

## 1. Categories of Computers and Computer Languages



### Tech Trivia

#### Section A (Objective)

- A. 1. c                      2. c                      3. c                      4. a                      5. a
- B. 1. Minicomputer  
2. Digital  
3. Compiler  
4. Analog  
5. Smartwatch
- C. 1. F                      2. T                      3. F                      4. F                      5. T



### Answer Arcade

#### Section B (Subjective)

- A. 1. An embedded computer is a special type of microprocessor-based computer that is developed for performing a specific task.  
2. Two examples of Hybrid computers are: Electrocardiogram (ECG) machines and Flight simulation systems.  
3. An interpreter is a program that translates and executes code written in a high-level language line by line to machine language.  
4. A general purpose computer can handle different tasks efficiently. Examples include personal computers such as desktops, laptops, etc.  
5. An example of minicomputer is: HP – 3000.
- B. 1. Computers differ in size, processing power and speed. On the basis of these factors, computers can be categorised as follows:  
a. **Microcomputer:** A microcomputer is a computer with a single microprocessor as its main processing unit. It's a compact and affordable digital computer designed for use by one person at a time. Microcomputers are also known as Personal Computers (PC). Some examples: Desktop, Laptop, Tablet.

- b. **Minicomputer:** A minicomputer, or “mini,” is a powerful and costly computer compared to a microcomputer. It can contain one or more microprocessors and is used mainly for scientific and engineering tasks. Minicomputers can support multiple users at once. Some examples: PDP–11, PDP-8, HP-3000.
- c. **Mainframe Computer:** Mainframe computers are very huge, fast, powerful and more expensive than minicomputers. They often have multiple microprocessors and can be so large that they occupy an entire room. These computers are used in large organisations that handle vast amounts of data, like banks. Some examples: IBM zSeries, IBM 4381, ICL 39.
- d. **Supercomputers:** Supercomputers are the largest and fastest type of computers. Some are so big that they occupy an entire floor of a building and are extremely costly. They can handle massive amounts of data at high speeds. Supercomputers are used by large organisations and government agencies for complex tasks like weather forecasting and rocket launches. Some examples: PARAM 8000, Summit, Frontier.
2. A low-level language is machine-dependent programming language. Programs written in a low-level language are designed to run on just one type of computer and are not easily transferred to other types of computer. There are two main categories of low-level languages:
- a. **Machine Language:** This language is the only language understood by the computer. It is also known as First Generation Language (1GL). Machine language is very difficult for programmers to use because it only consists of two digits, 0 and 1, called binary digits or bits, where the bit '0' represents the OFF state and the bit '1' represents the ON state.
- b. **Assembly Language:** To address the challenges of machine language, assembly language was introduced. It is known as a Second-Generation Language (2GL), it uses alphanumeric symbols called 'Mnemonics' rather than just 0s and 1s. In assembly language, programmers use abbreviations like A for addition, C for compare, L for load, and M for multiply.
3. A compiler is a program that converts code from a high-level language into machine language so that the computer can run it. It processes the whole program at once and creates an executable file.
4. The advantages of using high-level languages:
- It is user-friendly.
  - It is similar to the English language, which makes it easier to use.
  - It requires less time to write a program.
  - It is easier to maintain.
  - It is problem-oriented rather than machine-based.
  - It is machine-independent, i.e. programs can run on any computer.
- C. 1. A smartwatch is a wearable computing device that fits on your wrist. It offers the basic functions of a traditional watch and includes advanced features like counting steps and track running distance, mobile apps and the ability to make phone calls.
2. Mainframe computers.



## Higher Order Thinking Skills (HOTS)

1. Because hybrid computer combines the features of both analog and digital computers. It benefits from the speed of analog computers and the precision of digital computers.
2. Machine language is very difficult for programmers to use because it only consists of two digits, 0 and 1, called binary digits or bits, where the bit '0' represents the OFF state and the bit '1' represents the ON state.



### Code Clues

1. Tablet
2. Gaming console
3. PARAM 8000
4. PDA
5. Mainframe computer
6. Embedded computer
7. Digital computer

### Digital Drills



Do it yourself

## 2. File Management—Organisation of Data



### Tech Trivia

#### Section A (Objective)

- |           |                   |      |      |      |      |
|-----------|-------------------|------|------|------|------|
| <b>A.</b> | 1. b              | 2. c | 3. b | 4. b | 5. a |
| <b>B.</b> | 1. File extension |      |      |      |      |
|           | 2. File Explorer  |      |      |      |      |
|           | 3. Question mark  |      |      |      |      |
|           | 4. XLSX           |      |      |      |      |
| <b>C.</b> | 1. T              | 2. F | 3. T | 4. F |      |
| <b>D.</b> | 1. c              | 2. e | 3. d | 4. b | 5. a |





- A.**
1. File Explorer is a tool that helps us manage and organise files and folders.
  2. Two examples of file extensions are: .xlsx and .pptx.
  3. Sorting is the process of arranging files in a specific order. Windows offers features to arrange files in several ways, including by Name, Date, Type, Size, Tags, etc.
  4. PPTX is used for storing presentations in Microsoft PowerPoint. It saves data in slide format, and the file extension is .pptx.
- B.**
1. Copying files or folders create backups, allows sharing without altering the original, and helps in managing them.  
Whether when we move a file or folder from one drive to another, the original file or folder will be removed from the original location and moved to a new location.
  2. The steps to open multiple windows side-by-side are as follows:  
Step 1 Click on the application window you want to arrange.  
Step 2 Hover the mouse pointer over the Maximize button.  
Step 3 Select the layout that best suits your needs from the Snap Layouts pop-up.  
Step 4 Click on the window you want to place next to the first one.  
This will arrange the two windows side-by-side.
  3. The asterisk (\*) is used to replace multiple or none characters in search. It's useful when you want to search for files that share a common part of their name but may have different endings.  
Whether a question mark (?) replaces a single character or symbol. It represents only one character, so it searches for single character.
- C.**
1. To copy files or folders from a pen drive to a computer, follow the given steps:  
Step 1 Click on the notification.  
Step 2 Select the Open folder to view files option.  
Step 3 Click on the file or file/folder which you want to copy.  
Step 4 Click on the Copy command.  
Step 5 Click on the drive in which you want to copy the file/folder.  
Step 6 Click on the Paste command.  
Step 7 Click on the arrow button.  
Step 8 Click on Eject Dual Drive option.
  2. To arrange the files by name, follow the given steps:  
Step 1 Click on the Sort command.  
Step 2 Select the desired option (Name, Date modified, Type, More, Ascending, Descending).  
The files will be arranged as per the chosen option.



