ORANGE

WORKSHEET ①

Computer
Genius!

Chapter-2

CLASS 6

Name: _____

Roll No: _____

Class: _____ Section: _____ Date: _____

FORMULAS & FUNCTIONS IN EXCEL

A. Give one word for the following:

1. It is used to find the largest value in the given range. ....

2. It is used to check whether the given condition is met, and returns value1 if the condition evaluates to true, and value2 if the condition evaluates to false. ....

3. It is a built-in function that returns the current date. ....

4. It calculates the maximum, minimum, average etc. of a set of numeric data. ....

B. Circle the correct option.

1. Absolute cell references in Excel use the (dollar ($) / equal (=) symbol).

2. Built-in formulas in Excel are called (functions/methods).

3. The (hash / exclamation) sign point separates the worksheet portion of the reference from the cell portion.

4. Formula is visible in the (Status bar / Formula bar) when you select a cell that contains the result of the formula.

5. (Statistical / Mathematical) function calculates the average of a given set of numbers.

C. Write the use of the following functions in Excel:

1. LEN( ) – ....

2. COUNT( ) – ....

3. UPPER( ) – ....

4. SQRT( ) – ....

D. Identify the following icons of Excel:

$$\Sigma$$

1. ....   2. ....

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Chapter-2

CLASS 6

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Class: _____ Section: _____ Date: _____

FORMULAS & FUNCTIONS IN EXCEL

A. Tick (✓) the correct option.

1. Which one of the cell references can be included in relative reference?

   a. A3

   b. A$1

   c. A4

   d. $D6

2. Numbers or text values that do not change are called ....

   a. Function

   b. Constant

   c. Reference

   d. All of these

3. What will be the result of =UPPER("formula")?

   a. Formula

   b. FORMULA

   c. formula

   d. None of these

B. Define the following:

1. SUM() - ....

2. Operators - ....

3. Chart - ....

4. Len(text) - ....

C. Write the formula to:

1. Concatenate the text strings "Touch" and "Pad".

   ....

2. Find the maximum value from the 3, 5, 9, 10, and 13 values.

   ....

3. Find the current day from the date 7/23/2019.

   ....

4. Extract three characters from the right side of the text string "Concatenate".

   ....

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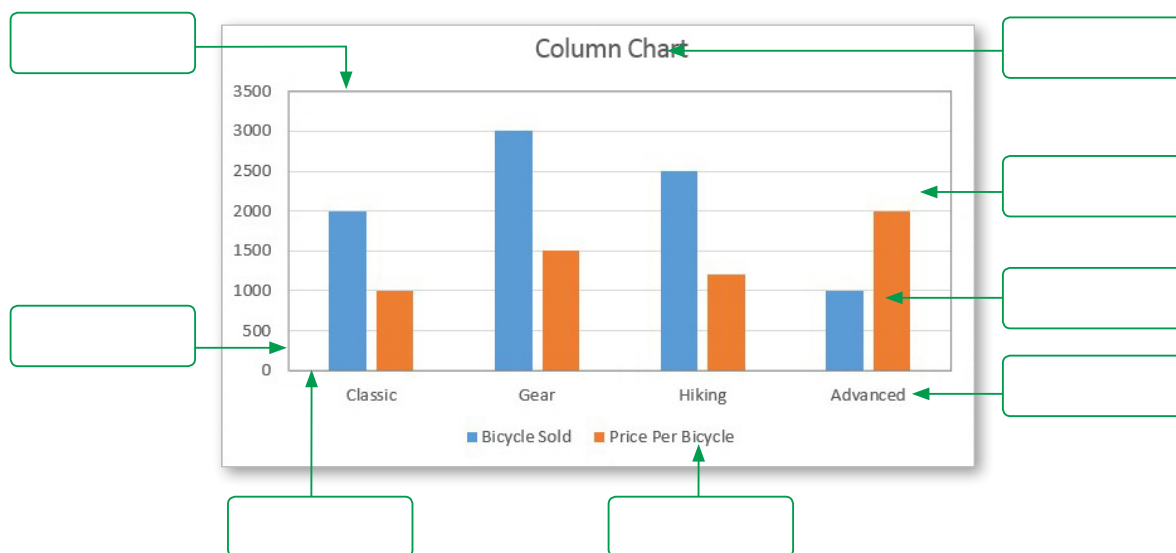
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CHARTS IN EXCEL

