

**PUSASQF406**  
**Advanced Application of Excel**

Time: 2 hours  
Total Marks: 60 marks

**Note:**

1. All subs and functions should be written in the workbook itself and the excel file should be saved as an .xlsm file and submitted.
2. Kindly use comments in your code to indicate the question number as well as any explanation that you wish to provide.
3. PLEASE MAKE A BACK\_UP COPY OF the EXCEL SHEET SO THAT AN ERRONEOUS MACRO DOES NOT RESULT IN YOUR WORK BEING DELETED

**Q1. Question 1 pertains to Sheet 1:**

A hat store intends to make a Black Friday sales promotion. However, before lowering the prices, the store manager decides to adjust the prices up so the given discounts will not reduce the store's margin of sales by much. To do that, he decided that he would follow the following rules:

**5 Marks**

**A)**

Write a macro that will give the amount required to adjust the prices in column C:

Initial Price	Adjustment
6 to 15	15%
15.01 to 25	25%
25.01 or more	35%

**B)**

Write a macro to calculate the amount of discount given:

New Price	6 to 15	15.01 to 22	22.01 to 33	33.01 or more
Discount	10%	17.50%	25%	30%

**5 Marks**

**C)**

Write a macro that will color the cells in column G green, if the new price of the item is lower than previous price.

**5 Marks**

**5 Marks**

**Q2. Question 2:**

**A)**

You are given two sheets FirstName and Surname. Write a macro that will join the name and surname in a single cell in the sheet full name.

**5 Marks**

**B)**

Write a macro that will calculate the square root and cube of the numbers given in numbers sheet.

**5 Marks**

**C)**

Write a macro that will hide all the sheets in the workbook.

**Q3. Please solve either part A or B.**

**30 Marks**

**Q3A**

- a) Write a custom function that can count the number of vowels in a word. (10)
- b) Write a custom function that takes effective interest rate as an input and can be used to determine interest rate convertible pthly and discount rate.  
 $d=i*v$   
 $i(p)=p*((1+i)^{(1/p)}-1)$  (10)
- c) You are given sales data which provides data of the manager and item sold and the sale amount. You have to create a chart that will be linked to a pivot. The chart should show the sum of sales amount against the manager for each item. (10)

**Q3B**

Create a userform called Add a contact

**30 Marks**

Salutation: 3 options, Mr, Miss, Mrs
First Name: Text Box
Last Name: Text Box
Address: Text Box
Place: Text Box
Country: ComboBox

And the following buttons with the given functionality

Button	Functionality
Close	Resets the userform
Add	Adds the records to the spreadsheet and resets the userform

Your userform should have following functionalities:

- 1) You have to create a combo box for countries using the countries given in sheet "Country"
- 2) If any answer is not given in the form then the color of Label should change to red.