

TEACHER'S HANDBOOK

# COMPUTER

Books (6)

**KEYS**

FRANKLIN

# COMPUTER

## PART - 6

### Ch-1 ()

- A. 1. programming      2. Electronic signal      3. machine  
4. mnemonics      5. Off-stage, On stage
- B. 1.machine language      2. COBOL      3.C++      4.SQL      5. Prolog
- C. 1.T      2. F      3. F      4.T      5. F
- D. 1.Machine Language is expressed in binary form. This language has very high speed and very low memory utilization. But understanding it is difficult and a bit time consuming. It is highly dependent on the machine, which is why it is also regarded as a Low-Level language.

2.	Compiler	Interpreter
	A compiler converts the programming code written in a high-level language into machine language.	An interpreter translates line by line, carries out the instructions, and then repeats the procedure for the remaining instructions.

3.	High-Level Language	Assembly Language
	User-friendly. Machine-independent.	Symbols or mnemonic codes are used in this language in place of 0 and 1. Machine-dependent

4. The features of the fourth-generation language are as follows:
1. High speed of execution.
  2. Highly user-friendly and designed to reduce the level of programming efforts.
  3. In this language, the user has to mention only the output required, while the computer regulates the sequence of instructions that will achieve those results.
5. The advantages of learning a program are
1. It develops Analytical Thinking
  2. It enhances creativity.
  3. Programming develops reasoning skills.

### Critical Thinking

Generation	Popular Programming Languages
First Generation Languages	Machine Language
Second Generation Languages	FORTRAN, COBOL and ALGOL
Third Generation Languages	FORTRAN, Pascal and the C-family C++
Fourth Generation Languages	Perl, Python, Ruby, SQL, MatLab
Fifth Generation Languages	Mercury, Prolog, OP55

## Team Work

Machine Language: This language is expressed in binary form, i.e., 0 and 1, where 0 means 'off'; this is to signify a stage where the current is not flowing in the electronic computer units. The other stage is 1, the 'On' stage, which signifies the current flowing within the computer circuit.

Fortran is a general-purpose, programming language that is especially suited to numeric computation and scientific computing.

C++ is a high-level general-purpose programming language created by Danish computer scientist Bjarne Stroustrup as an extension of the C programming language, or "C with Classes".

Python is a high-level, general-purpose programming language.

Mercury is a pure logic programming language intended for the creation of large, fast, reliable programs.

### Ch-2 ()

- A. 1. presentation      2. mathematical      3. equation editor      4. screen recording  
5. liveliness

- B. 1.F      2.T      3.T      4.T      5. images T

- C. 1. Insert      2. Stop to save      3. Symbols  
4. Sound card, microphone, speakers      5.Format tool tab

D. 1.**Steps:**

1. Click on the Insert Tab.
2. In the images group, click on the photo album drop-down menu.
3. Click on the New Photo album option. The Photo Album dialogue box appears.
4. In the insert picture from a section, choose the File/Disk tab to select pictures from your computer. The Insert New pictures dialogue box appears.
5. Browse and navigate to the desired location to select as many as you want, to make your photo album. Under the pictures in the album box, the pictures that you select will be added.
6. Now, go to the Album Layout section and select picture layout, frame shape and theme accordingly.
7. Click on create button. Your photo album presentation is ready.

2. Follow the given steps to insert a video clip onto a slide.

**Steps:**

1. Click on the Insert tab.
2. In the Media group, click on the video drop-down and select the This PC option.
3. The insert video dialogue box appears. Navigate to the location and select the desired video, then click on insert.
4. Once the video is inserted, you can change the video shape, border effect, styles and much more in the video Format option.
5. Click on the Play button below the video clip.

- Follow the given steps to move videos on a slide.

**Steps:**

- Select the video.
- Move the video by dragging it to the new location or press the arrow keys to move the video by small amounts.
- You can quickly include mathematical equations in your presentation by using the ink equation tool.
- Screen recording is one of the features of PowerPoint which allows recording computer screens with audio. Follow the given steps for adding a screen recording in PowerPoint.