A. Give one word for the following:

1. It is related to the set of values.

2. It is a type of chart in Excel that shows the correlation between two sets of values.

3. It is the vertical axis that is used to plot the values in Excel.

4. It is a key which shows the meanings of symbols and colours used in the chart.

5. It can arrange the selected data in either ascending or descending order.

B. Label the components of a chart.

Column Chart

| 3500 |
| 3000 |
| 2500 |
| 2000 |
| 1500 |
| 1000 |
| 500 |
| 0 |

Classic   Gear   Hiking   Advanced

■ Bicycle Sold   ■ Price Per Bicycle

C. Name any four types of charts in Excel. Describe each one of them briefly.

....

....

....

....

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Chapter-3

CLASS 6

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Class: _____ Section: _____ Date: _____

CHARTS IN EXCEL

A. Tick (✓) the correct option.

1. How does a Bar Chart represent data?

   a. Using long rectangular rods placed horizontally ☐

   b. Using textures and pictures to emphasize data ☐

   c. Displaying data in the form of vertical bars ☐

   d. Emphasizing the area between the line and the axis ☐

2. How can you achieve sorting with specific conditions in Excel for multiple columns?

   a. Use the default sorting option ☐

   b. Utilize the Custom Sort feature ☐

   c. Sort each column separately ☐

   d. Combine all columns into one before sorting ☐

B. Define the following:

1. Custom Sort - ....

2. Gridlines - ....

3. Chart - ....

4. Plot Area - ....

C. Number the steps to sort data.

Step ....- Click on Home tab.

Step ....- Select Sort A to Z (for text) or Sort Smallest to Largest (for numbers) to sort the data in ascending order.

Step ....- Select the data to be sorted.

Step ....-Click on the Sort & Filter command.
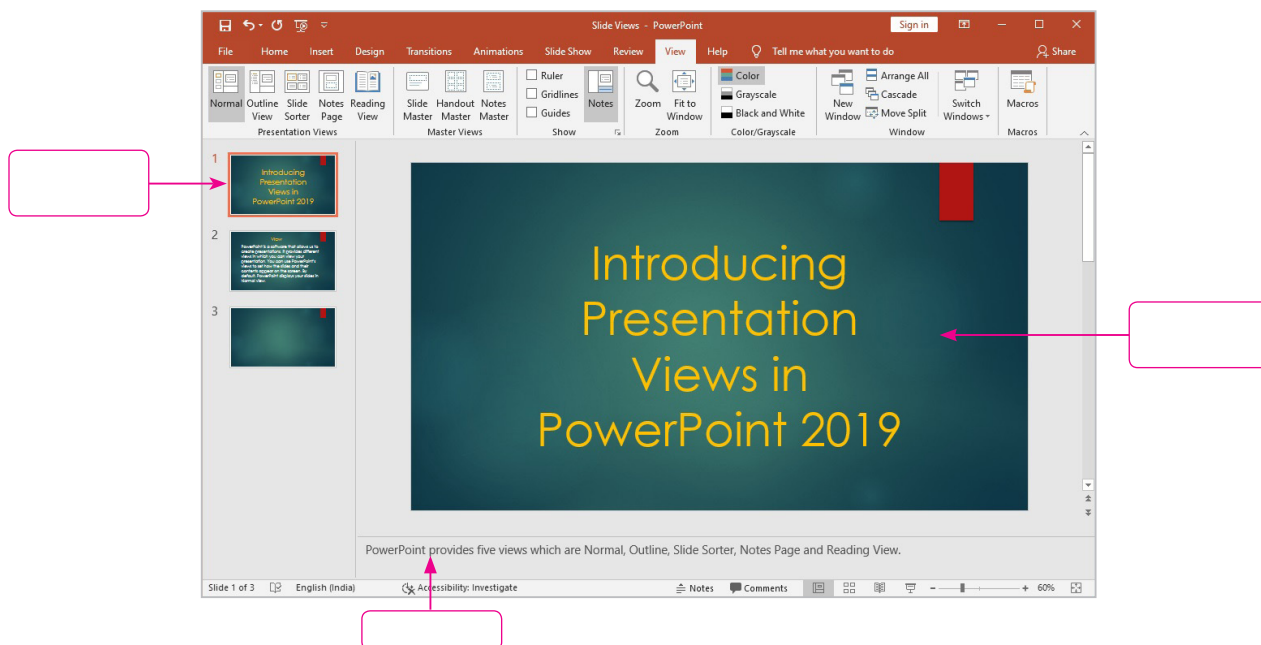
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ADVANCED FEATURES OF POWERPOINT 2016

