UNIT 5 CHARTS

Structure

5.0 INTRODUCTION

Charts are the graphic component of Excel. The data which is entered as tables can be viewed in the graphical form as charts which makes the figures of data effective, interesting, easy to understand, and easy to analyze and compare data. Chart can be of two types :

Embedded Charts: These charts are included in the worksheet and can be moved, copied, and resized as any other graphical object. It's advantage is that it can be viewed along with the data and many charts can be inserted.

Chart Sheet: Separate Chart Sheets are inserted when a chart is created. It contains only one chart. To create Chart Sheets, choose **Insert -> Chart -> As New Sheet.**

Excel helps you to create chart as either 2-dimensional or 3-dimensional. The Chart Wizard guides you all the way till you finish your work of creating it. After creating a chart, you can enhance the information by adding chart items, such as data labels, a legend, titles, text, and gridlines. You can also format these items using patterns, colours, alignment, fonts, and other formatting attributes. Any change in data will update the changes in the chart which was made using that data.

5.1 OBJECTIVES

After going through this unit, you will be able to

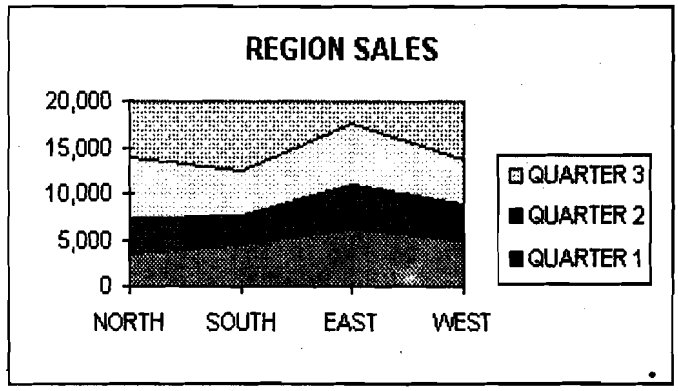
- draw charts using Chart Wizard.
- resize and move in the worksheet.

- edit chart type, pattern, colour and text font
- use short-cut menu to insert data labels, legends
- use built-in formats and user-defined formats to quickly format the charts.
- print embedded charts as well as chart sheets

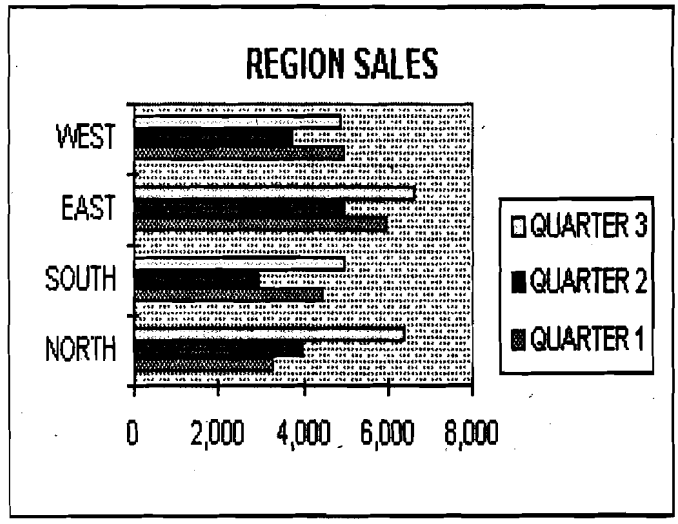
5.2 CHART TYPES

MS-Excel offers 15 different major chart types, each of which has at least one subtype, or variation. You can change the chart type to present your data most clearly and effectively. The various chart types are :

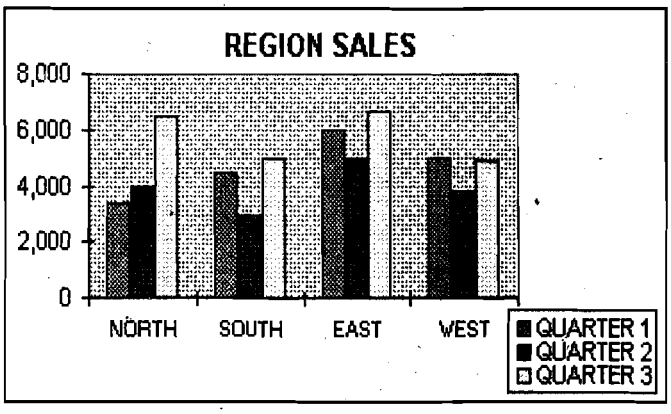
Area Chart: This shows the magnitude of change over time. It is a stacked line chart, with the area between the lines filled with colour and shading. The data series are plotted one on top of the other.



