Excel Introduction, Basic Excel Functions:-

1. What is the difference between a workbook and a worksheet in Excel.

→ **Workbook:-** A workbook in Excel is a complete excel file that contains one or more worksheets where data is stored, organized. It contains all sheets, charts and data.

Worksheets:- It is a single sheet within a workbook that contains rows, columns and cells that is used to enter store and perform calculations on data.

Workbook	Worksheet
* A workbook is the entire exdlel file.	* Work sheet is a single sheet inside a workbook.
* Saved as .xlsx/.xls	* No file extension
* One or more worksheets	* Rows, columns and cells.
* It is used to organize related data in one file.	* It is used to enter, calculate and analyze data.
* A workbook can be created within a worksheet.	* A workbosheet can be converted into workbook.
* It helps us organize and manage multiple worksheets in a single file.	* Worksheets has a unique name such as sheet1, sheet2 etc.

2) How do you create a basic formula in Excel?

→ Creating a basic formula :-

* Click on the cell where you want the result.

* Type = (equal sign)

* Enter the calculation using formulas and operators.

Ex :-

To add two numbers in cells A1 and A2,

$$= A1 + A2$$

+ → Addition
- → Subtraction
* → Multiplication
/ → Division

} common operators that are used.

Ex :-

* A1 has 10

* A2 has 5

* Type

$$= A1 + A2$$

* Press Enter

* Excel adds the values in A1 and A2 shows 15.

* Uses cell names instead of numbers and use math symbols to calculate.

3) Can you explain how cell referencing works in Excel.

→ Cell referencing in excel is used to identify and refer to a specific cell or range of cells in worksheet while performing calculations using formulas. Each cell reference consists of a column letter and a row number such as A1 or B5.

There are 3 types of cell referencing:-

1) Relative cell reference:- The cell address changes automatically.

2) Absolute cell reference:- The cell address remains fixed.

3) Mixed cell reference:- Either the row or column is fixed.

* It helps in reusing formulas and performing calculations easily in Excell.

Example:-

   If A2 = 1000 (salary)
      B1 = 10% (Tax rate)

formula:-
   = A2 * B1

   Result:- 100·

→ A2 is a relative reference (changes) and B1 is an absolute reference and it remains fixed.

4) What is the purpose of the sum functio
and how do you use it?

→ The sum function in excel is used to
add numbers in one or more cells and
then it returns the total. It helps in
performing quick and accurate calculations
without adding values manually.

* To calculate the total of the given
numbers.

* To save time and reduce calculation
* To handle large amounts of data
easily.

Use:-
*select the cell you want the result to
display.
* Type = sum()
*select the range of cells to add.
*close the bracket and press enter.

Ex:- If cells A1 to A5 contain numbers

  =sum(A1:A5)
     ↓
It gives the total value of all the

values.

5) How do you apply the average function to a range of cells?

- The average function in excell is used to calculate the mean(avg) of numbers in selected range of cells.

→ select the cell where you want the result.

-) Type = average()

-) select the range of cells.

* It saves time and gives accurate results when working with multiple numbers.

Ex:-

	A	B	C	D	E	F
1.	2					
2	4					
3	6					
4	8					
5	10					
6						

Average ⟹ $=avg(A1:A5)$

6) What is relative cell reference and how does it differ from an absolute cell reference.

→ Relative cell reference!-

* It changes automatically when a formula is copied to another cell. It does not use any special symbols.

ex:- A1

If the formula = A1+B1 is copied from C1 +C2 → It becomes = A2+B2.

Absolute cell reference:-

* It remains fixed even when the formula is copied. It uses the dollar sign to lock the row and column.

Ex:- A1

If the formula = A1 + B1 is copied, the references do not change.

Difference:-

* The relative reference adjust automatical while absolute reference stays constant.
* It helps in choosing the correct reference based on the calculations.
* Sometimes when any one of the row or column iis fixed and the value is constant by using relative cell reference may give a wrong result whereas in absolute cell reference the fixed value can be locked and the operations can be still performed.

7) How do you quickly sum a row or column of numbers?

→ Quickly summing a Row/column:-

* select the cell you want the result or total to display.
* click the auto sum() button on home screen.
* Excel automatically selects the range of numbers.
* Press enter to get the total.

Another method of using quickly sum

* By using formula:-
  .select sum() and select the ranges
  of data that is required.
  *select all the cells and press
  enter, (or) use (Alt + =)

8) Explain how to use the autosum
   feature.

-) Autosum is a built in function in
   excel that helps to make calculations
   faster and easier and it also provides
   accurate results.
   * It quickly adds either the row
   data and column data, without the
   formula.

   steps :-
   *select the cell where you want the
   total to appear.
   *click the autosum (∑) button on
   the home or formula bar.
   * It selects the nearby numbers or
   range automatically.
   * check the selected range and
   press enter.

   Ex:- If numbers are in cells A1 to
   A5, clicking autosum will directly
   insert =sum(A1:A5) without manually
   entering it.

9) How do you insert and delete rows and columns in Excel?

→ Inserting Rows and Columns in Excel:-

Insert a row:-
* Select the row number where you want a new row.
* Right click on the row number.
* click insert.
A new row is inserted above the selected row.

Insert a column:-
* Select the column letter (A,B,C) . . .
* Right-click on the column letter.
* click insert.
A new column is inserted to the left of the selected column.

Delete a Row:-
* Select the row number you want to delete.
* Right click and choose delete.
The entire row will be removed.

Delete a Column:-
* Select the column number you want to delete.
* Right click and choose delete.

10) What are some common uses of Excel in a business Environment.

* Excel is widely used in business because its flexible and easy to work with.

1. Data entry and record keeping:-
   * storing employee details, customer lists, attendance etc.

2. Data analysis :-
   * Sorting, filtering and analyzing large datasets.
   * using formulas, pivot-tables and charts to find trends.

3. Financial management:-
   * Budget, profit & loss statements.

4. Reporting & Dashboards:-
   * creating monthly business reports.
   * Visualizing data using charts and graphs.

5. Sales & Marketing analysis :-
   * Tracking sales performance.
   * Analyzing customer behaviour and Results-

6. Project Management:-
   * Task lists, timelines and schedules
   * Tracking project progress and deadlines.