ASSIGNMENT EXCEL

Question 1: What is the difference between 'Paste' and 'Paste Special' in Excel? Briefly explain with examples.

Answer : **Paste**

- The normal Paste simply inserts everything you copied (values, formulas, formatting, and comments) into the target cell.
- Example: If you copy =A1+B1 from cell C1 and paste it in C2, it will paste the formula, adjusting to the new location (becomes =A2+B2).

Paste Special

- Paste Special gives you more control. It allows you to paste only specific elements like **values, formulas, formats, comments, column widths, or operations (add, subtract, multiply, divide)**.
- Example:
    - If you copy a cell with formula =A1+B1 showing result 10 and use **Paste Special → Values**, only the number **10** is pasted, not the formula.
    - You can also use **Paste Special → Formats** to copy just the cell style (like color, borders, font) without changing the content.

Question 2: Describe the functions and usefulness of 'Freeze Panes' and 'Split Panes' in Excel.

Answer : **Function:**

- Locks (freezes) specific rows or columns so they remain visible while you scroll through the rest of the worksheet.

Usefulness:

- Helps you keep headings or key reference columns always visible, even when working with large datasets.

Split Panes in Excel

Function:

- Divides the worksheet window into **two or four separate panes**, each with its own scroll bar.

Usefulness:

- Allows you to view and compare **different parts of the same worksheet** at the same time.

- Useful for cross-referencing data in large sheets without constantly scrolling back and forth.

Question 3: Explain the difference between inserting a new row and inserting a new column in Excel. Can you insert multiple rows or columns at once?

Answer : **Insert a Row**

- A **new row** is added **horizontally** across the worksheet.
- The new row appears **above the selected row**.

Multiple Rows: Select the number of rows you want → Right-click → Insert.

Insert a Column

- A **new column** is added **vertically** in the worksheet.
- The new column appears **to the left of the selected column**.

Multiple Columns: Select the number of columns you want → Right-click → Insert.

Question 4: What are logical functions in Excel? Provide examples of at least two logical functions and their applications.

Answer : Logical functions in Excel are formulas that test a condition (TRUE/FALSE) and return results based on whether the condition is met. They are mainly used for decision-making in worksheets.

AND Function

- **Syntax:** =AND(condition1, condition2, …)
- **Application:** Returns **TRUE** if all conditions are TRUE, otherwise FALSE.

OR Function

- **Syntax:** =OR(condition1, condition2, …)
- **Application:** Returns **TRUE** if at least one condition is TRUE.

Question 5: Discuss the purpose of 'XLOOKUP' and how it differs from the traditional 'VLOOKUP' function.

Answer : **XLOOKUP**

- Can search **both vertically and horizontally**.
- Can return values from **any direction** (left, right, above, below).
- Defaults to an **exact match**, which avoids mistakes.

- Has an option to show a **custom message** (like “Not Found”) instead of an error.
- More efficient and reliable for large datasets.

VLOOKUP

- Searches **vertically** in the first column of a range.
- Can only return values from a column **to the right** of the lookup column.
- By default, looks for an **approximate match** unless you specify FALSE.
- If the value is not found, it shows an error like #N/A.