**Steps:**

- Select the slide where you want to record the screen recording.
- Click on the Insert tab and in the Media group, click the screen recording option.
- Click on the select area button.
- Drag the mouse over the desired region of the screen you want to record.
- Click on the record button if you want to add audio to the recording.

**Critical Thinking**

Follow the given steps to resize the video on the slide.

**Steps:**

- Select the video.
- Resizing handles appear around the border of the video.
- Drag any corner in or out as per the requirement.

**Teamwork**

Students will do it themselves

**Ch-3 ()**

- A. 1.Backspace      2. formats      3.AutoFill      4.=      5. arrow
- B. 1. T      2. F      3. F      4.T      5.F
- C. 1. Home      2.Alt + Enter key      3. Ctrl + Spacebar      4. Arrow Keys  
5.Edit Mode
- D. 1.

Page Up	Page Down
To move one screen up, we can press the Page Up key.	To move one screen down, we can press the Page Down key.

- The AutoFill feature fills in a series of data in your worksheet automatically.
- The end key will move the insertion point to the right of the cell content if edit mode is on.
- Follow the given steps to edit a cell in the worksheet. Steps: 1. Click on the cell you want to edit. 2. Double-click in the cell or press the F2 Key. 3. Erase the cell data. 4. Type the new data. 5. Press the Enter Key.
- There are two methods to copy a formula: the Fill Handle, Copy and Paste.

## Critical Thinking

AutoFill feature automatically fills a series of data in your worksheet. Follow the given steps to create a list using an auto-fill feature. Steps: 1. Enter the first two values you want to start the series with. 2. Select both the cells in which you have entered the data. 3. Position the mouse pointer over the bottom right corner of the last selected cell. Observe how the pointer changes to the (+) sign. 4. Drag the mouse to where you want the series. 5. Observe the cells filled with the desired values.

## Team Work

Students will do it themselves

### Ch-4 ()

- A. 1. Relationship                      2. Three                      3. Arithmetic                      4. address  
5. relative and absolute
- B. 1. F                      2. T                      3. T                      4. T                      5. T
- C. 1. Functions are predefined formulas in Excel to perform simple and complex calculations. Functions eliminate the chance to write incorrect formulas.  
2. A cell reference is a cell address that can be used in a formula to denote a specific cell.  
3. Symbols that mention the operation to be performed  
4. Numbers or text values that do not change.  
5. An expression that compares two or more numbers, text strings, cell contents, or function outputs is known as a comparison formula.
- D. 1. Enter Mode: This mode appears when you type the equal sign to begin the formula. It is the mode you use to enter text  
Point Mode: When we press any navigation key on the keyboard, Excel enters Point Mode. This is the mode you use to select a cell or range as a formula operand.  
Edit Mode: Excel enters Edit mode when we press the F2 key. This is the mode you use to make changes to formula
2. When a formula is copied from one cell to another cell, the value in the copied cell automatically gets changed.
3. Rules to Enter a Function
- All Excel functions must begin with = sign.
  - The function name must be a valid Excel name.
  - Open and close parenthesis must be placed after the function.
  - Arguments must be enclosed in Parentheses.
4. Follow the given steps to calculate the average.

### Steps:

1. Click on the cell where you want to place the average of the values. Let us say C11 Sheet 1.
2. Select the Insert Function button on the Formulas tab to open the Insert Function dialogue box.
3. Select Average from the list box, and click on the Ok button.
5. A mixed reference is a combination of relative and absolute references. Either a row or locked by preceding it with a dollar symbol.

2. The pen block presents as an extension to the Scratch 3.0
3. The different blocks available in Scratch are Sound Block, Motion Block, Control Block, Events Block, and Pen Block
4. 1. Click the sound block.
2. Select the play sound meow until done and drag this block and place it under the Script Palette.
3. Run the code by clicking on the blocks in the Script area.
4. To stop all sounds being played on all sprites, use the stop all sounds block.
5. Follow the given steps to choose a backdrop for the sprite.

Steps: 1. Click on the Choose a Backdrop button.

2. Choose a Backdrop window appears.

3. From the preview list, select the Blue Sky backdrop. The Blue Sky backdrop at the background of the Sprite will be added.