A. **Identify the Normal view of the presentation and write their names in the boxes given.**

PowerPoint provides five views which are Normal, Outline, Slide Sorter, Notes Page and Reading View.

B. **Write `T' for true and `F' for false.**

1. Presentation can be viewed on full screen mode. ....

2. Video clip once inserted can be deleted by selecting it and pressing Delete key from the keyboard. ....

3. If you select a new animation from the menu in the Animation group, it will not replace the object's current animation. ....

4. We can preview the animation on the current object by clicking on the Preview command from the Preview group under the Animations tab. ....

C. **Answer the following questions:**

1. When is Reading view used?

....

2. Give two ways in which you can preview the effect of animation.

....

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Computer Genius!

Chapter-4

CLASS 6

ADVANCED FEATURES OF POWERPOINT 2016

A. Tick (✓) the correct option.

1. The shortcut key to start the slide show from the current slide is ....

   a. Alt + F5 ☐
   b. Shift + F5 ☐
   c. Shift +F4 ☐
   d. Shift + F3 ☐

2. Slide transition can be defined as .... of one slide after another.

   a. Movement ☐
   b. Deletion ☐
   c. Creation ☐
   d. Transition ☐

3. The purpose of animation is to hold the .... of the audience.

   a. attendance ☐
   b. absence ☐
   c. attention ☐
   d. arrival ☐

4. Which tab allows us to import and use the files or objects from any other application into our presentation?

   a. Home ☐
   b. Insert ☐
   c. View ☐
   d. File ☐

B. Fill in the blanks.

1. When we select the Audio on My PC option, the .... dialog box appears.

2. To add an action button, we need to click on .... command from the Illustrations group.

3. Normal View shows the current slide, the outline and the ....

4. The .... allows you to view and manage all of the effects that are on the current slide.

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Chapter-5

CLASS 6

Name: _____

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Class: _____ Section: _____ Date: _____

ALGORITHM AND PSEUDOCODE

A. Fill in the blanks.

1. A .... is a diagrammatic representation of a step-by-step plan which is followed to solve a problem.

2. .... is the set of rules for writing a programming language.

3. .... has no syntax of any programming language and can be easily understood.

4. The main constructs of pseudocode describe the .... of the algorithm.

B. Write 'T' for true and 'F' for false.

1. Algorithms must be dependent of programming language. ....

2. Programming language are C, C++, Java, JavaScript, R, and Python. ....

3. Language is our primary means of communication for all human interactions. ....

4. Repeat is a conditional statement that can change the flow of an algorithm. ....

C. Answer the following questions:

1. Explain how traffic lights work and how they are controlled by code.

    ....

    ....

2. Why is syntax important in programming languages?

    ....

    ....

