



CLASS - VI COMPUTER SCIENCE NOTES AUGUST

CHAPTER - 4 Formulas and Functions in Excel 2016

A. Tick the correct option.

1. The function which adds values in a cell references in the argument.

(a) Sum

2. An error that occurs when Excel does not recognize text contained within a formula is:

(a) #Name?

3. _____ are pre-designed formulas.

(b) Functions

4. Using more than one operator in a formula is known as _____ formula.

(b) Compound

5. To join together two text values, you use the operator:

(b) &

B. Fill in the blanks:

1. Operators specify the type of operation you want to perform.

2. The procedure of linking text values in a series is called concatenation.

3. You can define a name for a cell range in the Name box.

4. Relative cell reference is a cell reference which is relative to the position of the formula.

5. The keyboard shortcut to Copy a formula is Ctrl + C.

C. Write 'T' for true and 'F' false for the following statements.

1. Formulas are only used to perform simple calculations. T

2. Operators specify the type of operation to be performed. T

3. Formulas are built in functions in MS Excel. T

4. A formula that contains more than one mathematical operation. F

5. Formulas recalculate results automatically if changes are made to the contents of the related cell. F

D. Short answer question.

1. What is a formula?

Answer:

- Formulas are mathematical expressions used to perform calculations.
- A Formula include cell references, letters, numbers, arithmetic operators and parenthesis to perform calculations in a worksheet.

2. Define Cell Range?

Answer:

- Cell Range is a square or rectangular block of two or more cells.
- A Range is represented by the cell addresses of the first cell and it is diagonally opposite to it.

3. What is Cell Referencing?

Answer:

- A Cell Referencing refers to a cell or range of a cells on a worksheet.
- It contains values to be used for the calculations.

4. What is a function?

Answer:

- Functions are special built-in commands that incorporate the formula to perform mathematical calculations.
- It can be used to make complex operations simple.

E. Long answer questions:

1. Why do we use formulas?

Answer:

- Excel formulas enable you to perform calculations such as addition subtraction, multiplication and division.
- We need Excel formulas to perform simple and complex calculations.
- When the formula is typed into a cell, the calculation executes immediately and the formula is visible in the formula bar.

2. Write the steps to name a cell range.

Answer: To name cell range, these steps are used.

- Step1: Select the range of cells you want to name.
- Step2: Right-click on the selected range.
- Step3: Click on Define Name.
- Step4: The New Name dialog box appears.
- Step5: Type the range name in the Name box.
- Step6: Click on OK.

3. Explain the different types of cell referencing by giving appropriate examples.

Answer:

Relative Cell Referencing: It can be defined as a cell reference which is relative to the position of the formula.

For example, Cell D2 references (points to) cell B2 and cell C2. Both references are relative.

	A	B	C	D
1	Product	Quantity	Price	Amount
2	Bread	3	40	=B2*C2
3	Butter	2	50	
4	Cheese	4	100	

Absolute Cell Referencing: It always refers to a specific cell. It does not change when the formula is copied.

For example:

- \$C\$2 is an absolute cell reference to cell C2.
- The table below calculates the total price per stationery of a school in cells D2 to D4 using the absolute reference of cell C2 in the multiplication formula.

C2	X	✓	<i>f_x</i>	=B2*\$C\$2	D2	X	✓	<i>f_x</i>	=B2*\$C\$2
	A	B	C	D		A	B	C	D
1	School Inventory	Quantity	Rate in \$	Total Price in \$	1	School Inventory	Quantity	Rate in \$	Total Price in \$
2	A4 Sheet Bundles	20	20	=B2*\$C\$2	2	A4 Sheet Bundles	20	20	400
3	A5 Sheet Bundles	20		?	3	A5 Sheet Bundles	20		?
4	Chart Papers	100		?	4	Chart Papers	100		?
5					5				

When you copy the formula from cell D2 to cells D3 and D4, the cell reference to C2 remains constant in the formula.

	A	B	C	D	E
1	School Inventory	Quantity	Rate in \$	Total Price in \$	
2	A4 Sheet Bundles	20	20	=B2* \$C\$2	
3	A5 Sheet Bundles	20		=B3* \$C\$2	
4	Chart Papers	100		=B4* \$C\$2	
5					

4. Write the steps to copy, cut and paste formulas in Excel.

Answer:

To perform cut and paste operation

Step: 1 Select the cells you want to move to some other location.

Step: 2 Click on **Home** tab and then on **Cut** button.

Step: 3 Click on **Home** tab and then on **Paste** button.

The Steps to copy a formula,

Step: 1 Click on the cell in which the formula is there

Step: 2 Drag the mouse pointer down on the right corner of the cell

Step: 3 Release the mouse button.

5. Explain any two functions in Excel?

Answer:

Sum Function:

- SUM Function adds the values of the specified cells.
- For example: To find the sum of cells A1 through A100.
- Formula : =SUM(A1:A100)

Average Function:

- Average function finds the average of the specified cells data.
- For example: To find the average of cells B1 through B10.
- Formula : =Average(B1:B10)

6. List the error messages in Excel.

Answer: Some common error messages are,

ERRORS	MEANING
####	Contents of the cell cannot be displayed correctly.
#REF!	Indicates that a formula contains reference to a cell which is not valid.
#NAME?	Excel does not recognize text contained within a formula.
#N/A	Indicates data is not available.
#VALUE!	Indicates the formula contains wrong type of argument.

F. Differentiate between:

1. Basic and Compound formula

Basic formula	Compound formula
<ul style="list-style-type: none"> • Basic formula contains only one mathematical operator. • Example: =A2+A3+A4 is a basic formula as it contains only addition. 	<ul style="list-style-type: none"> • Compound formula contains more than one mathematical operators. • Example: =(A2*A3)+A4 is a compound formula as it contains both addition and

2. Numeric formula and Text formula

Numeric formula	Text formula
<ul style="list-style-type: none">• It consist of numbers that specify the output values are to be combined and the calculations performed to combine them.	<ul style="list-style-type: none">• The text used to convert a numeric value to a text string in a specific format.• Syntax: TEXT(value, format_text)