### Critical Thinking

Students will do it themselves

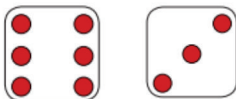
### Team Work

The students will do it themselves.

### Ch-5 ()

- A. 1. programming                      2. pattern                      3. Computational thinking  
4. patterns and sequences      5. reasoning
- B. 1.F              2.F              3.T              4.F              5.T
- C. 1. Decomposition              2. Pattern recognition              3. Pattern Abstraction  
4. Algorithm design              5. Computational thinking
- D. 1. Computational thinking is the process of breaking down a problem into simple enough steps.
2. Computational thinking logically segments a problem into smaller segments. It is a method of problem-solving that aids the user in comprehending, interpreting, and resolving issues.
3. There are four key skills in computational thinking: 1 Decomposition 2 Pattern Recognition  
3 Pattern Abstraction 4 Algorithm Design
4. Algorithm design is the process of laying out the steps and rules that must be followed in order to achieve the desired result.
5. The process of pattern identification is crucial in computational thinking since it allows the user to find solutions more quickly. Once a problem is broken down, discovering patterns in the broken parts simplifies work.

### Critical Thinking



## Team Work

The students will do it themselves.

### Ch-6 ()

- A. 1. open-source      2. Internet      3. two      4. Individual      5. Title Bar  
B. 1. T      2. T      3. F      4. F      5. F  
C. 3      4      2      5      1

D. 1. Python is an open-source programming language, which implies that anyone who is versed in Python is capable of creating new programs and adding them to the available Python libraries.

2. The features of Python:

- Python is freely available on the internet and can be easily downloaded from [www.python.org](http://www.python.org).
- Python is portable and platform-independent means it can run on various operating systems and hardware platforms.

3. The component of the Python Window:

- Title Bar: The names of the application and the document are displayed here. Command buttons like Minimise, maximise, restore and close are presented here.
- Menu Bar: Various tabs such as File, Edit, Shell, Debug, Windows and Help are displayed here.
- Script Area: The area where you type the code. Status Bar: Current status of your cursor is displayed here.

4. The steps to use the script mode in Python:

1. Start Python IDLE.
2. Click New on the File menu.
3. Type the commands in the window that opens.
4. Click on save on the File menu.
5. Name the file with the .py extension.

5.

Interactive Mode	Script Mode
Interactive mode is where you type commands and they are immediately executed.	Script mode is where you put a bunch of commands into a file (a script), and then tell Python to run the file.

## Critical Thinking

1. Script Area
2. Title Bar
3. Status Bar
4. Menu Bar

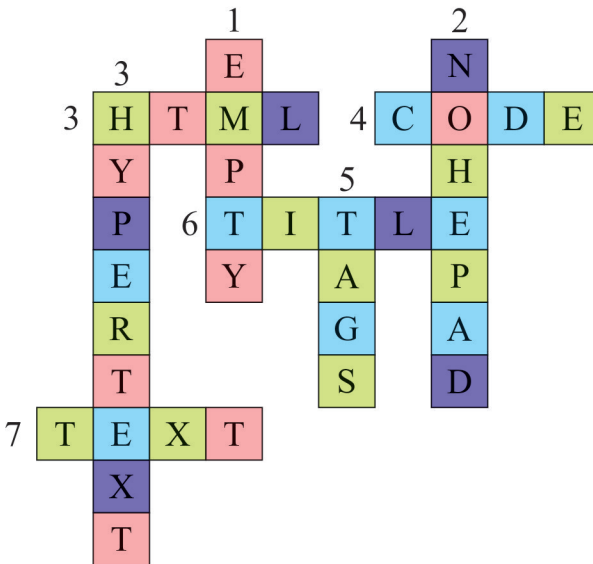
## Team Work

1. Python Developed by Guido van Rossum
2. JavaScript developed by Netscape
3. C++ developed by Dennis Ritchie
4. PHP Developed by Guido van Rossum

