

# Computer - 1

## CHAPTER-1

### Computer : A Friendly Machine & Its Uses

**A. Tick (✓) the correct answer:**

- (a)
- (b)
- (b)
- (b)
- (a)

**B. Fill in the blanks:**

- digital
- computer
- tired
- Computer
- tablet

**C. True/False:**

- T
- T
- F
- T
- F

**D. Complete the following sentences:**

- electricity
- fast
- tasks
- commands
- tired
- informations

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## CHAPTER-2

### Parts of Computer

**A. Tick (✓) the correct answer:**

- (b)
- (a)
- (b)
- (a)
- (b)

**B. Fill in the blanks:**

- music
- keys
- Mouse
- Central
- CPU

**C. Match the computer part with its function:**

- c
- e
- a
- b
- d

**D. True/False:**

- F
- T
- F
- F
- T

**E. Identify the parts of the computer and write their names.**

- Monitor
- Keyboard
- Mouse
- CPU
- Printer
- Speakers

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## CHAPTER-3

### Monitor and CPU : Computer's Best Friends

**A. Tick (✓) the correct answer:**

- (a)
- (b)
- (b)
- (a)

**B. Fill in the blanks:**

- drawings
- brain
- movies
- together
- distance

**C. True/False:**

- T
- T
- F
- F
- T

**D. Match the Columns:**

- c
- e
- d
- b
- a

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**CHAPTER-4****Fun with Mouse****A. Tick (✓) the correct answer:**

- |        |        |
|--------|--------|
| 1. (b) | 2. (b) |
| 3. (a) | 4. (b) |
| 5. (a) |        |

**B. Fill in the blanks:**

- |                 |            |
|-----------------|------------|
| 1. cable        | 2. pointer |
| 3. pad          |            |
| 4. Scroll wheel |            |
| 5. index        |            |

**C. True/False:**

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

**D. Match the following:**

- |      |      |
|------|------|
| 1. b | 2. d |
| 3. a | 4. e |
| 5. c |      |

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Left Mouse Button  
 Scroll Wheel  
 Right Mouse Button  
 Mouse tail or cable

**CHAPTER-5****Fun with Keyboard****A. Tick (✓) the correct answer:**

- |        |        |
|--------|--------|
| 1. (b) | 2. (a) |
| 3. (a) | 4. (a) |
| 5. (b) |        |

**B. Fill in the blanks:**

- |              |              |
|--------------|--------------|
| 1. Down      | 2. Caps Lock |
| 3. enter     | 4. numbers   |
| 5. Backspace |              |

**C. True/False:**

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

**D. Match the Columns:**

- |      |      |
|------|------|
| 1. d | 2. e |
| 3. a | 4. b |
| 5. c |      |

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**CHAPTER-6****Paint****A. Tick (✓) the correct answer:**

- |        |        |
|--------|--------|
| 1. (a) | 2. (b) |
| 3. (b) | 4. (a) |
| 5. (b) |        |

**B. Fill in the blanks:**

1. fill
2. shapes
3. eraser
4. drawing area
5. line

**C. True/False:**

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

**D. Match the Columns:**

- |      |      |      |
|------|------|------|
| 1. c | 2. d | 3. e |
| 4. b | 5. a |      |

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**CHAPTER-7****TUX Paint****A. Tick (✓) the correct answer:**

- |        |        |
|--------|--------|
| 1. (a) | 2. (a) |
| 3. (b) | 4. (b) |
| 5. (b) |        |

**B. Fill in the blanks:**

- |            |           |
|------------|-----------|
| 1. toolbar | 2. save   |
| 3. hidden  | 4. colour |
| 5. canvas  |           |

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**C. True/False:**

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

**D. Match the Columns:**

- 1. b                      2. e
- 3. a                      4. c
- 5. d

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**CHAPTER-8**

**Drawing with AI**

**A. Tick (✓) the correct answer:**

- 1. (a)                      2. (b)
- 3. (a)                      4. (a)
- 5. (a)

**B. Fill in the blanks:**

- 1. create
- 2. AI
- 3. colour
- 4. suggestions
- 5. Artificial

**C. True/False:**

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

**D. Match the Columns:**

- 1. b                      2. c                      3. a
- 4. d                      5. e

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**CHAPTER-9**

**Do's and Don'ts of Computer**

**A. Tick (✓) the correct answer:**

- 1. (a)                      2. (a)
- 3. (a)                      4. (a)
- 5. (a)

**B. Fill in the blanks:**

- 1. queue
- 2. silence
- 3. electrical
- 4. drink, eat
- 5. cover

**C. True/False:**

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

**D. Answer the questions given below:**

- 1. To keep it dust free, neat and clean.
- 2. No, we should not make noise in a computer room.
- 3. To keep our computer clean, we should always keep it covered.

