PON VIDYASHRAM GROUP OF SENIOR SECONDARY SCHOOLS

CLASS – VII COMPUTER SCIENCE NOTES JUNE
Chapter – 2 Charts in Excel

D. SHORT ANSWER QUESTIONS

1. List any four elements of a chart

Charts consists of different elements like:
- Chart title
- Axis
- Value Axis
- Category Axis

2. Write the names of the tabs that appear when you select a chart.

- Chart element
- Chart style
- Chart filter

3. What is the difference between legends and gridlines?

LEGENDS	GRIDLINES
• The Legend displays the plotted data series with a predefined symbol and the name of the series.It also assigns a unique colour to each series.	• These are the parallel lines along the X-axis and Y-axis in the plot area which makes it easier to identify the value of each data point on the chart.

4. Define pie chart.

A pie chart is also known as a circular chart. It displays data points of individual items as a percentage of the whole. The pie is subdivided into slices for representing data values. The size of each slice shows what part of the 100% it represents. Using a pie chart, the monthly test marks of a student, percentage of votes, percentage of water on earth, etc.

E. LONG ANSWER QUESTIONS.

1. What do you understand by charts? Explain the benefits of charts.

Charts are a powerful tool by which we can represent data in different chart formats such as bar, column, pie, line and so on. Some benefits of creating charts are:

➤ They help in understanding and analysing large quantities of data easily.

➤ They make the analysis of data simpler and capture our interest visually.

➤ They provide a quick and easier way to read and understand the data.

2. Explain the different types of charts in Excel.

 (i) Column chart:

A column chart is used to represent the data in vertical bars. It gives a clear view of the highest, lowest and intermediate values. This type of chart is generally used for illustrating comparisons among different values. In a column chart, categories pie organized horizontally, and their values are organized vertically.

 (ii) Line Chart:

This chart is in the form of lines. It is very similar to plotting a graph on the graph paper with its values on the X and Y-axis. It shows trends or changes in data over a period time using the points. All the points are connected to lines. It emphasizes time flow and rate of change rather than the amount of change. A line chart can be used to show daily changes in stock market, monthly temperature changes, weather forecasting and so on.

(iii) Pie Chart:

A pie chart is also known as a circular chart. It displays data points of individual items as a percentage of the whole. The pie is subdivided into slices for representing data values. The size of each slice shows what part of the 100% it represents. Using a pie chart, the monthly test marks of a student, percentage of votes, percentage of water on earth, etc.

(iv) Bar Chart:

A bar chart represents data using bars at different heights. It is very similar to the column chart but unlike column charts, the bar chart uses horizontal bars instead of vertical bars. We can compare different values using a bar chart. Each bar in a bar chart is a single data point or number on the sheet.

(v) Area Chart:

An area chart represents the time-tracking qualities like a line chart but also displays relative proportions very well with the help of colours. The colours are filled in the areas below the lines. It looks more attractive as compared to a line chart and allows viewers to see how the data series in the background vary.

(vi) XY(Scatter) Chart

In Excel, using the scatter chart a set of values can be plotted for X and Y variables. The X and Y points represent the X-axis and Y-axis respectively. This type of chart is widely used for plotting statistical and engineering data.

3. What is a chart layout? How can you change it?

A chart layout contains the information for the structure and design of the various graphs. It determines which graphs are displayed and how they are arranged. Chart elements must be integrated in chart layouts for Smart Chart to be able to display these in graphs.

Setting the Style of a Chart

Follow these steps to set the style of a chart:
Step 1:
Select the chart for which you want to change the style. Three buttons will appear at the upper-right corner of the chart outside the chart area.

Step 2:
Select the second button, known as Chart Styles button. This button contains two tabs - Style and Color.

Step 3:
Click on the Style tab. There are a variety of styles. Hover the mouse over a chart style to see its preview. Choose the required style. The style is applied to the chart.

Step 4:
Click on the Color tab. There are a variety of colours. Hover the mouse over a chart colour schemes to see their preview. Choose the required colour. The colour scheme is applied to the chart.

4. What is a combo chart? Explain giving examples.

A combo chart can be defined as a chart that combines two or more data series to make the data easy to understand. This type of chart is used when numbers in your data vary widely from data series to data series, or you have mixed types of data.

Example: price and volume

5. How can you insert and remove chart elements?

The chart elements add more description to your charts. This helps in making your charts more meaningful and visually appealing.

Follow these steps to change the chart elements:

Step 1:

Select the chart that you want to edit. Three buttons will appear at the upper-right corner of the chart outside the chart area.

Step 2:

 Select the first button, known as the Chart Elements chart elements button A list of chart element will appear with checkboxes.

Step 3:

Check all the elements that you want to appear on your charts and uncheck the elements that you don't want to appear in the chart.

6. Write the steps to delete a chart.

To delete the chart, just click on the outer boundary of the chart and press Delete key. The selected chart will disappear from the worksheet.

F. DIFFERENTIATE BETWEEN

1. Line chart and pie chart

LINE CHART	PIE CHART
• This chart is in the form of lines. • It is very similar to plotting a graph on the graph paper with its values on the X and Y-axis. • It shows trends or changes in data over a period time using the points. All the points are connected to lines. • A line chart can be used to show daily changes in stock market, monthly temperature changes, weather forecasting and so on.	• A pie chart is a circular chart that is divided into slices to represent data. • It is best used for showing how parts contribute to a whole or when comparing percentages. • The size of each slice represents the proportion of the whole. • It can be difficult to compare data sets using a pie chart, and it is generally not recommended to use pie charts when there are more than 5-6 categories.

2. Column chart and Bar chart

COLUMN CHART	BAR CHART
• A column chart is a vertical chart that displays data as rectangular bars. • It is best used for comparing data across categories or for showing changes over time. • The height of each bar represents the value of the data point. • It is easier to compare data sets using a column chart than a pie chart.	• A bar chart is a horizontal chart that displays data as rectangular bars. • It is also best used for comparing data across categories or for showing changes over time. • The length of each bar represents the value of the data point. • It is similar to a column chart, but it is better suited for presenting data that has long category names.

3.Chart area and plot area

CHART AREA	PLOT AREA
Chart Area includes charts and the entire element related to the chart.	Plot Area does not covers entire element of chart. It only includes the graphical representation of the charts.