

# Assignment - 1

## Excel. Introduction and Basic Functions.

### 1. Difference. Workbook and Worksheet.

- A workbook is the entire excel file with multiple sheets
- A worksheet is a single page within the workbook used to enter data.
- A workbook can contain many worksheets (sheet 1, sheet 2, etc).
- Worksheets consist of rows and columns forming cells where data is stored.

### 2. Creating a Basic formula

- Formulas start with an equals (=) sign,
- Example:  $=A1+B1$  adds values in A1 and B1
- You can also use subtraction  $=A1-B1$ , multiplication  $=A1*B1$ , division  $=A1/B1$
- formulas automatically update when cell values change.

### 3. Cell Referencing:

- cell referencing uses cell addresses like A1, B5 to calculate values
- Example:  $=A1*B1$  multiple formulas to avoid rewriting values.
- Can be used in multiple formulas to avoid rewriting values.
- Helps create dynamic calculations that update automatically.



#### 4. Sum function & purpose.

- The sum function adds a group of numbers or cells
- example:  $=\text{SUM}(A1:A10)$  totals the range A1 to A10.
- Save time instead of adding each value manually.
- Can be used for rows, columns, or multiple ranges at once (eg,  $=\text{SUM}(A1:A5, C1:C5)$ ).

#### 5. Applying the AVERAGE function.

- AVERAGE Finds the mean value of selected numbers.
- example:  $=\text{AVERAGE}(B1:B10)$
- Useful for marks calculation, business reports, income/expense analysis.
- Ignores blank cells automatically when calculating.

#### 6. Relative vs Absolute Cell Reference.

- Relative Reference: A1 changes when copied  
( $A1 \rightarrow B1 \rightarrow C1$ )
- Absolute Reference:  $\$A\$1$  stay fixed even when copied.
- Use F4 key to quickly convert to an Absolute reference.
- Relative is best for repeated calculations  
absolute for fixed values like tax or GST.



## 7. Quickly Summing a Row or Column.

- Select the cell below or beside a range → Press  $Alt + =$ .
- Excel automatically selects the nearest range to total.
- faster than typing formulas manually.
- Works for both horizontal rows and vertical columns.

## 8) AutoSum Feature.

- Located on the Home / Formulas tab as the  $\Sigma$  symbol.
- Select a cell → click AutoSum → Press Enter.
- Automatically detects number ranges.
- Can be used to apply function like SUM, AVERAGE, COUNT, MIN and MAX.

## 9) Insert & Delete Rows / columns.

- To insert : Right-click row/column header → Insert
- To Delete : Right-click row/column header → Delete
- You can also use : Home Tab → Cells Group → Insert / Delete.
- Insert shifts data down or right; delete shifts data up or left.

## 10) Common Business Uses of Excel.

- Budget planning, expense tracking, and Payroll Calculation.
- Data analysis using charts, graphs, pivot tables.
- Preparing invoices, receipts, and financial reports.
- forecasting performance tracking, and project planning