## Higher Order Thinking Skills (HOTS)

1. Sorting by Size arranges files based on their size. The files can be ordered from smallest to largest or from largest to smallest.
2. We can use wildcard characters to search for a file on the computer even if we don't know its location or complete name. A wildcard is a special character that is used to represent one or more characters.



### Code Clues

Solve the crossword.

1. MOVING FILES
2. FILE EXPLORER
3. FILE EXTENSIONS
4. WILDCARD
5. ASTERISK
6. SORTING

### Digital Drills



Do it yourself

## 3. Word Processor— Tabular Representation



### Tech Trivia

Section A (Objective)

- |           |                |                |             |                 |      |
|-----------|----------------|----------------|-------------|-----------------|------|
| <b>A.</b> | 1. b           | 2. b           | 3. c        | 4. b            | 5. c |
| <b>B.</b> | 1. Split Cells | 2. Delete Rows | 3. Resizing | 4. Table Design |      |
| <b>C.</b> | 1. F           | 2. F           | 3. T        | 4. F            |      |



### Answer Arcade

Section B (Subjective)

- A.**
1. Table Layout tab is used to align text in a table.
  2. Move the mouse pointer to the left edge of the cell. When the pointer turns into a black right-pointing arrow, click to select the cell.
  3. A table is an arrangement of data in the form of columns and rows. It is useful in enhancing and analysing the data. A table consists of vertical columns and horizontal rows.



- B.**
1. To insert a table, follow the given steps:  
Step 1: Click on Insert tab.  
Step 2: Click on Table drop-down arrow.  
Step 3: Click on the top left corner of the grid and drag the mouse to highlight the number of columns and rows you want in the table.
  2. To insert rows and columns follow these steps:  
Step 1: Click on the row or column where you want to add an additional row, column or cell.  
Step 2: Click on Table Layout tab.  
Step 3: Click on the desired option.
  3. Merging allows the combination of multiple adjacent cells into a single cell within a table. Cells can be merged either row-wise or column-wise.  
Splitting a cell means dividing one cell into two or more cells.
  4. Click on one corner cell of the group, then drag the mouse to include more cells. Release the mouse button when you have selected all the desired cells.
- C.**
1. She can select the entire table by moving the mouse pointer over the table until a table's Move handle appears in the top left corner. Click the table's Move handle to select the entire table.
  2. Priya can adjust column width by dragging borders, using AutoFit Contents, setting a specific width, or selecting Distribute Columns in the Table Layout tab.

## Higher Order Thinking Skills (HOTS)

1. Adding borders and shading makes a table more organized and visually appealing, improving readability. It helps separate data clearly and highlights key information for better understanding.
2. Proper text alignment in a table improves readability, maintains consistency, and enhances presentation. It also optimizes space usage and highlights key information effectively.



## Code Clues

### Rearrange the steps for applying borders to a table.

1. Select the table
2. Click the Table Design tab.
3. Click on down-arrow of the Borders option.
4. Select Borders and Shading.
5. Modify the Style, Color and Width options under the Borders tab.
6. Select the All option.
7. Click on the Shading tab.
8. Click on the down arrow of the Fill option.



9. Choose the colour of your choice.
10. Click on the OK button.

## Digital Drills



Do it yourself

# 4. Word Processor—Mail Merge



## Tech Trivia

Section A (Objective)

- |           |                    |         |         |                |      |
|-----------|--------------------|---------|---------|----------------|------|
| <b>A.</b> | 1. b               | 2. d    | 3. c    | 4. a           | 5. b |
| <b>B.</b> | 1. Merged Document | 2. Main | 3. Time | 4. Data Source |      |
|           | 5. Mail Merge      |         |         |                |      |
| <b>C.</b> | 1. F               | 2. T    | 3. F    | 4. T           | 5. F |



## Answer Arcade

Section B (Subjective)

- A.**
1. The components of Mail Merge are Main Document, Data Source, Merge Fields and Merged Document.
  2. Merge Fields are the placeholders in the main document that are replaced with specific data from the data source. These fields are typically marked with special codes (e.g., <<First\_Name>>).
  3. Merged document is the final product created by combining the main document with the data source. It contains personalised information for each recipient.
- B.**
1. Advantages of using the Mail Merge feature in Word:
    - It saves time and effort.
    - It quickly updates multiple letters with personalised details.
    - It produces thousands of letters efficiently.
  2. Data source is a separate file with all the recipients information. The Data Source for Mail Merge can come from spreadsheets, databases, or email lists, making it easy to personalise messages for many people on different platforms.
  3. The main document is a template that contains the main message and layout, such as a letter.



