

CodeAI Plus

Windows 10 with Office 2019

Also compatible with Office 2016



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|-------------------------|----------------------------|
| Artificial Intelligence | Multidisciplinary Approach |
| Animated Life Skills | Subject Integration |
| Coding | Art Integration |
| Computational Thinking | Skill Formation |
| Experiential Learning | Linked with SDGs |



Answer Key

TRIAL TRIVIA

If cells A1 and B1 contain the values 15 and 5 respectively, then evaluate the following formulas and write the result in the given space:

1. $=A1-(-B1)=15-(-5)=20$
2. $=A1+(-B1)=15+(-5)=10$
3. $=2*B1+A1=2*5+15=25$
4. $=A1+A1+B1*A1=15+15+5*15=105$
5. $=A1+B1+10/B1=15+5+10/5=22$
6. $=B1-A1+15>10=5-15+15>10=5>10$

TRIAL TRIVIA

Enter the following data into a worksheet in Excel

CODE	NAME	HRA	BASIC SALARY	TOTAL
101	Divya	6000	45000	51000
102	Shiv	6000	18000	24000
103	Mishika	6000	30000	36000
104	Deepika	6000	20000	26000
TOTAL AMOUNT				137000

SELF-EVALUATION

A. Tick (✓) the correct answer.

1. (b) Formula 2. (b) letter 3. (a) Arguments
4. (b) Data Series 5. (b) Chart Title 6. (b) Pie

B. Write 'T' for True and 'F' for False statements.

- 1. True 2. True 3. True
- 4. False 5. True 6. True

C. Fill in the blanks.

- 1. Constants and formulas 2. formula 3. Parantheses()
- 4. absolute 5. objects 6. Horizontally

D. Differentiate between the following.

1.	Formula Formula is a sequence of values, cell references or operators.	Function Function is a built-in formula which is used to perform a calculation.
2.	Absolute Referencing The cell reference is fixed, and it does not change when we copy a formula to other cells. It is denoted by dollar sign.	Relative Referencing The cell reference is relative to the position of the formula when copied to other cells.

E. Answer in 1-2 sentences.

- 1. Operators are symbols which are used to indicate a type of calculation. It can contain one or more operators.
- 2. The names of four functions of Calc are- AVERAGE, COUNT, MAX, and SUM.
- 3. Every cell in a worksheet has a unique address, called cell reference, which is identified by a specific column letter and row number of that cell.

F. Answer briefly.

- 1. When a formula contains more than one operator, Excel performs the calculations in a specific order according to precedence. The order in which Excel performs operations in formulas is called order of calculation. We can use parentheses () to change the order in which Excel performs calculations. It performs the calculation inside the parentheses first.

2. The steps to edit a formula are:

- (a) Double-click on the cell containing the formula you want to edit.
- (b) Press the Arrow key to move the cursor to the place where we want to remove or add characters.
- (c) To add data where the cursor flashes on a screen, type the data. To delete the data where the cursor flashes, use Backspace or Delete key.
- (d) When we finish making changes to the formula, press the Enter key.

3. Charts are graphical representations of the data. Excel offers a wide selection of charts, which help us to display our data in a pictorial way. Charts help us to make instant decisions based on the comparison of numbers.

The advantages of charts are-

1. Charts displays a lot of information in an easy to understand format.
2. Data and information can be presented in an attractive manner with the help of a chart.

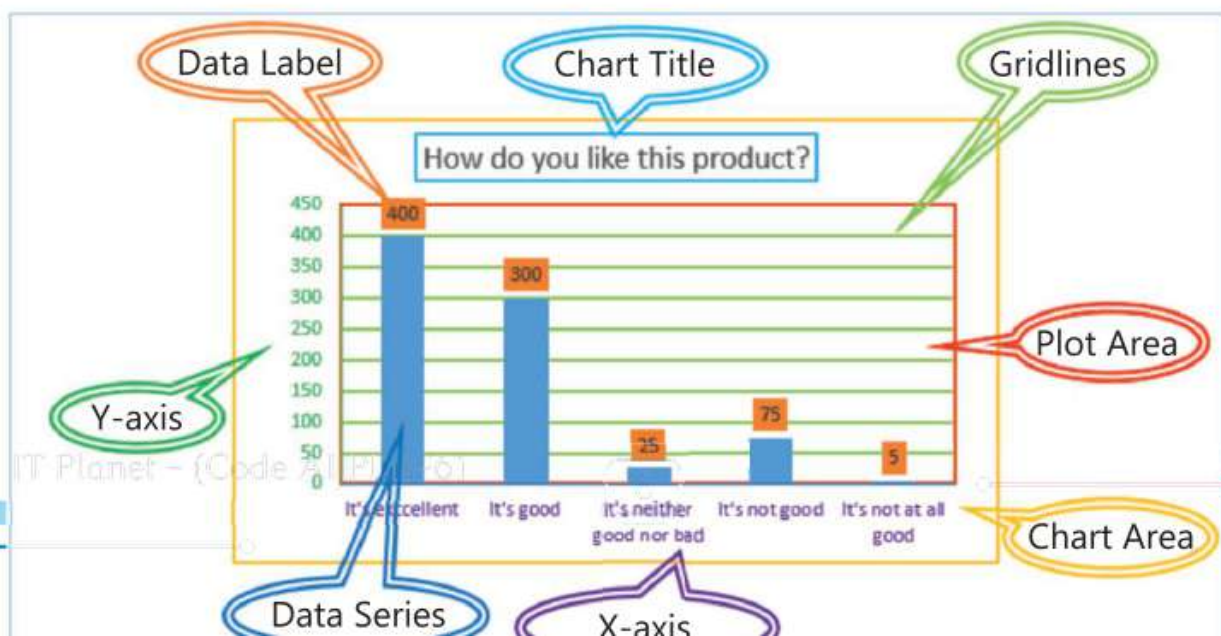
G. Application-based Question.