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**Rule Chart**

- (a) Remove your shoes before entering a computer room.
- (b) Maintain a queue to enter the computer room.
- (c) Always keep silence inside the computer room.
- (d) Computer should be kept dust free, neat and clean.
- (e) Computer should always be switched off, when not in use.
- (f) Do not press computer keys roughly.

**Worksheet - 1**

**A. Tick (✓) the correct answer:**

- 1. (a)                      2. (b)
- 3. (b)                      4. (a)

**B. Fill in the blanks:**

- 1. digital                      2. Central
- 3. pad                      4. enter

**C. True/False:**

- 1. F                      2. F
- 3. F                      4. F

**D. Identify the parts of the computer and write their names.**

1. Monitor
2. CPU
5. Printer

### Worksheet - 2

**A. Tick (✓) the correct answer:**

- |        |        |
|--------|--------|
| 1. (a) | 2. (a) |
| 3. (a) | 4. (a) |

**B. Fill in the blanks:**

1. shape
2. toolbar
3. suggestions
4. electrical
5. Artificial

**C. Match the Column:**

- |      |      |
|------|------|
| 1. b | 2. e |
| 3. a | 4. c |
| 5. d |      |



# Computer-2

## CHAPTER-1

### Working of a Computer

**A. Tick (✓) the correct answer:**

1. (a)
2. (c)
3. (b)
4. (c)
5. (c)

**B. Fill in the blanks:**

1. mouse
2. printer
3. CPU
4. scanner
5. pendrive

**C. True/False:**

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

**D. Match the following:**

1. c
2. a
3. d
4. b

**E. Answer the following questions:**

1. A computer is an electronic device.
2. Any machine or part which performs a task is called device.
3. The name of three input devices are : Keyboard, Scanner and Mouse.
4. The name of three output devices are : Monitor, Printer and Speakers.

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## CHAPTER-2

### Computer in Our Daily Life

**A. Tick (✓) the correct answer:**

1. (a)
2. (a)
3. (c)
4. (c)
5. (c)

**B. Fill in the blanks:**

1. buildings
2. banks

3. home
4. sattellites, rockets and missiles.
5. printings

**C. True/False:**

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

**D. Match the following pictures with their activity.**

1. Studying
2. Billing counters at shops
3. Scientific researches
4. Online shopping

**E. Answer the following questions:**

1. Computers are used in the school library, to keep the records of books.
2. (1) It helps in checkups and eye testing. (2) It helps a doctor in operations.
3. ATM helps us to withdraw the money.
4. Computers helps in reservation and cancellations of tickets for passengers.
5. Computer help engineers in designing cars, airplanes and other useful machines.

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## CHAPTER-3

### Working with Windows

**A. Tick (✓) the correct answer:**

1. (b)
2. (b)
3. (c)
4. (a)
5. (b)

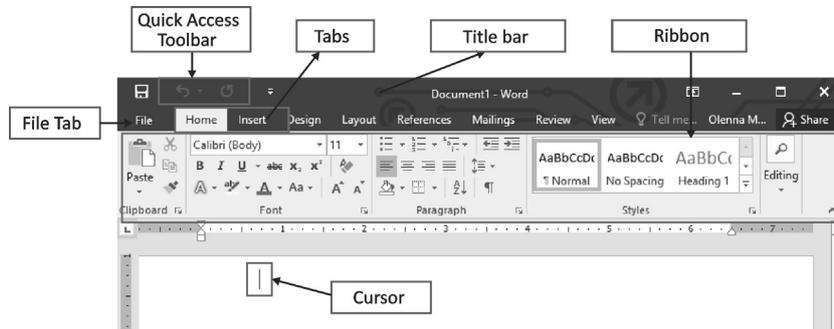
**B. Fill in the blanks:**

1. UPS
2. gently



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C. Name the following with the help of given word in the box.



D. Fill the missing letters in the given word.

1. Font
2. Ribbon
3. Cursor
4. Underline
5. Italic

E. Answer the following questions:

1. Wordpad is a program that is used for typing text on a computer.
2. (a) To select a single word, double click on it.  
(b) To select a line, click and drag the mouse over it.  
(c) To select all text press ctrl+A.
3. **Method 1**– By clicking the close (X) button form the top right hand side of wordpad window.  
**Method 2**– By clicking the close option form the wordpad menu.