- C.
- 1 Ravi can use Mail Merge to quickly personalize 100 invitations:
    - Create the Main Document – Type the invitation in Word.
    - Set Up the Data Source – Make a list of guest names in Excel or Word.
    - Link the Data Source – Use the Mailings tab to connect the list.
    - Insert Merge Fields – Add the Guest Name field in the invitation.
    - Preview & Complete – Check the results and merge to print or email.
  2. Priya can use Mail Merge to insert student names and scores correctly:
    - Create the Main Document – Type the feedback letter in Word.
    - Prepare the Data Source – List student names and scores in Excel/Word.
    - Link the Data Source – Connect it via the Mailings tab.
    - Insert Merge Fields – Add Name and Score fields in the letter.
    - Preview & Merge – Check accuracy, then Finish & Merge to generate letters.

### Higher Order Thinking Skills (HOTS)

1. Mail Merge automates personalizing 500 invitations by linking a data source with names to a template, generating customized invitations instantly. This saves time, ensures accuracy, and eliminates manual editing.
2. Mail Merge automates personalization, saving time and reducing errors compared to manual copying and pasting. It ensures accuracy, consistency, and efficiency for large batches of documents.



### Code Clues

**Below are scrambled words related to the Mail Merge process. Unscramble them to find the correct terms:**

1. MERGE FIELD
2. MERGING
3. INVITATION
4. DATA SOURCE
5. COMPONENTS
6. MAIN DOCUMENT

### Digital Drills



Do it yourself





## 5. Presentation— Visual Effects



### Tech Trivia

Section A (Objective)

- |           |            |         |                 |           |      |
|-----------|------------|---------|-----------------|-----------|------|
| <b>A.</b> | 1. c       | 2. b    | 3. b            | 4. d      | 5. d |
| <b>B.</b> | 1. Reading | 2. More | 3. Motion Paths | 4. Insert |      |
| <b>C.</b> | 1. T       | 2. F    | 3. T            | 4. T      |      |



### Answer Arcade

Section B (Subjective)

- A.**
- Slide sorter view shows a thumbnail view of all the slides in your presentation, allowing you to easily rearrange, add, or delete slides.
  - To see a preview of the animation effect you have selected, follow the given steps:
    - Click on Animations tab.
    - Click on the upper part of the Preview command.
  - Animation Pane opens on the right side of the window, displaying the number of text or objects with applied animation effects. In this pane, you can reorder animations, adjust timing, set start options, and modify duration by clicking the down arrow next to each applied animation effect.
- B.**
- To add video to the presentation, follow the given steps:
    - Step 1: Select the slide in which you want to add video.
    - Step 2: Click on the Insert tab.
    - Step 3: Click on Video command.
    - Step 4: Select the This Device option.
    - Step 5: Navigate the location where the video file is stored.
    - Step 6: Select the video file that you want to insert on the slide.
    - Step 7: Click on the Insert button.
  - To add an action button, follow the given steps:
    - Step 1: Click on the Insert tab.
    - Step 2: Click on Shapes button.
    - Step 3: Select the desired action button from the Action Buttons category.
    - Step 4: Drag the mouse pointer on the slide to draw the action button.
    - Step 5: Click on either the Mouse Over or Mouse Click tab.
    - Step 6: Select the desired action.
    - Step 7: Click on OK button to apply your selected action.



3. a. Animations are visual effects added to text and objects on a slide to enhance its appearance. They make the presentation more engaging and can highlight key points. PowerPoint offers various options to set the order and timing of animations to fit your needs.
  - b. Slide transition determines how your presentation moves from one slide to the next. PowerPoint offers a variety of transition effects. The most commonly used slide transitions are displayed as icons under the Transition to This Slide group of the Transitions tab.
- C.**
1. Slide Sorter View
  2. Maya should use the Motion Path animation (specifically the Circle path) to make the planets move in a circular orbit around the sun on her slide.

## Higher Order Thinking Skills (HOTS)

1. The use of media clips and animations enhances a PowerPoint presentation by making it more engaging, interactive, and visually appealing. Animations help emphasize key points, while media clips like images, audio, and videos improve understanding and retention of information.
2. Adding a video to a presentation makes it better by providing a dynamic way to explain concepts, demonstrate processes, or add real-world examples. It captures the audience's attention and makes complex ideas easier to understand. Mail Merge automates personalization, saving time and reducing errors compared to manual copying and pasting. It ensures accuracy, consistency, and efficiency for large batches of documents.



## Code Clues

**Give answer in one word.**

1. Notes
2. Entrance
3. Insert
4. Action Button

## Digital Drills



Do it yourself

## Worksheet 1

(Based on chapters 1 to 5)

- |           |                     |            |
|-----------|---------------------|------------|
| <b>A.</b> | 1. IBM zSeries      | IBM 4381   |
|           | 2. China's Tianhe-2 | PARAM 8000 |



3. Digital cameras                                  Microwaves
  4. Smartphone                                        Smartwatch

**B.**

  1. The process of writing a program is called programming.
  2. A wildcard is a special character that is used to represent one or more characters. Generally, two wildcard characters are commonly used for searching files in a system. These are the asterisk(\*) and question mark (?).
  3. Slide transition determines how your presentation moves from one slide to the next.
  4. Splitting a cell means dividing one cell into two or more cells.
  5. The Mail Merge feature in Word allows you to create personalised letters for multiple recipients quickly, saving time by automatically updating specific information for each person, such as names, addresses, and other details.
  6. Animations are visual effects added to text and objects on a slide to enhance its appearance. They make the presentation more engaging and can highlight key points. PowerPoint offers various options to set the order and timing of animations to fit your needs.

