Advance Excel Assignment 2

1. What does the dollar ($) sign do?

Ans: Microsoft Excel and other spreadsheet software use the dollar sign ($) to denote a fixed row, fixed column reference, or an absolute cell reference.

2. How to Change the Reference from Relative to Absolute (or Mixed)?

Ans:

- Press F4 key once: The cell reference changes from A1 to A1 (becomes 'absolute' from 'relative').
- Press F4 key two times: The cell reference changes from A1 to A$1 (changes to mixed reference where the row is locked).
- Press F4 key three times: The cell reference changes from A1 to $A1 (changes to mixed reference where the column is locked).

3. Explain the order of operations in excel?

Ans:

- When evaluating a formula, Excel follows a standard math protocol called "order of operations". In general, Excel's order of operation follows the acronym PEMDAS (Parentheses, Exponents, Multiplication, Division, Addition, Subtraction) but with some customization to handle the formula syntax in a spreadsheet.
- First, any expressions in parentheses are evaluated. Parentheses essentially override the normal order of operations to ensure certain operations are performed first
- Then, Excel will resolve references. This involves replacing cell references like A1 with the value from the cell, as well as evaluating range references like A1:A5, which become arrays of values. Other range operations like union (comma) and intersection (space) also happen at this time.

- Then, Excel will perform exponentiation, negation, and percent conversions (in that order), followed by multiplication and division, addition and subtraction, and concatenation.
- If a formula contains multiple operators with the same priority (e.g. multiplication and division, or addition and subtraction), Excel will evaluate the operators from left to right.
- Then, Excel will evaluate logical operators, if present.
  Excel solves formulas in the following order:
  1. Parentheses
  2. Reference operators
  3. Exponents
  4. Negation
  5. Percent
  6. Multiplication and Division
  7. Addition and Subtraction
  8. Concatenation
  9. Logical operators

4. What, according to you, are the top 5 functions in excel and write a basic syntax for any of two?

Ans:

1. **The SUM Function** : The sum function is the most used function when it comes to computing data on Excel. This function works to sum a group of numbers in a specific set of cells. This means you don't need to type a long cumbrous formula just to calculate the sum of all the data you need.

The syntax formula for the sum function is "=SUM" (number1, number2, etc.)

2. The TEXT Function : Text function is a useful tool that helps convert a date (or number) into a text string in a particular format. It falls in the category of string formulas that convert numerical values to a string. It is handy when users need to view numeric data in a readable format. Take note that the "TEXT" formula only works to convert

numeric values to text. Therefore, its results cannot be calculated.

The syntax formula for the text function is “=TEXT” (value, format_text)

● “Value” refers to the particular number you wish to convert to text.

● “Format_text” defines the format of the conversion.

3. **The VLOOKUP Function** : VLookup is a powerful Excel function that is often overlooked. Users will find it useful when they need to find specific data on a large table.

You can also use VLookup to search for names, phone numbers, or specific data on your sheet. Instead of manually looking for the names and wasting time scrolling

through hundreds of data, the VLookup function makes this process faster and more efficient.

The VLookup formula is “=VLOOKUP” (lookup_value, table_array, col_index_num, *range_lookup*).

● “lookup_value” is the data you want to find.

● “table_array” is the data column where you want to limit your search.

● “col_index_num” is the column number within the table that you want to return a

value from.

● “range_lookup” is an optional argument that allows you to search for the exact

match of your lookup value without sorting the table.

4. **The AVERAGE Function** : The average function is an extremely useful tool for

getting the average value in a range of cells. Like the sum function, it is frequently used

in computing and analyzing data on spreadsheets. Basically, the average function works

to find the “arithmetic mean” for a group of cells. Aside from the average function, Excel

also has the median and mode function.

The syntax formula for the average function is “AVERAGE” (number1, number2,

etc.).

● “Number 1” refers to the first number in the range where you want the average.

● “Number 2” is the additional reference of the average range. You can get an

average of up to a maximum of 255 cells.

5. **The CONCATENATE Function** : This function is a good time saver when you need

to combine data from 2 or more cells. Unlike the merge tool which physically merges two or more cells into a single cell, the concatenate function only combines the contents of the combined cells. In the latest version of Excel (2016), the concatenate function has been replaced with concat function and will be incorporated in more future versions of Excel.

The syntax formula for the concatenate function is “CONCATENATE” (text1, [text2...text_n]),

● “Text1, Text2...text_n” are the data you want to combine.

5. When would you use the subtotal function?

Ans:

- The SUBTOTAL function is used when you display a Total row in an Excel Table. Excel inserts the SUBTOTAL function automatically, and you can use a drop-down menu to switch behavior and show max, min, average, etc.
- The Excel SUBTOTAL function returns an aggregate result for supplied values. SUBTOTAL can return a SUM, AVERAGE, COUNT, MAX, and others (see table below), and SUBTOTAL function can either include or exclude values in hidden rows.

6. What is the syntax of the vlookup function? Explain the terms in it?

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