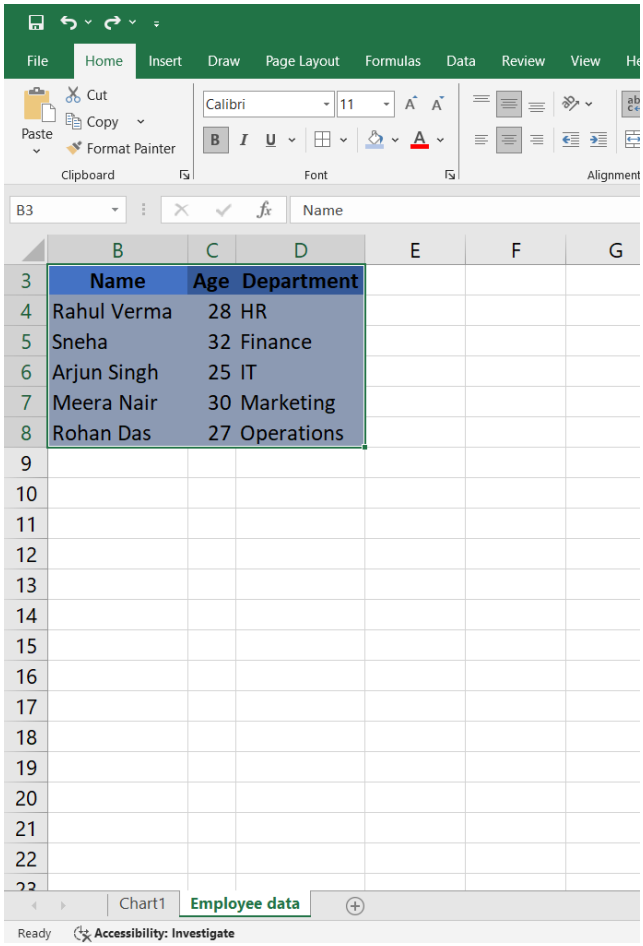
Question 6: Create a worksheet titled 'Employee Data' with columns: Name, Age, Department. Add 5 rows of data. Format as follows:

● Bold and center-align the header row

● Apply a fill color

● Auto-fit column width

Answer :



Question 7: Demonstrate how to insert and delete multiple rows and columns in Excel.

Answer : **Inserting Multiple Rows**

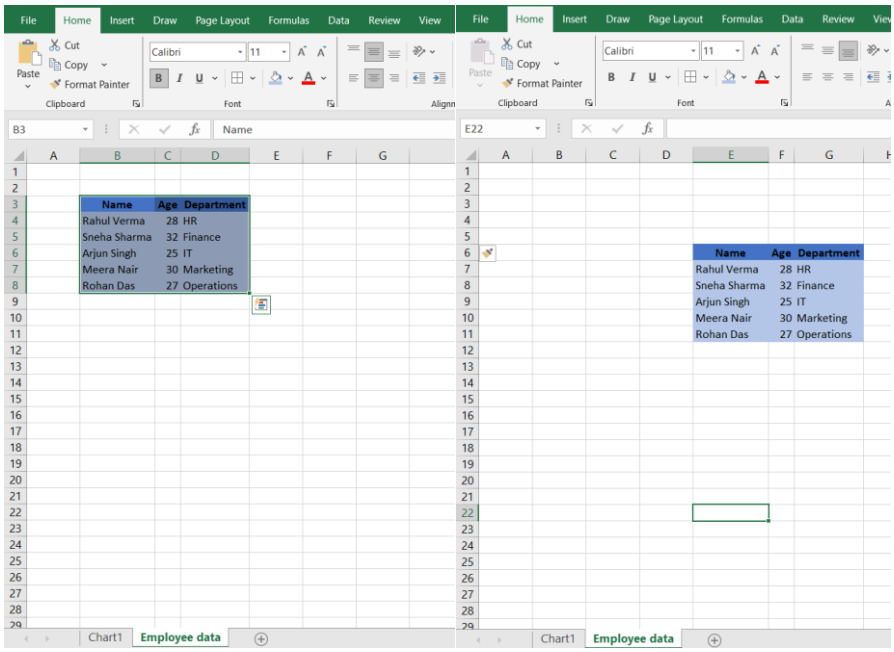
1. Select the number of rows where you want new rows.
    - Example: To insert 3 rows, select **3 existing rows** (say rows 4, 5, 6).
2. Right-click the selection → click **Insert**.
    - Three blank rows will be added **above row 4**.

Shortcut: Select rows → press **Ctrl + Shift + "+"**.