**C.**

1. Tables	Insert
2. Animation	Animations
3. Cell size	Table Layout
4. Merge	Table Layout
5. Start Mail Merge	Mailings

**D.**

  1. Hybrid
  2. Visual Programming Language
  3. Assembler
  4. Wildcard
  5. Table
  6. Data Source
  7. Action Button
  8. Slide Sorter View

# Test Sheet 1

## Section A

## Section B

- A.**
1. A general purpose computer can handle different tasks efficiently. Examples include personal computers such as desktops, laptops, etc.
  2. Two examples of file extensions are: .xlsx and .pptx.
  3. Move the mouse pointer to the left edge of the cell. When the pointer turns into a black right-pointing arrow, click to select the cell.
  4. A table is an arrangement of data in the form of columns and rows. It is useful in enhancing and analysing the data. A table consists of vertical columns and horizontal rows.
  5. The components of Mail Merge are Main Document, Data Source, Merge Fields and Merged Document.
- B.**
1. A low-level language is machine-dependent programming language. Programs written in a low-level language are designed to run on just one type of computer and are not easily transferred to other types of computer. There are two main categories of low-level languages:
    - a. Machine Language: This language is the only language understood by the computer. It is also known as First Generation Language (1GL). Machine language is very difficult for programmers to use because it only consists of two digits, 0 and 1, called binary digits or bits, where the bit '0' represents the OFF state and the bit '1' represents the ON state.
    - b. Assembly Language: To address the challenges of machine language, assembly language was introduced. It is known as a Second-Generation Language (2GL), it uses alphanumeric symbols called 'Mnemonics' rather than just 0s and 1s. In assembly language, programmers use abbreviations like A for addition, C for compare, L for load, and M for multiply.
  2. The asterisk (\*) is used to replace multiple or none characters in search. It's useful when you want to search for files that share a common part of their name but may have different endings.

Whether a question mark (?) replaces a single character or symbol. It represents only one character, so it searches for single character.
  3. To insert rows and columns follow these steps:

Step 1: Click on the row or column where you want to add an additional row, column or cell.

Step 2: Click on Table Layout tab.

Step 3: Click on the desired option.
  4. Click on one corner cell of the group, then drag the mouse to include more cells. Release the mouse button when you have selected all the desired cells.
  5. Data source is a separate file with all the recipients information. The Data Source for Mail Merge can come from spreadsheets, databases, or email lists, making it easy to personalise messages for many people on different platforms.



## 6. Scratch Programming— Game Creation



### Tech Trivia

#### Section A (Objective)

- |           |            |            |          |           |             |
|-----------|------------|------------|----------|-----------|-------------|
| <b>A.</b> | 1. c       | 2. b       | 3. c     | 4. b      |             |
| <b>B.</b> | 1. Sound   | 2. Upwords | 3. Size  | 4. Pen    | 5. Polygons |
| <b>C.</b> | 1. T       | 2. T       | 3. F     | 4. F      | 5. T        |
| <b>D.</b> | 1. Control | 2. Motion  | 3. Looks | 4. Events |             |



### Answer Arcade

#### Section B (Subjective)

- A.**
- Title Bar is located at the top of the Scratch window. This displays the Scratch version on the left and includes control buttons (Minimize, Maximize/Restore Down, Close) on the right.
  - To paint a new sprite, follow the given steps:  
Step 1: Hover the mouse over Choose a Sprite button.  
Step 2: Select Paint option.  
Step 3: Use the different drawing tools to draw your own Sprite.
  - To create a pattern in Scratch, you can use the Stamp block, which is found in the Pen blocks menu. This block allows you to duplicate the current image of the Sprite and place it onto the stage at the Sprite's current location.
- B.**
- if...then...else: This block runs the commands inside the "Then" section if the condition is true. If the condition is false, it executes the commands in the "Else" section instead.
  - To draw a hexagon, follow the given steps in Scratch:  
Step 1: Add the Pen extension from "Add Extension".  
Step 2: Use the following blocks:
    - "When Green Flag Clicked" → "Pen Down"
    - "Repeat 6" → "Move 100 Steps" → "Turn 60 Degrees"
    - "Pen Up" (after loop)Step 3: Click Green Flag to draw the hexagon!
  - The Pen blocks are green colour-code blocks and are used to draw lines or trails as the Sprite moves around the stage. These blocks allow you to create visual effects, such as drawing shapes, patterns, or even simple animations. You can also change the colour of the pen to customise the trail it leaves behind.
- C.**
- The steps that Monisha should take are as follows:  
Step 1: Open Scratch and select or add a sprite.  
Step 2: Go to the Code tab and add:



- “When Green Flag Clicked” (from Events).
- “Say [Hello!] for [2] seconds” (from Looks) to make the sprite speak.

Step 3: Click the Green Flag to see the animation.

- To draw a circle in Scratch using the Repeat block, the sprite moves forward by a small step and turns slightly in each loop cycle. By setting the Repeat block to 36 and using “Move 10 Steps” with “Turn 10 Degrees,” the sprite completes a full circular path (360°). Adding the Pen Extension allows the sprite to draw as it moves.

Changing the Move value affects the circle’s size—increasing it makes a larger circle, while decreasing it results in a smaller one.

## Higher Order Thinking Skills (HOTS)

- To calculate the angle to turn when drawing a polygon in Scratch, use the formula:

Turning angle =  $360^\circ / \text{Number of Sides}$

For a 5-sided polygon (pentagon):

$$\begin{aligned} \text{Turning angle} &= 360^\circ / 5 \\ &= 72^\circ \end{aligned}$$

So, in Scratch, the sprite should turn 72° after drawing each side to complete the pentagon.

