Excel Assignment – 18

1. What are comments and what is the importance if commenting in any code?

2. What is Call Statement and when do you use this statement?

3. How do you compile a code in VBA? What are some of the problem that you might face when you don't compile a code?

4. What are hot keys in VBA? How can you create your own hot keys?

5. Create a macro and shortcut key to find the square root of the following numbers 665, 89, 72, 86, 48, 32, 569, 7521

6. What are the shortcut keys used to

a. Run the code

b. Step into the code

c. Step out of code

d. Reset the code

ANSWERS:

1. **Comments and Importance in Code:**
    - Comments are annotations within code that are ignored by the compiler or interpreter.
    - Importance:
        - **Documentation:** Comments provide information about the purpose, logic, and functionality of the

code, making it easier for others (or yourself) to understand.
- **Troubleshooting:** Comments can help identify and address issues in the code during debugging.
- **Communication:** They facilitate communication between team members working on the same codebase.

2. **Call Statement:**
   - The **Call** statement is used to call a subroutine or function in VBA.
   - Example:
   - Sub MySubroutine()
   - ' Code for the subroutine
   - End Sub
   -
   - Sub AnotherSubroutine()
   - ' Using the Call statement to call MySubroutine
   - Call MySubroutine
   - End Sub
   - The **Call** statement is optional and is rarely used in modern VBA. You can simply use the subroutine or function name without the **Call** keyword.

3. **Compile a Code in VBA:**
   - To compile VBA code, open the VBA editor (Alt + F11), go to Debug menu, and choose Compile VBAProject.
   - Problems without compilation:

     - **Syntax Errors:** Unclosed loops, missing parentheses, etc., may result in syntax errors that prevent code execution.
     - **Undeclared Variables:** Variables used without declaration can cause runtime errors.
     - **Undefined Procedures:** Calling a nonexistent procedure results in a compilation error.

4. **Hot Keys in VBA:**

- Hot keys are keyboard shortcuts that perform specific actions in the VBA editor.
- To create custom hot keys:
    - In the VBA editor, go to Tools > Options.
    - Under the Editor tab, assign a key combination for specific actions.

5. **Macro to Find Square Root with Shortcut Key:**

- Open the VBA editor (Alt + F11).
- Insert a new module (Insert > Module).
- Enter the following code:

```
Sub FindSquareRoot()
    MsgBox "Square Root of 665: " & Sqr(665) & vbCrLf &
_
           "Square Root of 89: " & Sqr(89) & vbCrLf & _
           "Square Root of 72: " & Sqr(72) & vbCrLf & _
           "Square Root of 86: " & Sqr(86) & vbCrLf & _
           "Square Root of 48: " & Sqr(48) & vbCrLf & _
           "Square Root of 32: " & Sqr(32) & vbCrLf & _
           "Square Root of 569: " & Sqr(569) & vbCrLf & _
           "Square Root of 7521: " & Sqr(7521)
End Sub
```

- Close the VBA editor.
- To assign a shortcut key, right-click on the macro in the Macro dialog, select "Options," and choose a key in the "Shortcut key" field.

6. **Shortcut Keys in VBA:**

- a. **Run the Code:** F5
- b. **Step Into the Code:** F8
- c. **Step Out of Code:** Shift + F8
- d. **Reset the Code:** Ctrl + Break