Inserting Multiple Columns

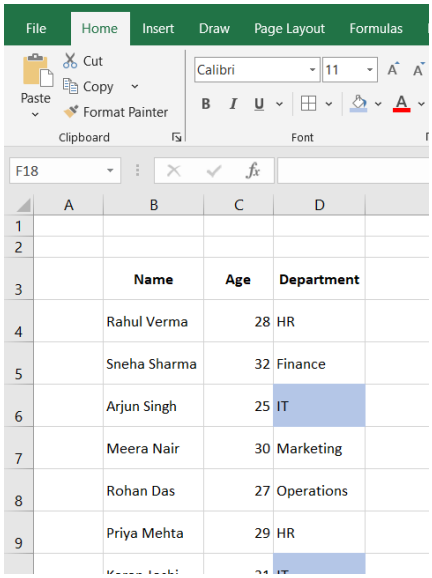
1. Select the number of columns where you want new columns.
    - Example: To insert 2 columns, select **2 existing columns** (say columns B and C).
2. Right-click the selection → click **Insert**.
    - Two blank columns will be added **to the left of column B**.

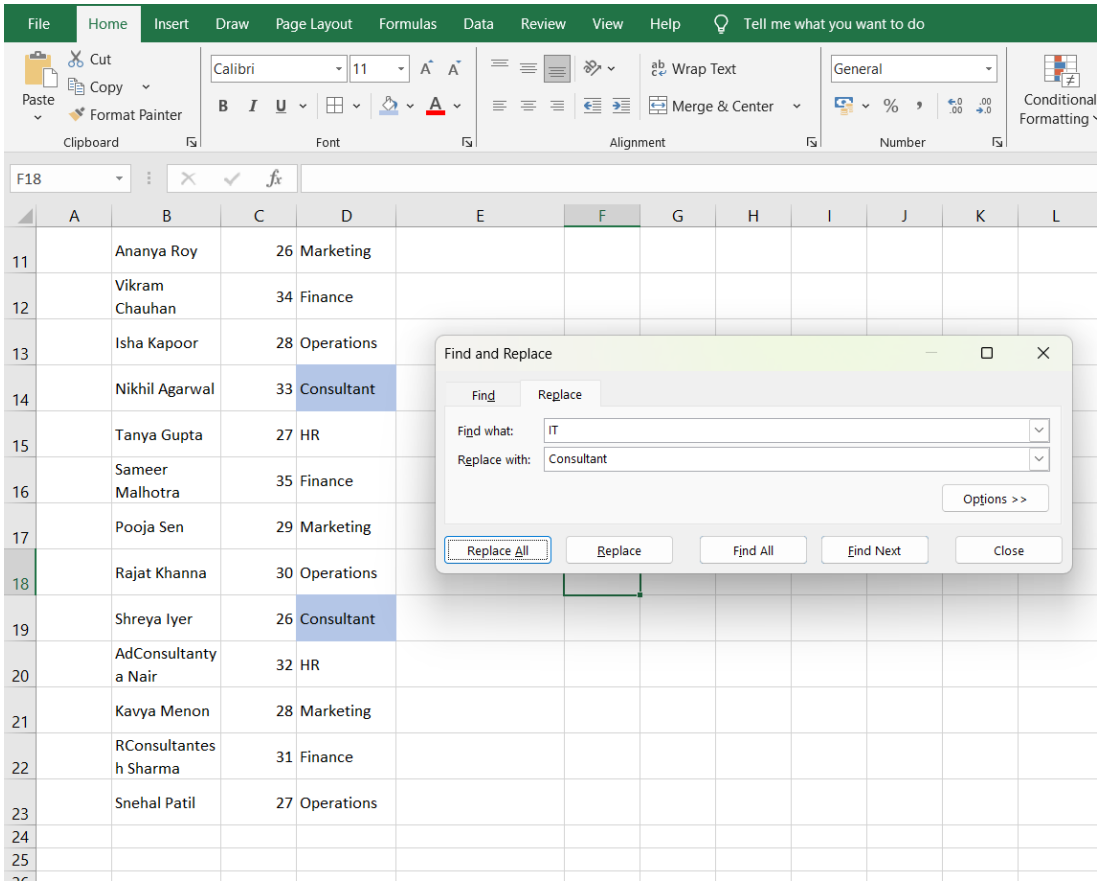
Shortcut: Select columns → press **Ctrl + Shift + "+"**.