Art Integration

Do yourself.

## CHAPTER-6

### Fun with TUX Typing

A. Tick (✓) the correct answer:

1. (a)
2. (c)
3. (a)
4. (a)
5. (a)

B. Fill in the blanks:

1. typing
2. fish
3. keyboard
4. sky
5. computer

C. True/False:

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

D. Match the following:

1. b
2. d
3. c
4. a

E. Answer the following questions:

1. The name of the penguin is TUX.
2. We catch fish, when we types word correctly in TUX Typing.
3. It helps us learn to type faster and better.
4. Letters and fish fall from the sky.
5. TUX typing is a game played on a computer.

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Do yourself.

## CHAPTER-7

### Using Google Docs-Your Digital Notebook!

A. Tick (✓) the correct answer:

1. (b)
2. (a)
3. (a)
4. (a)
5. (b)

B. Fill in the blanks:

1. notebook
2. Blank
3. Drawing

4. microphone
5. automatically

**C. True/False:**

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

**D. Answer the following questions:**

1. Google Docs is used for writing, drawing and doing homework.
2. We can start a new document by clicking on + Blank Document button.
3. Go the Insert menu and choose Drawing.
4. Google Docs saves our work automatically.
5. Yes, we can share our work with others.

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Do yourself.

**CHAPTER-8****Typing Heroes—Mastering the Keyboard Adventure!****A. Tick (✓) the correct answer:**

1. (a)            2. (b)
3. (a)            4. (a)
5. (a)

**B. Fill in the blanks:**

1. ;
2. typing
3. fun
4. homework
5. screen

**C. True/False:**

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

**D. Answer the following questions:**

1. The home row keys are A, S, D, F, J, K, L and ; .
2. It is important to use all fingers while typing as it helps to type faster and

more accurately.

3. We can practice by playing typing games and typing words every day.
4. We should practice daily and try not look at the keyboard.
5. A good typist can finish work faster and make fewer mistakes.

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**Worksheet - 1****A. Tick (✓) the correct answer:**

1. (c)            2. (c)
3. (b)            4. (a)
5. (b)

**B. Fill in the blanks:**

1. mouse            2. home
3. gently            4. keyboard
5. .txt

**C. True/False:**

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

**D. Answer the following questions:**

1. Computers are used in the school library, to keep the records of books.
2. (1) Keep the computer safe from dust by covering it, when not in use. (2) Clean the computer with a soft, tidy and dry cloth.
3. Notepad is the software that is used for typing text on the computer.

**D. Match the following pictures with their activity.**

1. Studying
2. Billing counters at shops
3. Scientific researches
4. Online shopping

**Worksheet - 2****A. Tick (✓) the correct answer:**

1. (c)            2. (c)

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- 3. (c)
- 4. (b)
- 5. (a)

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

**D. Answer the following questions:**

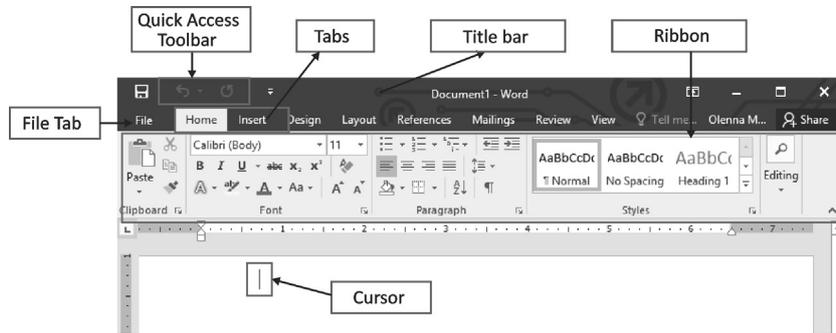
- 1. Wordpad is a program that is used for typing text on a computer.
- 2. The name of the penguin is TUX.
- 3. We can start a new document by clicking on + Blank Document button.

