## > Important terms:-

## Words to Know

- Chart: The graphical representation of worksheet data.
- Axes: The horizontal and vertical lines that surround the plot area used as reference points for measuring the data values being plotted on the chart.
- Chart area: The entire area containing the chart and all its elements such as plot area, titles, legend and data table.
- Data marker: Any symbol such as a bar, an area, a dot or a slice that is used to represent a value in a chart.
- Data series: The set of data values that are plotted in a chart.
- Gridlines: The horizontal or vertical lines in the plot area of a chart.
- Legend: A box that helps in identifying various plotted data series by assigning a unique colour or pattern to a particular data series in a chart.
- Plot area: The area containing the chart, axes and gridlines of a chart.
- Charts are graphical representation of worksheet data.
- The various elements of a chart are data series, gridlines, axes, chart title, legends, chart area, plot area, axes titles, data markers and data labels.
- Various types of charts such as column chart, pie chart and line chart can be plotted in Excel.
- The Insert tab has options for inserting chart.
- Two contextual tabs-Design and Format tabs-appear whenever we click on a chart. These tabs have options for customising and formatting the chart.


## Practice Zone

Suggest the suitable type of chart for plotting the following.

1. To compare the production of various items such as rice, wheat, barley over a period of three years.
2. To depict the size of items in one data series, proportional to the sum of the items sold by a company.
3. To display the trends in the demand of refrigerators over a period of last five years.
Answer:-
4. Doughnut Chart
5. Pie Chart
6. Line Chart
7. 



| Component of a chart |  | Purpose |  |
| :--- | :--- | :--- | :--- |
| 1. | Plot area | a) | A box containing a unique pattern or colour to identify <br> each data series on a chart |
| 2. | Data marker | b) | An entire area containing the chart and all its elements |
| 3. | Axes | c) | Any symbol such as a bar, an area, a dot or a slice used <br> to represent a value in a chart |
| 4. | Gridlines | d) | The horizontal and the vertical lines that surround the <br> plot area used as reference points for measuring the <br> data values being plotted on the chart |
| 5. | Legend | e) | An area containing the chart, axes and gridlines |
| 6. | Chart area | f) | The horizontal or the vertical lines in the plot area used <br> to identify the value of each data point on the chart |

## Answer:- 1. -(e)

2. -(c)
3. -(d)
4. -(f)
5.-(a)
6.-(b)
A. Choose the correct answer.
5. Identify the component of the chart that helps in identifying various plotted data series by assigning a unique colour or pattern to a particular data series.
a) Chart title
b) Axes
c) Plot area
d) Legend
6. Which of the following charts plot the data series as rings?
a) Bar chart
b) Line chart
c) Pie chart
d) Doughnut chart
7. Identify the chart that uses connecting dots to depict the trends over a period of time.
a) Line chart
b) Pie chart
c) Bar chart
d) Doughnut chart
8. The horizontal or the vertical lines in the plot area that help us in easily identifying the value of each data point on the chart is called $\qquad$ -.
a) Gridlines
b) Axes
c) Chart Title
d) Legend

Answers of Choose the correct answer:-
(1)- d
(2)- d
(3)- a
(4)- a
B. Fill in the blanks using the words given in the box.
pie data marker bar insert design.

1. The option to add charts in the worksheet is present under the $\qquad$ tab.
2. Any symbol such as a bar, an area or a slice used to represent a value in a chart is called
$\qquad$ _.
3. The $\qquad$ chart represents values on the horizontal axis and categories on the vertical axis.
4. The $\qquad$ tab shows inbuilt chart styles.
5. The relationship of individual items to the sum of all items in the series can be represented using the $\qquad$ chart.

## Answers of Fill in the blanks:-

(1)Insert
(2)Data marker
(3)Bar
(4)Design
(5) Pie
C. State whether the following statements are True or False.

1. Doughnut chart can plot only one data series.
2. Once added, we cannot change the look and feel of the chart.
3. We can give titles to the $x$-axis and $y$-axis.
4. We can change the location of the placement of the chart.
5. Bar charts represent categories on the $y$-axis and values on the $x$-axis.

Answers of "C" Section:-

1. False
2. False
3. True
4. True
5. True
D. Answer the following questions:-
D. Answer the following questions.
6. What is a chart? What are the advantages of charts?
7. What is the use of gridlines and legends in a chart?
8. What is the difference between a bar chart and a column chart?
9. Write steps to:
a) insert a chart.
b) add legend to the chart.
c) change the chart layout.
10. 
11. Answer:- Charts are graphical representation of worksheet data. Data when represented in the form of charts makes it easier for users to quickly understand, compare and find patterns and relationships.

Data represented using charts can be easily understood, interpreted and analysed.

## 2. Answer:-

Gridlines:- These are the horizontal or the vertical lines in the plot area. These lines make it easier to identify the value of each data point on the chart.

Legend:- The legend identifies each data series in a chart. Each data series is assigned a unique colour or pattern to differentiate one data series from another.

## 3. Answer:-

Bar Chart:- the values are represented on the horizontal axis whereas categories are represented on the vertical axis.

## But,

In Column Chart:- The values are represented on the vertical axis whereas categories are represented on the horizontal axis.

## 4. Answer:- (a) Insert a Chart

Step 1:- Select the range of cells containing the data (including the column titles and the row labels) to be plotted on the chart.
Step 2:- Click on the insert tab
Step 3:- Click and select the desired chart category in the Charts group.
Step 4:- Select the desired chart sub-type. In this case, click on the Clustered Column chart sub-type. The chart appears in the worksheet.
(b) To add legend to the Chart

Step 1:- Click on the Legend option in the Add Chart Element drop-down list.
Step 2:- Choose the appropriate option for the placement of legend in the chart area.
(c) To change the chart layout

We can change the visual style of the chart any time after we have added the chart. Click on the chart and choose an appropriate style in the Chart Styles group on the Design tab