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ALGORITHM AND PSEUDOCODE

A. **Tick (✓) the correct option.**

1. How are traffic lights controlled?
   - a. Manually ☐
   - b. By sensors and code ☐
   - c. By remote control ☐
   - d. Through voice commands ☐

2. What is syntax in programming languages?
   - a. A set of rules for grammar ☐
   - b. A type of code ☐
   - c. A programming concept ☐
   - d. A programming language ☐

3. What is coding?
   - a. Solving math problems ☐
   - b. Writing step-by-step instructions for computers ☐
   - c. Controlling traffic lights ☐
   - d. Playing video games ☐

4. What is an algorithm?
   - a. A type of programming language ☐
   - b. A set of instructions to solve a problem ☐
   - c. A method of communication ☐
   - d. A computer hardware component ☐

B. **Answer the following questions:**

1. Describe the role of coding in our daily lives and provide examples.

   ....

   ....

2. Explain the main constructs of pseudocode and provide examples of each.

   ....

   ....

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Chapter-6

CLASS 6

USING MAKECODE ARCADE

A. Tick (✓) the correct option.

1. Which blocks allow you to incorporate music in games?

   a. Array blocks ☐   b. Image blocks ☐

   c. Music blocks ☐   d. Function blocks ☐

2. What do controller blocks allow you to define?

   a. Win conditions ☐   b. Button actions ☐

   c. Animations ☐   d. Dialogue ☐

3. Which blocks allow repetitive code execution?

   a. Variable blocks ☐   b. Logic blocks ☐

   c. Loops blocks ☐   d. Info blocks ☐

4. Where are custom functions defined in MakeCode?

   a. Logic blocks ☐   b. Advanced blocks ☐

   c. Loops blocks ☐   d. Math blocks ☐

5. What do text blocks allow you to generate?

   a. Images ☐   b. Arrays ☐

   c. Strings ☐   d. Buttons ☐

B. Write 'T' for true and 'F' for false.

1. Scene blocks generate text strings for dialogue. ....

2. Info blocks provide animation capabilities. ....

3. Loops blocks execute code repeatedly. ....

4. The share button downloads code to hardware. ....

5. Extension blocks restrict programming capabilities. ....

6. Variable blocks store data during gameplay. ....

7. Console blocks create lists of information. ....

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USING MAKECODE ARCADE

A.   Fill in the blanks.

1.   .... blocks add conditional logic to games.

2.   .... perform mathematical operations in code.

3.   Use .... blocks for sprite creation and definition.

4.   .... blocks change background images and colors.

5.   .... blocks generate text strings and dialogue.

6.   Use .... blocks to create custom functions.

B.   Answer the following questions:

1.   How do loop blocks help in programming games?

   ....

2.   What do variables allow in game programming?

   ....

3.   What do advanced blocks provide in MakeCode?

   ....

4.   Where are custom functions defined in MakeCode?

   ....

5.   How can you debug code in MakeCode Arcade?

   ....

6.   What do text blocks allow you to generate?

   ....

7.   How can you download a MakeCode Arcade game?

   ....

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EXPLORING MATHS WITH CODING

A. Tick (✓) the correct option.

1. How many variables are created to calculate the multiplication of two numbers?

   a. One ☐   b. Two ☐

   c. Three ☐   d. Fourth ☐

2. What category of block is used to take input from the user?

   a. Output ☐   b. Variables ☐

   c. Math ☐   d. Input ☐

3. What type of block is used to perform the multiplication operation?

   a. Conversion ☐   b. Variables ☐

   c. Math ☐   d. Output ☐

4. What is the purpose of the print block in the program?

   a. To prompt the user for input ☐

   b. To display the result ☐

   c. To perform mathematical operations ☐

   d. To create variables ☐

5. What is the formula to calculate the perimeter of a rectangle?

   a. $L + W$ ☐   b. $2L$ ☐

   c. $2(L + W)$ ☐   d. $L \times W$ ☐

B. Answer the following questions:

1. Discuss the importance of coding in solving mathematical problems in AI.

   ....

2. Explain the step-by-step process of creating a program to calculate the multiplication of two numbers in AI Connect.

   ....