**B. Fill in the blanks:**

- 1. double
- 2. fish
- 3. sky
- 4. notebook
- 5. typing

**C. True/False:**

**E. Name the following with the help of given word in the box.**



# Computer - 3

## CHAPTER-1

### Working of a Computer

- A. Tick (✓) the correct answer:
- (b)
  - (b)
  - (b)
  - (b)
  - (a)
- B. Fill in the blanks:
- devices
  - hardware
  - ALU
  - WordPad
  - input
- C. Tick (✓) the correct statements and cross (X) out the wrong ones:
- ✓
  - ✓
  - ✓
  - X
  - ✓
- D. Match the following:
- c
  - d
  - e
  - a
  - b
- E. Answer in one line:
- Input – Process – Output
  - + and – are operators and 40, 60, 30 are numbers (operands).
  - Central Processing Unit
  - Arithmetic Logic Unit
  - Central Unit
- F. Answer the following questions:
- Input is the data or instructions given to the computer to process.
  - Output is the result that we get after the computer processes the input.
  - Central Processing Unit processes the data as per the given instructions.
  - Input devices gives data, the CPU processes it, and output devices show the result.
  - Computer Hardware refers to the physical parts of a computer, like the

keyboard, monitor and CPU.

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## CHAPTER-2

### Introduction to Windows 10

- A. Tick (✓) the correct answer:
- (b)
  - (c)
  - (c)
  - (a)
  - (b)
- B. Fill in the blanks:
- graphics
  - icons
  - Wallpaper
  - Operating system
  - ribbons
- C. Tick (✓) the correct statements and cross (X) out the wrong ones:
- X
  - ✓
  - ✓
  - X
  - ✓
- D. Explain the following ones:
- Tiny pictures on the desktop are called icons.
  - Windows is an operating system.
  - Wallpaper is the cover of desktop.
  - Screen saver is moving graphics which appear on the screen when the computer remain idle.
  - The programs that can be placed on the taskbar, called pinned programs.
- E. Match the following:
- e
  - d
  - a
  - b
  - c
- F. Answer the following questions:
- A software that manages entire computer system is known as operating system. Examples : Windows, Linux, Mac OS, Chrome OS.

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2. Cortana is a voice-enabled assistant in windows 10 that helps user using voice commands.
3. System Tray is the small section on the right side of the Taskbar that displayed icons for background running applications.
4. Working area is a large area located in the centre of the window where we open and work on programs and files.
5. We use the Scroll bars to scroll the window vertically or horizontally.
6. Software programs are applications that help us perform tasks on a computer. Examples : MS Paint, WordPad, TuxtPaint, Notepad.

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**CHAPTER-3**

**Working with Files and Folders**

**A. Tick (✓) the correct answer:**

1. (a)
2. (a)
3. (c)
4. (b)
5. (b)

**B. Fill in the blanks:**

1. unique
2. image
3. desktop
4. files
5. audio

**C. Tick (✓) the correct statements and cross (X) out the wrong ones:**

1. ✓
2. X
3. ✓
4. X
5. ✓

**D. Match the following:**

1. d
2. c
3. e
4. b
5. a

**E. Explain the following terms in one sentences:**

1. A folder is a place where we can store

multiple files on a computer.

2. A sub-folder is a folder inside another folder.
3. A drive is a storage space in a computer where files and folders are kept.
4. It refers to the information or data stored inside a file or folder.

**F. Answer the following questions:**

1. Different computer files opens in different software or programs as image file is opened in MS Paint while text, files opens in Notepad and a video file opens in Media Player.
2. It refers to the information or data stored inside a file or folder.
3. A folder is a place where we can store multiple files on a computer.
4. To create a folder in This PC:
  - (a) Right-click in an empty space.
  - (b) Select New and click on 'Folder'.
  - (c) Then type a name and press Enter.To save files in desired folder:
  - (a) File > Save
  - (b) In the Save As option, choose the desired folder.
  - (c) Type a file name, and click 'Save'.

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**CHAPTER-4**

**Introduction to MS Word 2019**

**A. Tick (✓) the correct answer:**

1. (c)
2. (c)
3. (b)
4. (b)
5. (c)

**B. Fill in the blanks:**

1. tab
2. cursor
3. scrolling
4. format
5. mouse

C. Tick (✓) the correct statements and cross (✗) out the wrong ones:

1. ✓      2. ✓      3. ✗  
4. ✗      5. ✗

D. Match the following columns:

1. c      2. d      3. e  
4. a      5. b

E. Answer the following questions:

- Some features of word processor are :
  - Typing, editing and formatting text.
  - Perform spell and grammar check.
  - Preview and print documents.
  - Inserting images, shapes and tables.
- The title bar is located at the top of the MS Word window and shows the name of the document. It also has control buttons.
- Ribbons are wide strips which contain all commands. Each ribbon is opened by a tab.
- To save the document in MS Word, we click on "File" then "Save As", choose a location, type a name, and click "Save". We can also press Ctrl+S to save quickly.