Question 8: Use Excel's 'Find and Replace' feature to update department names in a sample table.

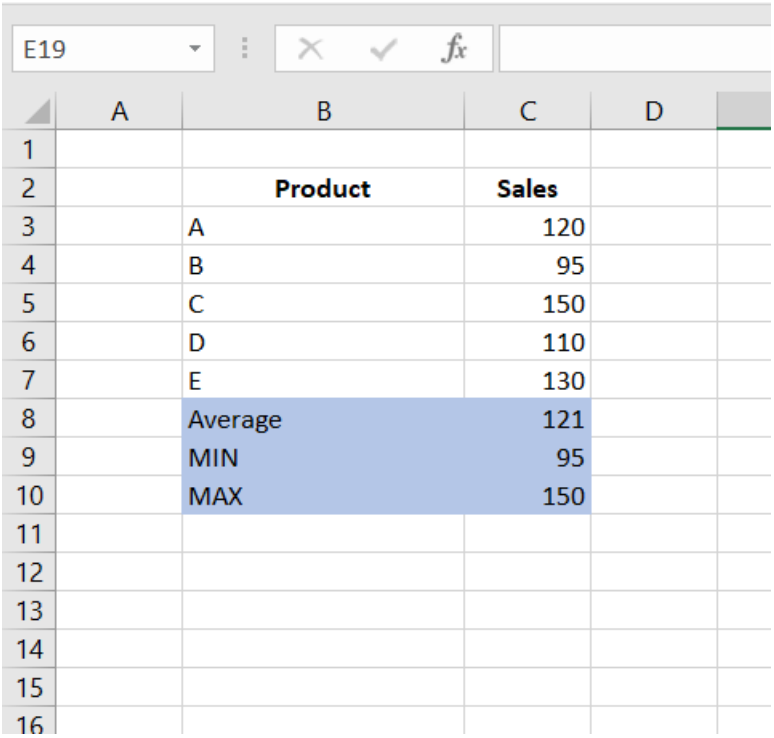
Answer :





Question 9: Create a small numerical dataset and apply the following functions: ● AVERAGE ● MAX ● MIN

Answer :



	A	B	C	D
1				
2		**Product**	**Sales**	
3		A	120	
4		B	95	
5		C	150	
6		D	110	
7		E	130	
8		Average	121	
9		MIN	95	
10		MAX	150	
11				
12				
13				
14				
15				
16				

Question 10: You're working with a dataset that contains missing values. As a Data Scientist, explain how you'd detect and handle missing data using Excel.

Mention tools like:

- Go To Special
- ISBLANK
- COUNTBLANK

Answer: **Using Go To Special**

- Go to **Home → Find & Select → Go To Special → Blanks**.
- This highlights all blank (empty) cells in your dataset at once.
- Useful for quickly locating missing values before cleaning the data.

Using ISBLANK Function

- Formula: =ISBLANK(A2)
- Returns **TRUE** if the cell is empty, otherwise **FALSE**.
- Example: If cell A2 is empty, =ISBLANK(A2) → TRUE.

Using COUNTBLANK Function

- Formula: =COUNTBLANK(B2:B20)
- Counts the number of empty cells in a range.

- Useful to get an overview of how many missing values exist in a column.

Handling Missing Data

1. **Fill with a Value**

- Replace blanks with a default value, like 0, “Unknown”, or the column average.

2. **Delete Rows with Missing Values**

- Select blank cells using **Go To Special → Blanks**, then right-click → Delete → Shift cells up.
- Only use this if removing missing data won’t affect your analysis significantly.

3. **Interpolation / Estimation**

- For numerical data, you can fill missing values using averages of neighboring cells or other statistical methods.