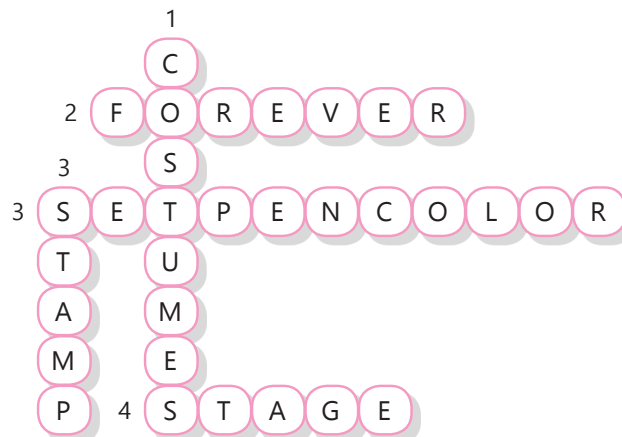
- If you want to repeat a set of actions more than once, you would either have to run the code again or write the script again. But in Scratch, you can save time and effort by repeating the code without needing to rewrite or rerun the program. This automatic repetition of instructions is known as looping. You can find blocks for looping in the Control category in Scratch.

The repeat, repeat until and forever block can be used for looping.



## Code Clues

Solve the crossword using the given clues.





## 7. HTML— An Introduction



### Tech Trivia

#### Section A (Objective)

- |           |           |           |        |        |              |
|-----------|-----------|-----------|--------|--------|--------------|
| <b>A.</b> | 1. a      | 2. c      | 3. d   | 4. b   | 5. b         |
| <b>B.</b> | 1. Markup | 2. <head> | 3. <b> | 4. <p> | 5. Font-size |
| <b>C.</b> | 1. F      | 2. F      | 3. T   | 4. F   | 5. T         |



### Answer Arcade

#### Section B (Subjective)

- A.**
- HTML stands for Hypertext Markup Language. It is a markup language that describes the structure of the web page. It allows us to create web pages that contain paragraphs, headings, links and block quotes.
  - The tags that have both opening and closing tags are called Container Tags.  
For example <B> ..... </B>  
<HEAD> ..... </HEAD>
  - ```
body {
    background-image: url("tree.jpg");
}
```
- B.**
- The <html> tag tells the web browser that the text contained between <html> and </html> is a web page and can be viewed using a web browser (Google Chrome, Microsoft Edge, Mozilla Firefox, etc.). Every web page coding must start with the <html> tag and end with the </html> tag.  
The <body> tag specifies the main content of the web page. The text and other elements contained between <body> and </body> tags are displayed on the web page. It is a container tag.
  - There are certain rules for writing HTML5 codes. Let us learn more about them:
    - Container tags should always be closed properly.
    - Values given to the attributes should be enclosed within double quotes.
    - The tag name should not contain spaces.
    - There should be no spaces between < and > in a tag.
    - Tags must be nested correctly using the LIFO principle.



3. The `<BR>` tag is used to insert a line break, moving text or content to the next line. It is a self-closing tag and does not require an ending tag. For example, `Hello<BR>World` will display as:

Hello

World

On the other hand, the `<HR>` tag is used to create a horizontal line across the webpage, often used to separate sections of content. It is also a self-closing tag. For example, `Hello<HR>World` will display as:

Hello

---

World

4. By using CSS, you can change the font face, colour, style and size.  
Few font properties are font-family, font-size, font-style and font-weight.

- C.** 1. **ALIGN Attribute:** Used within tags like `<p>` or `<img>` to align content (e.g., `<p align="center">`).

**CENTER Tag:** A block-level tag (`<CENTER>`) that centers content but is deprecated in modern HTML.

**Similarities:** Both align text or elements.

**Differences:** ALIGN is an attribute, CENTER is a tag (now obsolete).

2. Follow these steps to edit an HTML document:

Step 1: Right-click on the HTML file.

Step 2: Click on the Open with option.

Step 3: Click on Notepad.

This will open your HTML document in Notepad so that you can make changes to the file. After making the required changes, you need to save the file by pressing the Ctrl+S keys.

## Higher Order Thinking Skills (HOTS)

1. Block-level Tags:

- `<P>` – Defines a paragraph, starts on a new line.
- `<H2>` – Creates a heading, takes full width.
- `<HR>` – Inserts a horizontal line, spans full width.

Text-level Tags:

- `<SUB>` – Formats text as subscript within a line.
- `<B>` – Makes text bold without breaking the line.

2. A Text Editor (e.g., Notepad, VS Code) is used to write and edit the HTML code, while Microsoft Edge (a web browser) is used to view and interpret the HTML file as a webpage.







## Code Clues

Name the tag that can be used:

1. <HR>
2. <BR>
3. <HTML>
4. <BODY>
5. <H1>

## Digital Drills



Do it yourself

# 8. Online Surfing and Cyber Security



## Tech Trivia

### Section A (Objective)

- |           |                       |                 |             |      |      |
|-----------|-----------------------|-----------------|-------------|------|------|
| <b>A.</b> | 1. c                  | 2. b            | 3. c        | 4. c | 5. b |
| <b>B.</b> | 1. Video conferencing | 2. Geographical | 3. Shouting |      |      |
|           | 4. Cybercrime         | 5. Cloning      |             |      |      |
| <b>C.</b> | 1. T                  | 2. F            | 3. F        | 4. T |      |



## Answer Arcade

### Section B (Subjective)

- A.**
1. Computer hacking involves altering computer hardware and software to achieve goals beyond their original design. Individuals who engage in this practice are often referred to as hackers.
  2. Phreaking targets telephone companies using computers to achieve goals such as making free long-distance calls, impersonating directory assistance or other operator services, diverting calls to the perpetrator's chosen numbers, or tapping phone lines.
  3. Some key guideline of netiquettes are:
    - Be Respectful: Treat others the way you want to be treated. Be kind in your messages and comments.
    - Think Before You Post: Before sharing something online, ask yourself if it is appropriate and how it might affect others. Once something is posted, it is hard to take it back.