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## CHAPTER-5

### Kinds of Computer Software

A. Tick (✓) the correct answer:

1. (b)      2. (c)      3. (a)  
4. (c)      5. (c)

B. Fill in the blanks:

1. system      2. Multi-user  
3. single-user      4. Mac OS  
5. MS-DOS

C. Tick (✓) the correct statements and cross (✗) out the wrong ones:

1. ✓      2. ✓      3. ✗  
4. ✗      5. ✓

D. Answer the following questions:

- (a) Microsoft Windows 95  
(b) MS-DOS
- GUI – Graphical User Interface  
CUI – Character User Interface
- An operating system is a software that helps to run and manage a computer and its programs.
- A multi-user operating system allows more than one person to use the computer at the same time.
- Two software packages for graphics and designing are :  
(a) Corel Draw Graphics Suite  
(b) Adobe CS

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## CHAPTER-6

### Computer Languages

A. Tick (✓) the correct answer:

1. (b)      2. (c)  
3. (a)      4. (b)  
5. (c)

B. Fill in the blanks:

1. Assembly      2. High  
3. Machine      4. Java  
5. LOGO

C. Tick (✓) the true statements and cross (✗) out the false statements:

1. ✗      2. ✗      3. ✓  
4. ✗      5. ✓

D. Answer the following questions:

- Two advantages of high level languages are :  
(a) Commands are written in simple English language. (b) Knowledge of

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hardware and Binary Arithmetic is not required.

2. Assembly language is a low-level programming language that uses symbols and short codes instead of 0s and 1s.
3. Computer understands only machine language (0s and 1s), so we need to convert our programs for the computer to process them.
4. A compiler is software that converts a high-level language program into machine language at once.
5. High-level languages like Python, Java and C++ use simple English words for programming.

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**CHAPTER-7**

**Fun with Scratch**

**A. Tick (✓) the correct answer:**

1. (c)
2. (c)
3. (c)
4. (c)
5. (b)

**B. Fill in the blanks:**

1. Scratch
2. Motion
3. Script
4. Blocks

**C. Tick (✓) the correct statements and cross (X) out the wrong ones:**

1. ✓
2. ✓
3. X
4. ✓
5. ✓

**D. Match the following columns:**

1. b
2. c
3. a
4. d

**D. Answer the following questions:**

1. Instructions or set of instructions given to computer to perform task is called programming.
2. Stage is used to keep all the sprites which we add in our project. Our

final output of animation is shown in stage.

3. We can add backdrop, choosing from backdrop library or by importing an image in scratch.
4. Scratch is a visual program. In it, we can create interactive animations, games and stories.
5. Sprite can be turned in the following ways :
  - (a) Clockwise.
  - (b) Turn Anti-clockwise.
  - (c) Point the sprite up, down, left or right.

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**CHAPTER-8**

**The Internet and Its Uses**

**A. Tick (✓) the correct answer:**

1. (b)
2. (c)
3. (a)
4. (b)
5. (b)

**B. Fill in the blanks:**

1. computers
2. messages
3. browser
4. permission
5. educational

**C. Match the following:**

1. c
2. a
3. e
4. b
5. d

**C. Tick (✓) the correct statements and cross (X) out the wrong ones:**

1. X
2. ✓
3. ✓
4. X
5. ✓

**E. Answer the following questions:**

1. The internet connects millions of computer across the world, allowing people to communicate, learn and have fun.

2. Two uses of the internet are :
  - (a) Students can use the internet to find E-books and articles to read.
  - (b) The internet also has many entertaining videos, like cartoons and funny shows.
3. A web browser is a special program that helps you to visit websites.  
Some common web browsers are : Google Chrome, Microsoft Edge, and Mozilla Firefox.
4. If we see something strange on the internet that makes us feel uncomfortable or scared, tell an adult right away.
5. Sharing personal information like your name, address or phone number can be unsafe. Strangers may use it wrongly.

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**Worksheet - 1**

- A. Tick (✓) the correct answer:**
  1. (b)                      2. (a)
  3. (c)                      4. (b)
  5. (c)
- B. Fill in the blanks:**
  1. hardware              2. icons
  3. unique                 4. files
  5. cursor
- C. True/False:**
  1. T                         2. T
  3. T                         4. F
  5. T
- D. Answer the following questions:**
  1. Central Processing Unit.
  2. Cortana is a voice-enabled assistant in windows 10 that helps users using voice commands.
  3. Some features of word processor are:
    - (a) Typing, editing and formatting

- text.
- (b) Perform spell and grammar check.
- (c) Preview and print documents.
- (d) Inserting images, shapes and tables.
4. To create a folder in This PC:
  - (a) Right-click in an empty space.
  - (b) Select New and click on 'Folder'.
  - (c) Then type a name and press Enter.