## Ch-7 ()

- A. 1.Hypertext Markup Language    2. Tim Berners-Lee    3. independent  
4. Tags    5.Attributes
- B. 1.F    2. F    3. F    4. F    5.T
- C. 1.Tags    2.Markup Language    3.HTML    4. markup tags  
5.Block Level Tags
- D. 1. The HTML file is a text document that contains markup tags. The markup tags instruct the web browser on how to display the webpage.  
2. Container Tags, Empty Tags, Block Level Tags, Text Level Tags  
3. In order to write HTML codes, we need to abide by some rules. These are:  
1. Tags should always be surrounded by angle brackets. <>  
2. Values given to the attributes should be enclosed in double-quotes.  
4. The three terminologies related to HTML: Hypertext, Markup Language, Tags  
5.Empty Tags: A tag that only contains an open tag and no closing tag is called an Empty Tag. For Example: Eand many more.

### Critical Thinking



### Team Work:

1. [www.youtube.com-c++](http://www.youtube.com-c++)
2. [www.google.com-PHP](http://www.google.com-PHP)
3. [www.facebook.com-Python](http://www.facebook.com-Python)
4. [www.twitter.com-Java](http://www.twitter.com-Java)

## Ch-8 ()

- A. 1. AI      2. machine learning      3. Weak AI and Strong AI      4. first      5. Robots
- B. 1. F      2. T      3. T      4. T      5. F
- C. 1. rote learning      2. SHRDLU      3. Perception      4. Voice Assistant  
5. Face Detection
- D. 1. The intelligence demonstrated by a machine is known as AI.  
2.

Weak AI	Strong AI
Weak AI, also known as narrow AI, is artificial intelligence with limited functionality.	Strong AI is widely used, and the scope is vast.
It is good at specific tasks.	It has incredible human-level intelligence.

3. A voice assistant is a kind of AI software that can comprehend and carry out human spoken orders. Examples: Google Assistant, Cortana, Siri and Alexa. Face detection is an AI technology used for various purposes. We use face detection for filters on the face while taking pictures and face ID for unlocking the phone.

4. Worldwide, businesses and organisations invest a significant amount of money in customer care and put in a lot of effort to give their clients ongoing assistance. Many companies have built chatbots to provide customer support that use Natural Language Processing to answer questions about their products and services.

5.1. Banking and Financial Systems: Banks and other financial organisations create Smart Apps to assist consumers with check deposits, fraud detection, etc., using AI technologies.

2. Space Research: Artificial intelligence facilitates satellite communications and extracts the maximum value from the images, increasing our understanding of space.

### Critical Thinking

Navigation apps, estimated time, Google Maps

### Team Work

AI helps students get personalised answers to relevant questions from teachers. It also helps educate students according to the issues and questions they face in class materials and online sessions. Students now have access to a larger system for interacting with professors.

### Ch-9 ()

- A. 1.E-mail          2.Voice-Over-Internet Protocol          3. video conferencing  
 4. Network Etiquettes          5.Cheques
- B. 1.T          2.F          3.T          4.T          5.T
- C. 1. Netiquettes          2.VoIP          3. social networking website  
 4.E-Greetings          5.Facebook
- D. 1. his refers to fraud in which scanners are used to steal the electronic serial numbers of cellular phones, which can be utilised for billing purposes and making broadcast calls.  
 2. Cyber security is the practice of defending computers, servers, mobile devices, electronic systems, networks, and data from malicious attacks.  
 3. E-mail, Video Conferencing, Voice-Over-Internet Protocol (VoIP), and social3 networking are different types of communication techniques.  
 4.

E-greeting	Paper Greeting
E-greetings are in soft copy	Paper greeting cards are in hard copy.

5.Data diddling, phishing, and cloning are three types of cyber threats.

#### Critical Thinking

A	H	E	B	A	N	K	I	N	G	O	I	P
R	B	C	A	S	D	F	G	O	H	J	K	L
D	F	D	E	C	V	B	N	M	A	P	V	S
C	O	M	M	U	N	I	C	A	T	I	O	N
Q	E	E	A	R	T	Y	Y	J	F	V	I	O
S	D	F	I	G	O	H	F	G	K	L	P	D
Q	W	E	L	E	G	R	E	E	T	I	N	G

#### Team Work

Students will do it themselves