4. A newsgroup is a type of discussion group focused on a specific topic of interest to all participants. A person known as the News Admin typically manages the newsgroup.
- B.**
  1. Video conferencing is a very helpful tool. It allows people in different places to meet face-to-face. It has improved e-learning by letting teachers in cities share their lessons with students in far-off areas. In healthcare, doctors can guide surgeries happening in other hospitals without being there in person.
  2. VoIP offers many advantages, such as:
    - Low operational costs.
    - Reduced communication and infrastructure expenses.
  3. The importance of cybersecurity in today's digital age is to protect computer resources, including networks, devices, programs, and data, from unauthorized access, damage, or attacks. It helps safeguard confidential data and privacy, prevents theft or disruption of systems, and addresses the growing risks posed by factors such as increased Internet usage, lack of awareness, software loopholes, and untrained users.
  4. When using Internet services, it's important to follow these key guidelines to stay safe:
    - Never share personal information like your address, phone number, or school details.
    - Always keep your browser's privacy settings turned on.
    - Use the Internet only when your elders are present.
    - Keep your passwords private, except with your parents or teachers.
- C.**
  1. To use video conferencing, you need an internet connection, a webcam, and a microphone connected to your computer or laptop. He should install the app like Zoom or Google Meet, check his settings, join the meeting using the provided link, and follow proper etiquette.
  2. I would suggest cloud storage (e.g., Google Drive, Dropbox, or OneDrive) because it allows Ananya's family to store important photos and documents securely and access them from anywhere using the internet.

## Higher Order Thinking Skills (HOTS)

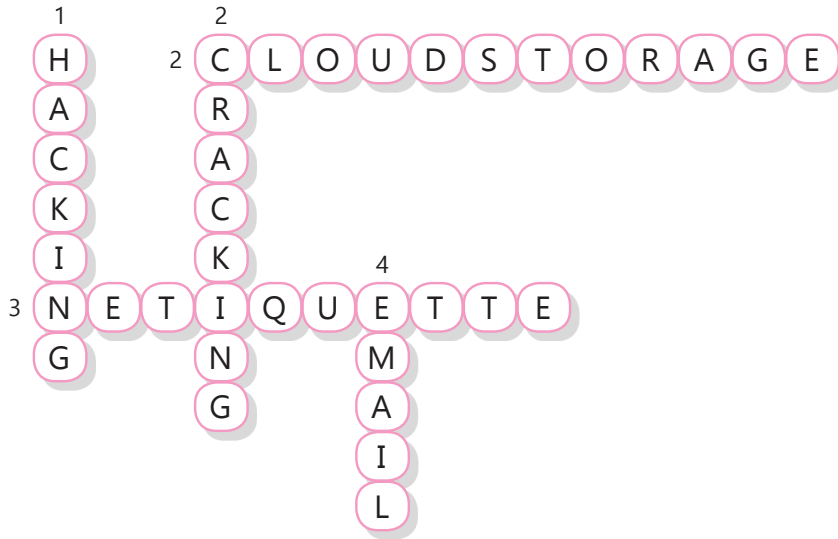
1. Technology has improved a lot over the years. Now, you can easily transfer money online from one bank account to another. In the past, if cheques were damaged, lost, or torn, it took a long time to fix the problem because a new cheque had to be written. With online banking, you can quickly transfer money using a computer, laptop, or smartphone. It's simple and saves a lot of time!
2. A social networking service is an online platform that enables individuals with similar interests or activities to connect and interact. It allows users to share thoughts, ideas, and suggestions, as well as multimedia content such as audio, video, and images, with friends and contacts. Additionally, many social networking sites offer features that enable users to create and join groups based on shared interests.





## Code Clues

Solve the crossword.



### Digital Drills



Do it yourself

## 9. E-mail- An Introduction



### Tech Trivia

Section A (Objective)

- |           |               |                 |          |           |      |
|-----------|---------------|-----------------|----------|-----------|------|
| <b>A.</b> | 1. c          | 2. b            | 3. c     | 4. c      | 5. d |
| <b>B.</b> | 1. Yahoo Mail | 2. Verification | 3. Inbox | 4. Facial |      |
| <b>C.</b> | 1. F          | 2. T            | 3. T     | 4. F      | 5. F |



### Answer Arcade

Section B (Subjective)

- A.** 1. Logging In, or login, is the process of accessing your e-mail account by entering your username and password.



2. Cc: Stands for carbon copy. Use this field to include others who should be informed that the e-mail was sent to the main recipient listed in the "To" field.  
Bcc: Stands for blind carbon copy. Use this field to add recipients who will receive the e-mail without other recipients seeing their addresses.
3. Outbox is the folder where outgoing e-mails are temporarily stored. The Outbox folder will empty once all the e-mails have been successfully sent.

**B.**

1. E-mail offers several features, including:
  - The ability to attach files to your messages.
  - The ability to store information like messages and contact lists.
  - The ability to send Multipurpose Internet Mail Extension (MIME) type files.
2. In e-mail communication, people are not face-to-face, so facial expressions cannot be conveyed. To overcome this, emoticons were introduced. Emoticons represent your facial expressions and help convey your mood to others, as well as saving typing time. The term "emoticon" stands for emotion icon. Some commonly used emoticons are: :) Happy , :( Sad , =O Surprised ,:O Shouting,etc.
3. To send and receive e-mails, you need an electronic address, known as an e-mail address. To send and receive emails, you need a unique email address, consisting of a username and a domain name, separated by the @ symbol. The username is unique to each user, while the domain name is shared by users on the same server (e.g., orangeeducation123@gmail.com).

**C.**

1. The steps that Maya should follow are as follows:
 

Step 1: Type 'www.gmail. com' in address bar of the browser.

Step 2: Select the Create account option.

Step 3: If you want to create an e-mail for personal use, click on For my personal use option or for business purposes, click on For work or my business option.

Step 4: Type your name and click on Next button.

Step 5: Enter your date of birth and gender and click on Next button.