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EXPLORING MATHS WITH CODING

A. Write 'T' for true and 'F' for false.

1. BODMAS stands for Brackets of Division, Multiplication, Addition, and Subtraction. ....

2. The perimeter of a rectangle is found by doubling the sum of its length and width. ....

3. Nearly all mathematical problems can be solved using coding blocks in AI Connect. ....

4. The area of a rectangle is calculated by adding its length and width. ....

B. Match the following:

1. Perimeter   a. Allows user input for fencing cost per meter.

2. Total cost of fencing   b. Prompts user input for farm length, stores as integer.

3. Cost per meter   c. Calculates the farm's perimeter based on user-entered length and width.

4. Input is   d. Displays the calculated total cost.

5. Set Length   e. Area to place input blocks for user data collection.

C. Define the following Terms:

1. Define the term coding.

....

....

2. Define the term AI Connect.

....

....

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Chapter-10

CLASS 6

PLOTTING GRAPHS

A. Match the following:

1. Step 1:   a. Attach make plot's title block and add the title of the graph.

2. Step 2:   b. Go to the Variables category and create two variables named x and y.

3. Step 3:   c. Click on "+" in the create list of block and add number values for x and y variables.

4. Step 4:   d. Attach set...to block from Variables category and select x and y variables.

5. Step 5:   e. Attach Plot Xs vs Ys Block from Matplot sub-category and add x and y variables.

6. Step 6:   f. Attach show plot canvas block to display the graph on the stage area. Then click on Run button.

7. Step 7:   g. Attach make plot's x-axis label block and make plot's y-axis label block and add titles for x-axis and y-axis.

B. Short Answer Questions:

1. What is the function of the Title block?

   ....

   ....

2. Name the types of Bar chart.

   ....

   ....

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PLOTTING GRAPHS

A. Give one word for the following:

1. Which type of chart is used to plot a vertical column chart? ....

2. Which block is used to add data and labels to the chart? ....

3. Name one sub-category of the Graph Plot category in AI Connect. ....

4. Which type of chart is suitable for showing trends over time? ....

5. Which type of chart is used to plot data in a circular manner? ....

B. Write 'T' for true and 'F' for false.

1. Graphs are an ineffective way to display data. ....

2. Pie charts are also known as triangular graphs. ....

3. Line charts are primarily used for comparing the distribution of categorical variables. ....

4. Pie charts are not suitable for displaying trends over time. ....

C. Answer the following questions.

1. What is the purpose of a graph?

    ....

    ....

2. What does the Render Chart block do?

    ....

    ....

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Chapter-11

CLASS 6

AI IN REAL WORLD

A. Fill in the blanks.

1. Artificial Intelligence is the process of simulating human .... by machines.

2. The .... block from the Output category displays information based on the condition.

3. Face mask detection robots are used during COVID-19 to detect whether a person is wearing the face .... or not.

4. The Get nose count block is used to detect a person's ....

B. Write 'T' for true and 'F' for false.

1. Artificial Intelligence aims to decrease human functions. ....

2. The "== block" belongs to the Logic category in AI Connect. ....

3. Click on output button to see the output of the program. ....

4. If-do block is used as the sequential block. ....

C. Answer the following questions.

1. Explain one real-world application of Artificial Intelligence.

   ....

   ....

2. How does AI contribute to improving computer functions related to human knowledge?

   ....

   ....

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AI IN REAL WORLD

A. Fill in the blanks.

1. AI stands for ....

2. The Show Image with border block is found in the .... sub-category.

3. Load Image block is used to load .... in AI Connect.

4. An outline appears over the part of the image selected in the coding using the Show Image with .... block.

B. Write 'T' for true and 'F' for false.

1. Face mask detection robots were not utilized during COVID-19.   ....

2. The if-do Block is used for conditional programming in AI Connect.   ....

3. The Get nose count block is used to detect a person's hair.   ....

4. The Print block from the Output category displays information based on the condition.   ....

C. Answer the following questions.

1. What is the primary goal of AI?

    ....

    ....

2. Describe the steps involved in using AI Connect to detect whether a person is wearing a face mask or not.

    ....

    ....

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