**C. Match the following columns:**

- |      |      |
|------|------|
| 1. d | 2. c |
| 3. e | 4. b |
| 5. a |      |

**Worksheet - 2**

- A. Tick (✓) the correct answer:**
  1. (a)                      2. (b)
  3. (b)                      4. (c)
  5. (a)
- B. Fill in the blanks:**
  1. system
  2. Mac OS
  3. Assembly
  4. Blocks
  5. educational
- C. True/False:**
  1. T                      2. T                      3. T
  4. T                      5. T
- D. Answer the following questions:**
  1. (a) Microsoft Windows 95  
(b) MS-DOS
  2. Assembly language is a low-level programming language that uses symbols and short codes instead of 0s and 1s.
  3. Scratch is a visual program. In it, we can create interactive animations, games and stories.
  4. Two uses of the internet are :

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- (a) Students can use the internet to find E-books and articles to read.
- (b) The internet also has many entertaining videos, like cartoons

and funny shows.

**C. Match the following columns:**

- |      |      |
|------|------|
| 1. b | 2. c |
| 3. a | 4. d |



# Computer-4

## CHAPTER-1

### Multimedia on Computers Using Windows 10

- A. Tick (✓) the correct answer:
- (c)
  - (a)
  - (b)
  - (b)
  - (b)
- B. Fill in the blanks with suitable words given in the box below :
- animations
  - Windows Media Player
  - Photo editing
  - Auto Play
  - Windows Media Player
- C. Tick (✓) the true statements and cross (X) for the false statements.
- ✓
  - X
  - X
  - ✓
  - X
- D. Match the following columns:
- b
  - e
  - c
  - a
  - d
- E. Answer the following questions:
- The main benefit of using multimedia in educational content is it offers interactive learning resources, instructional video and simulations to enrich learning.
  - Two software applications that can be use to edit images on windows 10 are : Adobe Photoshop and Paint.
  - It helps the computer automatically show options when a CD is inserted.
  - Windows Media Player
  - It is important to update graphics drivers when playing games on a windows 10 computer because it helps games run better and prevents

problems with graphics.

### Art Integration

Do yourself.

## CHAPTER-2

### Window Settings

- A. Tick (✓) the correct answer:
- (b)
  - (b)
  - (b)
  - (c)
  - (a)
- B. Fill in the blanks with suitable words given in the box below :
- 3D Text
  - clock
  - wallpaper
  - personalization
  - Windows
- C. Tick (✓) the true statements and cross (X) for the false statements.
- ✓
  - ✓
  - ✓
  - ✓
  - ✓
- D. Write a short note on each of the following.
- A screen saver is an animated or moving image that appears on the computer screen when it is idle for a certain time.
  - Customizing these settings to fit our preferences is known as personalization.
  - A windows theme is a combination of background, sounds and screen saver that change the appearance of the computer screen.
  - Wallpaper is the background image displayed on the desktop screen.
- E. Answer the following questions:

**18** Computer 1 to 5

1. An operating system manages the functioning of a computer system.
2. Customizing these settings to fit our preferences is known as personalization.
3. The steps for personalizing the desktop are :
  - (a) Right-click on the desktop.
  - (b) Select the "Personalization" option.
  - (c) Choose the desired background, theme or screen saver.
  - (d) Click 'Apply' and then 'OK'.
4.
  - (a) Open "Settings".
  - (b) Click on "Personalization".
  - (c) Select "Themes".
  - (d) Choose a new theme and apply it.
5.
  - (a) Click on the Lock screen section > screen saver settings.
  - (b) Click on the Screen saver drop down and select the screen saver of your choice.
  - (c) Set the wait time.
  - (d) Click on the OK button.

**Art Integration**

Do yourself.

**CHAPTER-3**

**Windows 10 : Working With Files and Folders**

**A. Tick (✓) the correct answer:**

1. (c)
2. (b)
3. (a)
4. (c)

**B. Fill in the blanks with suitable words given in the box below :**

1. permanently
2. Ctrl+V
3. sub-folder
4. folder

5. primary

**C. Tick (✓) the true statements and cross (X) for the false statements.**

1. ✓
2. ✓
3. ✓
4. ✓
5. ✓

**D. Match the following columns:**

1. d
2. c
3. e
4. a
5. b

**E. Answer the following questions:**

1. A file is a collection of data stored on a computer.

To create a file, click on the desktop, select "New", choose a file type and name it.