Step 6: Choose your Gmail address or create your own e-mail address and click on Next button.

Step 7: Type a password and click on Next button.

Step 8: Enter your parent's mobile number (after taking their permission) and click on Next button.

Step 9: Enter verification code received on the mobile number and click on Next button.

Step 10: Enter the e-mail address that will help you to recover your password if you forget it and then click on Next button.

Step 11: Review your account info and click on Next button.

Step 12: Read the privacy and terms carefully. Then click on the I agree button.
2. Sudhir should Logout his e-mail account after checking the mails.



## Higher Order Thinking Skills (HOTS)

1. The use of acronyms in email communication saves time by shortening commonly used phrases (e.g., BRB for "Be Right Back" or FYI for "For Your Information"), making messages quicker to type and read.

However, this can sometimes lead to misunderstandings, especially if the recipient is unfamiliar with certain acronyms or interprets them differently. This may cause confusion or miscommunication, particularly in formal or professional settings where clarity is essential.

2. E-mail offers several advantages, including:
  - You can send an e-mail anytime and from anywhere in the world.
  - E-mails can be sent to multiple recipients at once.
  - E-mails can be easily forwarded to others without retyping.
  - Sending an email is much quicker than sending traditional mail (letters or packages sent through the postal service).
  - If an e-mail fails to reach its destination, the mail server automatically attempts to resend it.
  - If an e-mail is not delivered, you receive an e-mail explaining the reason why the e-mail was not delivered.



## Code Clues

Decode the following acronyms:

1. Laughing Out Loud
2. By the Way
3. See You Later
4. Fine
5. Great

## Digital Drills



Do it yourself

# 10. More on Internet



## Tech Trivia

Section A (Objective)

- |           |          |               |            |                    |      |
|-----------|----------|---------------|------------|--------------------|------|
| <b>A.</b> | 1. d     | 2. b          | 3. c       | 4. b               | 5. b |
| <b>B.</b> | 1. Gmail | 2. Podcasting | 3. Reverse | 4. Online Shopping |      |



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



## Answer Arcade

### Section B (Subjective)

- A.**
1. Cloud storage lets us upload, organise, and share data from anywhere Google Drive is a widely used cloud storage service. It lets you create, edit, and save documents, spreadsheets, and presentations.
  2. Two modes of payment are as follows:
    - Debit or Credit Card
    - Net Banking
  3. E-commerce, or electronic commerce, refers to the process of buying and selling goods or services online. It allows you to shop for products and services from home and enables people to do transactions comfortably.
  4. A blogger is a person who writes blogs, and the act of writing them is known as blogging.
- B.**
1. To upload a file to google drive, follow these steps:  
Step 1: Click on the New button.  
Step 2: Select the File upload option to upload a file.  
Step 3: Navigate to the file's storage location.  
Step 4: Select the file that you want to upload.  
Step 5: Click on the Open button.  
Google Drive will successfully upload the selected file and display it as a thumbnail under the My Drive section.
  2. Advantages of E-commerce  
E-commerce has several advantages. Some of these are:
    - It enables us to sell or purchase products and services both nationally and globally.
    - It offers a broad range of products to choose from.
    - It saves both money and time.
    - It allows us to shop for products and services any time and from anywhere.Disadvantages of E-commerce  
E-commerce provides several advantages, but it also has some disadvantages which are as follows:
    - Uncertainty about the quality of products.
    - There is a high risk of online fraud.
  3. A blog is a website that provides information on a specific topic, displaying posts in reverse chronological order. Originally text-based, modern blogs now include images, audio, and video. Popular types include Lifestyle, Food, Tech, Parenting, Finance, Books, Entertainment, Fitness, and Personal Development blogs. Each blog focuses on a niche, such as recipes, gadgets, self-improvement, or reviews.



- C.
1. Raj can publish his article on popular platforms for creating blogs like Blogger, WordPress, Wix and Tumblr.
  2. Meera can use cloud storage services like Google Drive, OneDrive, or Dropbox to safely store her practice videos online. This allows her to access them from any device with an internet connection, eliminating the need for extra storage devices like USB drives.

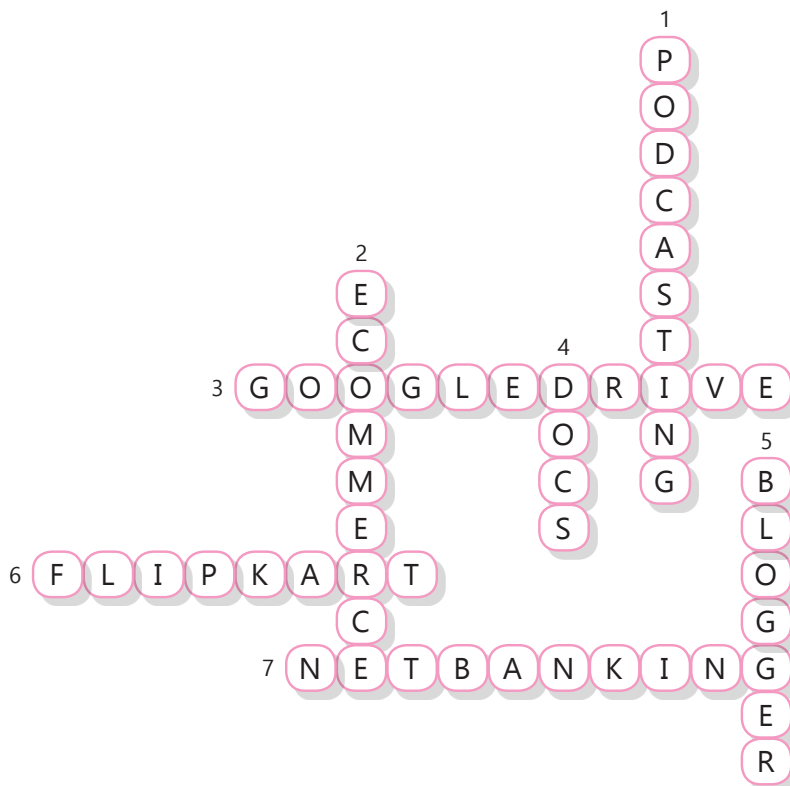
### Higher Order Thinking Skills (HOTS)

