Advance Excel Assignment 2

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

Ans. In Excel, the dollar sign ($) has a special meaning when used in cell references.

When you place a dollar sign before the column letter or row number in a cell reference, it creates an absolute reference. An absolute reference is a cell reference that does not change when you copy or move the formula or function that contains the reference.

For example, if you have a formula in cell A1 that references the value in cell A2, and you copy that formula to cell B1, the reference to cell A2 will remain A2 and will not change to B2. This is useful when you want to refer to a fixed cell or range, for example, when you have a formula in a column, you want to refer to a fixed cell in the first row, or when you have a formula in a row and you want to refer to a fixed cell in the first column.

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

Ans. In Excel, you can change the reference of a cell or range from relative to absolute (or mixed) by using the dollar sign ($) before the column letter and/or row number in the cell reference.

To change a relative reference to an absolute reference, simply place a dollar sign ($) before the column letter and/or row number in the cell reference. For example, if the cell reference is A1, you would change it to A1 to make it an absolute reference.

3. **Explain the order of operations in excel?**

Ans. The order of operations in Excel determines the order in which calculations are performed in a formula or function. It's similar to the order of operations in mathematics (PEMDAS) and it's used to ensure that formulas are calculated correctly.

The order of operations in Excel follows these steps:

1. Parentheses: Expressions within parentheses are calculated first, so if you have a formula that uses parentheses, Excel will perform the calculations inside the parentheses first.
2. Exponents: Exponents (numbers raised to a power) are calculated next.
3. Multiplication and Division: Next, Excel performs any multiplication and division from left to right in the formula.
4. Addition and Subtraction: Lastly, Excel performs any addition and subtraction from left to right in the formula.

For example, if you have a formula =2+3*4 in excel

First, the multiplication of 3 and 4 is done to get 12Next, the addition of 2 and 12 is done to get 14

4. What, according to you, are the top 5 functions in excel and write a basic syntax

for any of two?

Ans. Excel has a wide range of functions that can be used to perform a variety of calculations and operations. The top 5 functions in Excel can vary depending on the specific needs and use case, However here are some of the most popular and widely used functions in Excel:

1.SUM: This function adds up the values in a range of cells. The basic syntax is: =SUM(range of cells) example: =SUM(A1:A5) will give you the total of cells in range A1 to A5.

2.COUNT: This function counts the number of cells that contain a numeric value in a range of cells. The basic syntax is: =COUNT(range of cells) example: =COUNT(A1:A5) will give you the number of cells with a value in the range A1 to A5

3. IF: This function allows you to perform a certain action based on a logical test. The basic syntax is: =IF(logical test, value if true, value if false) example: =IF(A1>5, "greater than 5", "less than or equal to 5") will return "greater than 5" if the value of A1 is greater than 5, or "less than or equal to 5" if the value of A1 is less than or equal to 5.

4. VLOOKUP: This function allows you to search for a specific value in a table and returns a corresponding value from the same row. The basic syntax is: =VLOOKUP(value to look for, range of the table, column number of the value to return, true/false) example: =VLOOKUP(A1,A2:B5,2,False) looks for the value in A1 in the first column of the table A2:B5 and returns the value in the second column in the same row

5. INDEX and MATCH : This function combination allows you to look up a value in a table based on one or more conditions, it's more flexible than VLOOKUP and in some cases more efficient. The basic syntax is =INDEX(array,MATCH(value to look for, range of the table, 0)) example: =INDEX(A1:B5,MATCH(A2,A1:A5,0),2) looks for the value of A2 in column 1 of the table A1:B5 and returns the value in column 2 in the same row.

5. **When would you use the subtotal function?**

Ans. Subtotal function is particularly useful when working with large data sets that have been filtered or sorted.

Here are a few examples of when you might use the SUBTOTAL function in Excel:

1.Data Filtering: When you filter a data set to show only specific rows, you may want to calculate totals or averages that exclude the hidden rows. By using the SUBTOTAL function, you can perform calculations on the visible rows only, without having to manually exclude the hidden rows.

2.Outlines and Grouping: When you group data in Excel, the function can be used to calculate subtotals and grand totals for the groups. This can be useful for quickly creating an organized summary of your data.

3. Dynamic Reports : When you have a report that you want to generate on regular basis, and you expect that the data set might change and/or grow, by using the SUBTOTAL function you can ensure that your calculations are based on the visible data only and not include hidden rows and you can avoid having to update the formulas every time the data changes.

4. Subtotals and Summary Reports: When you have a large data set, and you want to create subtotals and summary reports, the function can be used to quickly calculate subtotals and grand totals for specific sections of your data.

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

Ans. The syntax of the VLOOKUP function in Excel is as follows:

VLOOKUP(lookup_value, table_array, col_index_num, [range_lookup])

"lookup_value" is the value you are looking up in the first column of the table. This can be a reference to a cell or a hard-coded value.

"table_array" is the range of cells that make up the table being searched.

"col_index_num" is the number of the column in the table_array from which the matching value should be returned. This is a relative number, so the first column in the table is 1, the second is 2, and so on.

"[range_lookup]" is an optional argument, it can be either "TRUE" or "FALSE" and specifies whether the function should perform an approximate match or an exact match. If "TRUE" or left blank, an approximate match will be performed, if "FALSE" an exact match will be performed. If an exact match is not found, the function will return #N/A.

Here's an example:

=VLOOKUP(A1,A2:B5,2,FALSE)

A1 is the lookup_value that you want to look for,

A2:B5 is the table_array where the function will search for the lookup_value

2 is the col_index_num indicating that it should return the value from the second column of the table_array

The range_lookup is set to "FALSE" indicating that it should be an exact match