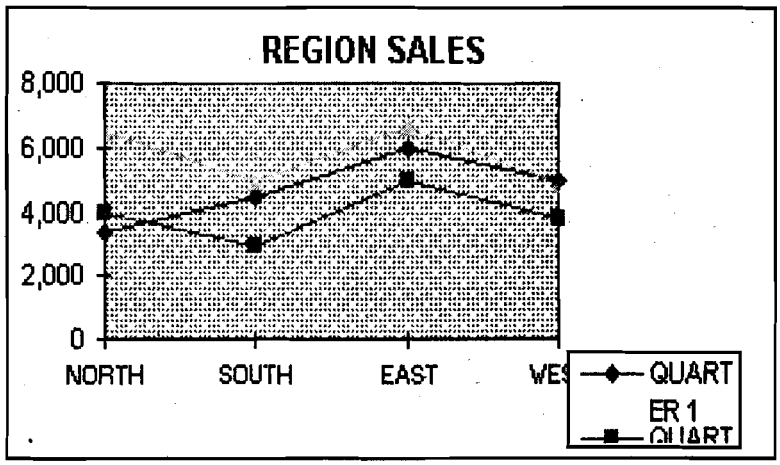
Bar Chart: It consists of the series of horizontal bars that allow comparison of the relative size of two or more items.



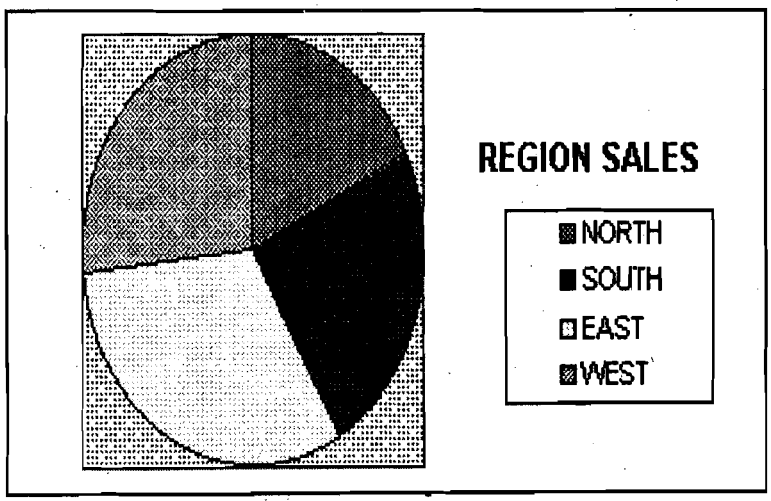
Column Chart: This consists of a series of vertical columns that allow comparison of the relative size of two or more items.



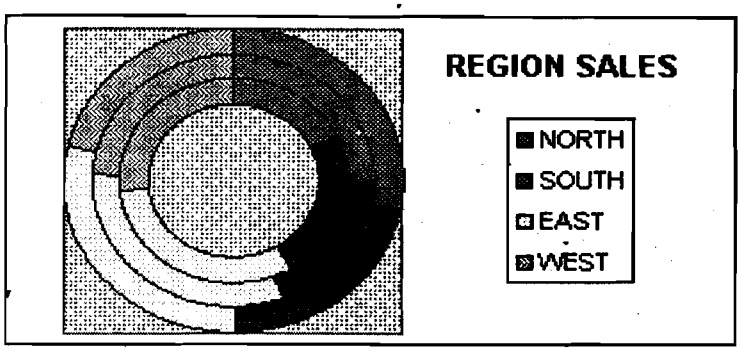
Line Chart: Each of the data series are plotted as lines of different colour and shading.



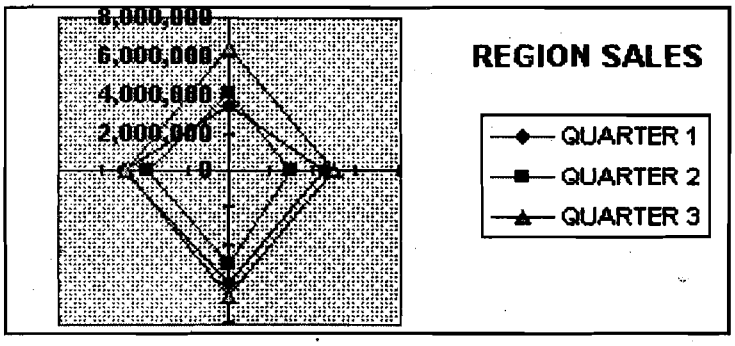
Pie Chart: These are the best charts to compare the percentages of the sum the data series. It represents only one data series.