1. Cloud storage is essential for businesses and individuals as it provides secure, accessible, and cost-effective data storage. It allows anywhere access, easy file sharing, and automatic backups, reducing the risk of data loss. Additionally, it offers scalability and disaster recovery, ensuring data remains safe even during device failures or cyberattacks.
2. E-commerce impacts traditional shopping by offering convenience, variety, and competitive pricing, reducing the need for physical store visits. It allows 24/7 shopping, home delivery, and easy price comparisons. However, it challenges traditional stores by reducing foot traffic and increasing competition, pushing them to adopt online sales and digital marketing strategies.



### Code Clues

Solve the crossword.





Do it yourself

## Worksheet 2

(Based on chapters 6 to 10)

- A.**
1. A backdrop is the background for the stage in your Scratch project.
  2. An object that appears on the Scratch stage; the default sprite is a "cat."
  3. Emoticons represent your facial expressions and help convey your mood to others, as well as saving typing time.
  4. Netiquette refers to the proper and polite way to communicate online. It's a set of guidelines that helps people behave respectfully when using the internet.
  5. The Green Flag is a button used to start the program or run the script. It is located at the top-right corner of the Scratch editor. When clicked, it triggers all scripts that begin with the "when Green Flag clicked" block, making it essential for running animations, games, and projects smoothly.
- B.**
- |                      |           |
|----------------------|-----------|
| 1. Adobe Dreamweaver | Amaya     |
| 2. <BR>              | <HR>      |
| 3. Facebook          | Instagram |
| 4. Net Banking       | E-wallet  |
- C.**
1. set pen color to
  2. Stamp
  3. Web browser
  4. HTML Element
  5. Attribute
  6. Social Media
  7. Cloud storage
  8. Spam
- D.**
1. Hypertext Markup Language
  2. Standard Generalized Markup Language
  3. Voice over Internet Protocol
  4. One-Time Password
  5. Multipurpose Internet Mail Extension





# Test Sheet 1

(Based on chapters 6 to 10)

## Section A

- A.** 1. b                      2. c                      3. d                      4. b                      5. d  
6. b                      7. d                      8. b
- B.** 1. T                      2. F                      3. F                      4. F                      5. F
- C.** 1. Sounds              2. Markup              3. Geographical  
4. Inbox                5. Online Shopping

## Section B

- A.** 1. Title Bar is located at the top of the Scratch window. This displays the Scratch version on the left and includes control buttons (Minimize, Maximize/Restore Down, Close) on the right.
2. HTML stands for Hypertext Markup Language. It is a markup language that describes the structure of the web page. It allows us to create web pages that contain paragraphs, headings, links and block quotes.
3. Phreaking targets telephone companies using computers to achieve goals such as making free long-distance calls, impersonating directory assistance or other operator services, diverting calls to the perpetrator's chosen numbers, or tapping phone lines.
4. Computer hacking involves altering computer hardware and software to achieve goals beyond their original design. Individuals who engage in this practice are often referred to as hackers.
5. Cc: Stands for carbon copy. Use this field to include others who should be informed that the e-mail was sent to the main recipient listed in the "To" field.
- Bcc: Stands for blind carbon copy. Use this field to add recipients who will receive the e-mail without other recipients seeing their addresses.
6. A blogger is a person who writes blogs, and the act of writing them is known as blogging.
- B.** 1. To draw a hexagon, follow the given steps in Scratch:
- Step 1: Add the Pen extension from "Add Extension".
- Step 2: Use the following blocks:
- "When Green Flag Clicked" → "Pen Down"
  - "Repeat 6" → "Move 100 Steps" → "Turn 60 Degrees"
  - "Pen Up" (after loop)
- Step 3: Click Green Flag to draw the hexagon!
2. The <html> tag tells the web browser that the text contained between <html> and </html> is a web page and can be viewed using a web browser (Google Chrome, Microsoft Edge, Mozilla Firefox, etc.). Every web page coding must start with the <html> tag and end with the </html> tag.
- The <body> tag specifies the main content of the web page. The text and other elements contained between <body> and </body> tags are displayed on the web page. It is a container tag.



3. The <BR> tag is used to insert a line break, moving text or content to the next line. It is a self-closing tag and does not require an ending tag. For example, Hello<BR>World will display as:

Hello

World

On the other hand, the <HR> tag is used to create a horizontal line across the webpage, often used to separate sections of content. It is also a self-closing tag. For example, Hello<HR>World will display as:

Hello

---

World

4. VoIP offers many advantages, such as:
- Low operational costs.
  - Reduced communication and infrastructure expenses.
5. To send and receive e-mails, you need an electronic address, known as an e-mail address. To send and receive emails, you need a unique email address, consisting of a username and a domain name, separated by the @ symbol. The username is unique to each user, while the domain name is shared by users on the same server (e.g., [orangeeducation123@gmail.com](mailto:orangeeducation123@gmail.com)).
6. Advantages of E-commerce
- E-commerce has several advantages. Some of these are:
- It enables us to sell or purchase products and services both nationally and globally.
  - It offers a broad range of products to choose from.
  - It saves both money and time.
  - It allows us to shop for products and services any time and from anywhere.
- Disadvantages of E-commerce
- E-commerce provides several advantages, but it also has some disadvantages which are as follows:
- Uncertainty about the quality of products.
  - There is a high risk of online fraud.

