

1. Write a VBA code to enter your name in A1 Cell using Input Box and once you enter the name display a message box that says the name has been entered.

ANS:-

```
Sub EnterName()  
    Dim name As String  
  
    name = InputBox("Enter your name:")  
    Range("A1").Value = name  
  
    MsgBox "Your name has been entered."  
End Sub
```

2. What are Userforms? Why are they used? How to fill a list box using for loop.

ANS:- Userforms are custom dialog boxes in Excel VBA that allow users to interact with the program in a more user-friendly way. They are used to display and gather information from users, or to perform specific actions within the program.

A list box is a common control used in userforms to display a list of items to the user. To fill a list box using a for loop, follow these steps:

Create a new userform in the VBA editor by clicking on "Insert" > "Userform".

Add a list box control to the userform by clicking on the list box icon in the toolbox and drawing the control onto the userform.

Right-click on the list box control and select "Properties" to bring up the properties window.

In the properties window, find the "List" property and click the "..." button to open the "List" editor.

In the "List" editor, add the items you want to display in the list box, separated by commas. For example: "Item 1, Item 2, Item 3".

In the VBA editor, add a for loop to populate the list box with items.

3. What is an array? Write a VBA code to enter students and their marks from the below table.

ANS:- An array is a data structure in VBA that allows you to store multiple values of the same data type in a single variable. Arrays can be one-dimensional, two-dimensional, or multi-dimensional.

```
Sub EnterDataIntoArray()  
  
    Dim studentData() As Variant  
  
    Dim lastRow As Long  
  
    Dim i As Long  
  
    lastRow = Range("A" & Rows.Count).End(xlUp).Row  
  
    ReDim studentData(1 To lastRow, 1 To 2)  
  
    For i = 1 To lastRow
```

```

studentData(i, 1) = Range("A" & i).Value
studentData(i, 2) = Range("B" & i).Value
Next i
End Sub

```

4. Use the following data to create a pie chart using VBA code. Use Font - 'Times new Roman', Size - 14, Bold, Title - Piechart' and you are free to use colours as per your taste.

ANS:-

```

Sub createPieChart()

    ' Define variables for data and chart
    Dim dataRange As Range
    Dim chartTitle As String
    Dim chartObject As chartObject

    ' Set data range and chart title
    Set dataRange = Range("A1:B4")
    chartTitle = "Pie Chart"

    ' Create new chart object and set chart type
    Set chartObject = ActiveSheet.ChartObjects.Add(Left:=100, Width:=400, Top:=75, Height:=300)
    chartObject.Chart.ChartType = xlPie

    ' Set chart title and font
    chartObject.Chart.HasTitle = True
    chartObject.Chart.chartTitle.Text = chartTitle
    chartObject.Chart.chartTitle.Font.Name = "Times New Roman"
    chartObject.Chart.chartTitle.Font.Size = 14
    chartObject.Chart.chartTitle.Font.Bold = True

    ' Set data range and series values
    chartObject.Chart.SetSourceData Source:=dataRange

```

```
chartObject.Chart.SeriesCollection(1).Values = dataRange.Columns(2)
```

```
' Set colors for data points
```

```
chartObject.Chart.SeriesCollection(1).Points(1).Format.Fill.ForeColor.RGB = RGB(255, 0, 0) ' red
```

```
chartObject.Chart.SeriesCollection(1).Points(2).Format.Fill.ForeColor.RGB = RGB(0, 255, 0) ' green
```

```
chartObject.Chart.SeriesCollection(1).Points(3).Format.Fill.ForeColor.RGB = RGB(0, 0, 255) ' blue
```

```
chartObject.Chart.SeriesCollection(1).Points(4).Format.Fill.ForeColor.RGB = RGB(255, 255, 0) ' yellow
```

```
End Sub
```

5. Write step by step procedure to protect your workbook using a password.

ANS:- Here's a step-by-step procedure for protecting your workbook using a password in Microsoft Excel:

Open the workbook that you want to protect.

Click on the "File" tab in the ribbon at the top of the screen.

Click on "Info" in the left-hand menu.

Click on "Protect Workbook" in the right-hand pane.

Select "Encrypt with Password" from the drop-down menu.

Enter a password that you want to use to protect the workbook in the "Password" field. Note that the password is case-sensitive and can be up to 255 characters long.

Click "OK" to confirm the password.

Re-enter the password in the "Reenter password to proceed" field and click "OK".

Save the workbook to apply the password protection.

Now, when you or anyone else tries to open the workbook, Excel will prompt for the password before allowing access. Note that if you forget the password, there is no way to recover it, so make sure to remember it or keep a backup copy of the workbook without the password protection