2. A folder is designed to store files and other folders, which are referred to as sub-folders.

The advantages of folders are:

(a) Helps in organizing files properly.

(b) We can easily share an entire folder with others.

3. The 'This PC' window helps in managing files and folders on the computer. It shows all drives, folders and storage devices connected to the computer.

4. A deleted file moves to the Recycle Bin. To restore a deleted file, open the Recycle Bin, right-click on the file and select Restore.

5. The F2 function key is used to rename files and folders.

**Art Integration**

Do yourself.

**CHAPTER-4**

**Edit and Format Word Document**

**A. Tick (✓) the correct answer:**

1. (b)
2. (b)
3. (c)
4. (c)
5. (b)

**B. Fill in the blanks with suitable words given in the box below :**

1. red
2. Toggle
3. Sentence
4. Thesaurus
5. Subscript

**C. Tick (✓) the true statements and cross (X) for the false statements.**

1. ✓
2. ✓
3. X
4. ✓
5. ✓

**D. Match the following columns:**

- |      |      |
|------|------|
| 1. g | 2. f |
| 3. e | 4. c |
| 5. h | 6. b |
| 7. i | 8. a |
| 9. d |      |

**E. Answer the following questions:**

1. Editing is a crucial function performed within a word processor, involving the correction and modification of text documents using various editing tools.
2. Formatting refers to altering the visual aspects of the text, and other elements such as changing the font style, color and size.
3. Thesaurus helps to find similar (synonyms) or opposites (antonyms) words.
4. Right-click the word 'ture' and choose the correct spelling 'true'.
5. (a) Ctrl+Page Up  
(b) Ctrl+Right arrow key  
(c) UP arrow  
(d) End  
(e) Home Key

**Art Integration**

Do yourself.

**CHAPTER-5****MS Word :  
Text Enhancement****A. Tick (✓) the correct answer:**

1. (a)
2. (a)
3. (a)
4. (a)
5. (c)

**B. Fill in the blanks with suitable words given in the box below :**

1. center, justified
2. style
3. Line
4. border
5. Watermark

**C. Tick (✓) the true statements and cross (X) for the false statements.**

1. ✓
2. ✓
3. X
4. X
5. ✓

**D. Answer the following questions:**

1. Text alignment means to align the text and set it on a page or a document. By default, the text is aligned to the left.
2. Left alignment – Ctrl + L  
Centre alignment – Ctrl + E  
Justified alignment – Ctrl + J
3. A bullet list is used when there is no fixed sequence of the points while in a numbered list, the sequence of points remains fixed.
4. Borders are lines drawn around the text or entire page. They are applied to make the page more attractive.
5. Watermarks are the faint imprints of text or images. They help in claiming the ownership of a document and provide information about the original owner or creator of the

document.

### Art Integration

Do yourself

## CHAPTER-6

### MS Word : Working with Graphics

- A. Tick (✓) the correct answer:
1. (d)                      2. (c)
  3. (c)                      4. (a)
  5. (a)
- B. Fill in the blanks with suitable words given in the box below :
1. top                      2. remove
  3. ClipArt                4. styles
  5. shapes
- C. Tick (✓) the true statements and cross (X) for the false statements.
1. ✓                      2. X
  3. ✓                      4. ✓
  5. X
- D. Answer the following questions:
1. (a) Click on the picture.  
(b) A rotating icon appears at the top.  
(c) Hold the rotation handle with left-click of the mouse and drag the mouse slowly in clockwise or anticlockwise direction.
  2. (a) Click on the picture.  
(b) Go to the Layout options.  
(c) Choose how the text should wrap around the image like square or Right.
  3. Cropping is applied to remove the unwanted region of an image or picture.
  4. ClipArt is a group of illustrations, symbols, paragraphs, videos and audios that remain available for computer users to insert into their document.

5. To insert various shapes :

Go to the insert tab, then to illustrations group and now click on shapes drop-down to select the required shape.