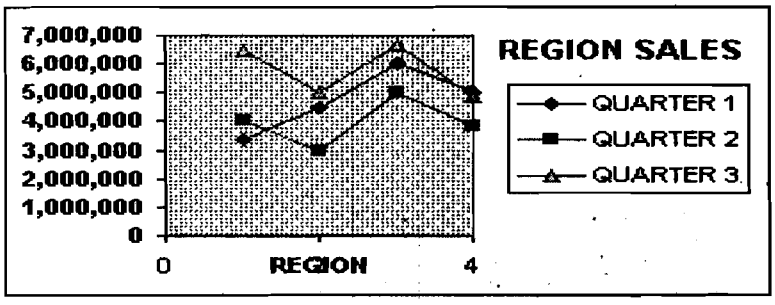
Doughnut Chart: It is similar to Pie Chart but it represents more than one data series.



Radar Chart: This shows the data values in relation to the centre point and to each other. Data of the same data series are connected by lines.



XY (Scatter) Chart: The value of the data series is plotted as the intersection point of the X-ax and Y-axis.



5.3 EDITING CHARTS

Once you have created a chart, you may want to update it by adding or deleting more data series or data points from the worksheet, change the chart type format a chart, or draw inside a chart. The method you use to add data is determined by the kind of chart (embedded chart or chart sheet) you want to update.

5.3.1 Adding or Deleting Data

Adding or deleting data automatically updates any existing legend. Using the Chart Wizard, you can change the range that a chart is based on. If your chart was created from multilevel categories and series, you must use the ChartWizard to reselect your data and recreate the chart.

1. To add data to an embedded chart on a worksheet, you can drag and drop data from that worksheet. Using copy and paste is the easiest way to add data to a chart sheet. Or you can use the **New Data** command for either embedded charts or chart sheets.

2. You can also delete data series from a chart by double clicking on that and pressing the **Delete** key.

5.3.2 Change the Chart Type

There are various chart types to choose from. This can be done if you follow the given steps :

1. Select the chart by double clicking on it. It puts a border around the chart.

2. Choose **Format -> Chart Type**, and select the new chart.

or

Click on Chart Wizard tool button. (this will show only 2 steps out of 5.

5.3.3 Format a Chart

Once you create a chart and add chart items such as data labels or titles, you can then format many of the items in the chart.

1. Select the chart area or plot area.
2. Press the right mouse button to get the short-cut menu, and choose **Format Chart Area**.
3. This opens up the dialog box where you can globally apply colours, patterns, borders, and text fonts.

   One chart item at a time can also be selected and formatted.

There is an easy alternative to selecting and formatting individual chart items, i.e., you can apply a built-in chart autoformat. Or you can create your own custom (user-defined) autoformats, which you can apply to charts. Autoformats work much like templates or styles. Each autoformat is based on a chart type. It can also include subtype, legend, gridlines, data labels, colours, patterns, and the placement of various chart items. When you apply an autoformat to an active chart, it changes the entire look of the chart but does not affect your data.

To use a Built-in Format :

1. Select the chart.

2. Choose **Format -> Autoformat.**

3. From the dialog box, select **Built-in** choose any of the charts from **Galleries.** On the right side, various formats are displayed from where you can select any.

To Create a Custom Format :

1. Create a chart having all those features (chart type, font, pattern and other formats).
2. Activate the chart.
3. Choose **Format -> Auto Format.**
4. Select the **User-defined** option and click on **Customize** button.
5. Click on the **Add** button.
6. Enter the name for the format, if desired.
7. Click on OK.

5.3.4 Drawing in the Chart

You can draw the objects in the chart in the similar manner as you draw on the worksheet. For this,

1. Select the chart.
2. Activate the Drawing Toolbar, if it is not activated already.
3. Click on the appropriate tool button of the toolbar and draw on the chart.

Check Your Progress

1. What is the significance of formulas in calculations ?

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2. Explain the recalculation feature of MS-Excel.

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3. Give the basic properties of formulas.

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4. What are functions ?

5. Give two examples for each category of functions.

6. Differentiate between VLOOKUP() and HLOOKUP() functions.

7. What is Function Wizard ?

5.4 SUMMARY

In this session, you learned:

1. To draw charts using Chart Wizard.
2. Charts can be resized and moved in the worksheet.
3. Editing of chart type, pattern, colour and text font can be easily done.
4. Once you select the chart, most of the menu commands are displayed in relation to charts only.
5. Short-cut menu can be used to insert data labels, legends, and select the chart type.
6. Built-in formats and User-defined formats can be used to easily and quickly format the charts.
7. Charts are very useful tools to analyze data.
8. Embedded charts as well as Chart Sheets can be printed.