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ACTIVITY SECTION

ACTIVITY (LABELING)



Chapter – 2 [Excel – Formula and Functions]

Worksheet - 1

Q1. Put your knowledge to the test by choosing the right option:

1. What is the purpose of using formulas in Excel?
 - a. Data organization
 - b. Data visualization
 - c. Solving math problems
 - d. Cell formatting
2. Which operator is used to produce a range from two cell references?
 - a. : (Colon)
 - b. , (Comma)
 - c. ^ (Exponentiation)
 - d. % (Percent)
3. In Excel, what symbol is used to indicate the beginning of a formula?
 - a. +
 - b. =
 - c. :
 - d. ,
4. What do logical operators in Excel return as a result?
 - a. Numeric values
 - b. Text values
 - c. TRUE or FALSE
 - d. Error messages
5. Which function in Excel is used to calculate the average of a range of cells?
 - a. SUM
 - b. MAX
 - c. AVERAGE
 - d. COUNT
6. In a formula, what do parentheses () do?
 - a. Multiply values
 - b. Change the order of calculation
 - c. Create a range
 - d. Divide values
7. What is the purpose of the AND operator in Excel?
 - a. Adds values
 - b. Compares values
 - c. Combines logical expressions
 - d. Divides values

Q2. Write 'T' for true and 'F' for false statements:

1. Arithmetic operators are used to compare two values.
2. The Range operator produces a range by combining two cell references.
3. You can use parentheses in a formula to change the order of calculation.
4. The Comparison operator <> means "equal to" in Excel.
5. A formula in Excel always begins with a plus sign (+).

Chapter – 2 [Calc – Formula and Functions]

Worksheet - 3

Q1. Differentiate between the following.

1. Formulas

Functions

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2. Relative Reference

Absolute Reference

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Q2. Answer the following questions:

1. What is a formula, and how does it differ from a function in Calc?

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2. Explain the concept of cell reference and its types in Calc

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3. What are the different types of reference operators and cell range operators in Calc?

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4. Explain the steps involved in creating a chart in Calc using the Chart Wizard.

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Q3. Application-based questions:

1. Imagine you are tasked with calculating the monthly budget for a household using LibreOffice Calc.

Create a formula that calculates the total expenses, considering different categories such as groceries, utilities, and entertainment.

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2. As a financial analyst, you are analyzing the stock prices of a company over the past six months. Use

sparklines to represent the trend of stock prices in a specific range of cells, providing a visual overview of the stock performance.

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3. You have a financial report with currency values in column C. Change the number format of the entire

column to currency format, ensuring that the financial data is presented appropriately.

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Worksheet – 01

Q1. Put your knowledge to the test by choosing the right option:

1. c 2. a 3. b 4. c 5. c 6. b 7. c

Q2. Write 'T' for true and 'F' for false statements:

1. F 2. F 3. T 4. F 5. F

Worksheet – 02

Q1. Differentiate between the following.

1.

Formulas	Functions
<p>A Formula is a sequence of values, cell references, names of functions or operators that produces a new value from existing values.</p> <p>Formula is also called expression.</p>	<p>A function is a built-in formula that you can use to perform a calculation on the data in your worksheet.</p> <p>Excel offers many functions that you can use to perform various operations on your data.</p>

2.

Relative Reference	Absolute Reference
Excel uses a technique called relative cell referencing. The formula using the relative cell reference adjusts the cell reference as it copies to the destination area.	While copying formulas, if Excel does not change cell references and makes it constant, and Excel uses absolute cell referencing. To specify an absolute cell reference , enter a dollar sign (\$) before any column and row that you want to keep it constant.

Q2. Answer the following questions:

1. A Formula is a sequence of values, cell references, names of functions or operators that produces a new value from existing values. Formula is also called expression.

A function is a built-in formula that you can use to perform a calculation on the data in your worksheet. Excel offers many functions that you can use to perform various operations on your data.

2. Every cell in a worksheet has a unique address, called cell reference which is identified by a column letter and row number of that cell.

The types of cell reference are-

Relative Cell reference, Absolute Cell Reference, and Mixed Reference.

Excel uses a technique called **relative cell referencing**. the formula using the relative cell reference adjusts the cell reference as it copies to the destination area.

Excel uses **absolute cell referencing**. To specify an absolute cell reference in a formula, enter the dollar sign before any column column letter and row number that you want to keep constant in formulas.

A cell reference with only one dollar sign (\$) before either the column or the row is called a **mixed cell reference**.

3. The different types of reference operators are-

Operators	Name	Description
:	Colon	Range operator produces a range from two cell references.
	Space	Intersection operator produces a range, i.e, the intersection of two ranges.
,	Comma	Union operator combines multiple references into one reference.

4. The five components of a chart are-

- a. **Data Series:** It is a group of data from which a chart is derived.
- b. **Data Object:** Charts are made up of a variety of elements called data objects.
- c. **Chart Area:** It is the area where chart components are enclosed.
- d. **Plot Area:** It is the area of a chart where the actual chart is plotted.
- e. **Axes:** The axes have x-axis and y-axis. X-axis is the horizontal axis of the chart, and also known as category axis. Y-axis is vertical axis of the chart, and it is also known as value axis.

Q3. Application-based questions:

Do it by yourself