**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.