Combo Chart – Mixes two chart types (e.g., column + line).

2. Combo Chart & Steps to Create

Combo chart displays multiple types of data in one chart using more than one chart type.

Steps to create:

1. Select the data range.
2. Go to Insert > Combo Chart from Chart options.
3. Choose a Custom Combo Chart.
4. Assign chart types (e.g., line for one series, column for another).
5. Click OK to create the chart.

3. Elements of a Chart

Chart Area: The overall chart boundary.

Plot Area: The actual area where data is plotted.

Title: The heading of the chart.

Legend: Explains symbols, colours of data series.

Axis (X & Y): Horizontal (X) and vertical (Y) axes.

Data Series: The actual data points plotted.

Gridlines: Horizontal and vertical lines for reference.

4. Grouping Worksheets in Excel

To group:

1. Hold Ctrl and click sheet tabs to select.
2. Or, click one tab, then Shift + click another to select all in between.
3. Any changes you make (like entering data) will affect all grouped sheets.

To ungroup: Right-click a sheet and choose Ungroup Sheets.

5. Data Consolidation in Excel

Data Consolidation is used to combine data from multiple ranges/sheets into a single summary.

Steps:

1. Go to the sheet where you want to consolidate.
2. Click Data > Consolidate.
3. Choose a function (Sum, Average, etc.).
4. Select ranges to consolidate (from other sheets).
5. Tick Top row/Left column if using labels.
6. Click OK.

6. Short Notes

a. Legends

Legends describe the symbols and colours used in charts to represent data series. They help identify which data is represented by which visual element.

b. Sparklines

Sparklines are small, simple charts within a single cell that show trends or patterns, like stock price changes or sales over time.

c. Chart Styles

Excel provides predefined chart styles that allow users to quickly change the visual appearance of charts (colours, layout, font).

d. X and Y axis:

X-axis: The horizontal line that shows categories.

Y-axis: The vertical line that shows values.