

TEACHER'S HANDBOOK

Galaxy of
TECHNOLOGY
Books (6)

KEYS

PRIME TIME

Galaxy of TECHNOLOGY

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

A. To stop all sounds being played on all sprites, use the stop all sounds block.

B

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

Team Work

Students will do it themselves

Ch-7 (MS Powerpoint 2016)

- A. 1. slides. 2. Normal 3. Ctrl+N 4. pptx 5. Note
- B. 1. Slides layout 2. Zoom Control 3. Slide Pane 4. Quick Acces Toolbar
5. Slide Navigation Pane
- C. 1. F 2. T 3. T 4. F 5. F
- D. 1. c 2. a 3. c 4. a 5. b
- E. 1. Using a PowerPoint presentation has the following advantages: 1. Organise and structure your presentation. 2. Animate your slide to enhance the visual impact.
2. Follow the given steps to change the layout.

Steps: 1. Click on the Home tab.

2. In the slides group, click on the Layout button.

3. Select an appropriate layout for your slide.

3. There are different slide viewing options: Normal View: It is the default view in which the selected slide is displayed, along with the slide navigation window. Slide Sorter: It displays smaller versions of all the slides in the presentation. Reading View: In this view, we can review slides more easily because all the modifying tools are hidden in this. Slide Show: Slides from a presentation will be played through this.

4.

Slides	Presentation
A slide in PowerPoint is where information can be placed in the form of text, pictures, sounds, animation, and much more	PowerPoint is a popular application program that allows you to create and show slides to support a presentation.

5. A ribbon is made up of Tabs and Groups. It has multiple tabs, each with several groups of commands.

Critical Thinking

- A. a. Presentation b.Slides c.Reading d.Layout e.Ribbon
 B. Follow the given steps to save a presentation.

Steps:

1. Click on the File tab.
2. Select the save or save as command and click on the Browse option.
3. The Save as dialogue box appears. Select the location of a file.
4. Give the name to the presentation.
5. Click on the Save button.
6. The presentation will be saved with an extension .pptx.

Team Work

Students will do it themselves

Ch-8 (More about Scratch 3.0)

- A. 1.Slide show 2. Normal, Slide Sorter 3. Presentation 4.format background pane
 5. Mouse
- B. 1.Slide Show- Series of Slides 2. Font Colour- Default colour Black
 3. Font Style- Times New Roman 4. Font Size - Arial 11
 5. New Slide- Insert tab > New slide.
- C. 1.F 2.F 3.T 4.T 5.F
- D. 1.c. 2.b 3.c 4.a 5.d

- E. 1. Follow the given steps to insert a new slide.

Steps:

1. Click on the Home tab. Opening a Presentation
 2. From the slides group, click on the New slide.
 3. Select the type of slide you want.
 4. A new side is inserted
2. The slide show is a series of slides that displays all the slides on the screen one by one.
3. The position of the pictures can be changed. Follow the given steps to change the position of the picture.

Steps:

1. Click on the image.
 2. Sizing handles will appear around the edges of the picture.
 3. Move the mouse pointer over a sizing handle.
 4. The shape of the cursor will change to a four-headed arrow.
 5. While holding the mouse button, drag the mouse in the required direction.
 6. Release the mouse once the picture is positioned.
4. Making changes in the text's appearance to make it more exciting and attention grabbing is referred to as "formatting."
5. Follow the given steps to insert an image from a file.

Steps:

1. Take the cursor where you want to insert a picture on the slide.
2. Click on the Insert tab; click on the Pictures button in the Images group.
3. A dialogue box will appear.
4. Browse to the location where you have saved your picture file.
5. Select the desired picture and click the insert button.
6. The picture will appear on the slide.

Critical Thinking

- A. 2 4 3 1
- B. Follow the given steps to add a background style using the theme options.

Steps:

1. Click the desired slide.
2. Click on the Design tab. In the Themes group, choose the themes you want to apply

Team Work

Students will do it themselves.