### Art Integration

Do yourself

## CHAPTER-7

### Introduction to Internet

- A. Tick (✓) the correct answer:
1. (a)                      2. (c)
  3. (d)                      4. (c)
  5. (c)
- B. Fill in the blanks with suitable words given in the box below :
1. Internet
  2. communication
  3. Modem
  4. Home
  5. Hyperlink
- C. Tick (✓) the true statements and cross (X) for the false statements.
1. ✓                      2. X                      3. ✓
  4. X                      5. ✓
- D. Write a short note on each of the following:
1. A hyperlink is a clickable text or image that connects one web page to another.
  2. A web browser is a software that allows users to access view and interact with various types of content on a web page.
  3. The homepage is the initial or main page of a website.
  4. A search engine is a type of website designed to help users locate information on the world wide web.
  5. The Uniform Resource Locator is the unique address that identifies a specific webpage.

**D. Match the following columns:**

- |      |      |
|------|------|
| 1. c | 2. e |
| 3. a | 4. d |
| 5. b |      |

**F. Answer the following questions:**

- The Internet is a global system that connects networks worldwide, often referred to as a "network of networks".
- Two uses of internet are :
  - Communicate with friends and family.
  - Online shopping and Banking.
- The basic requirement for an internet connection are:
  - A computer or mobile
  - A modem or dongle.
  - An internet connection from a service provider.
- The World Wide Web (www) is a collection of websites and web pages we can visit using the internet.
- To save a searched image on the computer:
  - Click on image categories then right click on the selected image and choose the Save Image As option.
  - The Save Picture dialog box will appear. Specify the location and file name to save and click on the save button.

**Art Integration**

Do yourself.

**CHAPTER-8****Programming Concepts  
with Scratch****A. Tick (✓) the correct answer:**

- |        |        |
|--------|--------|
| 1. (d) | 2. (b) |
| 3. (a) | 4. (c) |
| 5. (b) |        |

**B. Fill in the blanks with suitable words given in the box below :**

- |                |             |
|----------------|-------------|
| 1. programming |             |
| 2. visual      | 3. Costumes |
| 4. sounds      | 5. backdrop |

**C. Tick (✓) the true statements and cross (X) for the false statements.**

- |      |      |
|------|------|
| 1. ✓ | 2. X |
| 3. ✓ | 4. X |
| 5. ✓ |      |

**D. Match the following columns:**

- |      |      |
|------|------|
| 1. d | 2. e |
| 3. b | 4. c |
| 5. a |      |

**E. Answer the following questions:**

- To launch the Scratch applications :
  - Click on Start.
  - Click on Scratch.
- The file menu is used to create a new project, open an existing project, save your project, or save it to your computer.
- When you click on the code tab on the left side of the interface, the code panel opens up. The panel displays a variety of blocks organised into different categories, such as Motion, Events, Looks, variables and control.
- Event handling is when something happens (like clicking a key or sprite) and it starts an action. For example using the block "when green flag clicked" is an event.
- The stpes for changing sprite's costume are:
  - Click on the sprtie you want to edit.
  - Click on the costume tab.
  - Choose a costume from the library or draw a new one.
  - Click on the costume to apply it to the sprite.

**Art Integration**

Do yourself

**CHAPTER-9**

**More About Scratch**

**A. Tick (✓) the correct answer:**

- 1. (b)                      2. (b)
- 3. (a)                      4. (b)
- 5. (a)

**B. Fill in the blanks with suitable words given in the box below :**

- 1. Looks                      2. Say
- 3. Cat                        4. sound
- 5. execute

**C. Tick (✓) the true statements and cross (X) for the false statements.**

- 1. ✓                      2. X                      3. ✓
- 4. ✓                      5. X

**D. Match the following columns:**

- 1. c                        2. d
- 3. b                        4. e
- 5. a

**E. Answer the questions given below:**

- 1. We can change the color of a sprite in Scratch by using the "Change [color effect] by" block to change the color of a sprite.
- 2. Use the "Say [Hello!] for [2] seconds" block from the Looks category.
- 3. The "Play sound [sound name] until done" block is used.
- 4. Yes, we can draw or upload our own backdrop in Scratch.
- 5. The "Hide" block makes the sprite disappear from the stage.

**Art Integration**

Do yourself.

**Worksheet - 1**

**A. Tick (✓) the correct answer:**

- 1. (c)                      2. (b)

- 3. (a)                      4. (c)

**B. Fill in the blanks:**

- 1. Adobe Photoshop
- 2. clock
- 3. folder                      4. red

**C. True/False:**

- 1. X                        2. ✓
- 3. ✓                        4. ✓

**D. Answer the following questions:**

- 1. The main benefit of using multimedia in educational content is, it offers interactive learning resources, instructional video and simulations to enrich learning.
- 2. The steps for personalizing the desktop are :
  - (a) Right-click on the desktop.
  - (b) Select the "Personalization" option.
  - (c) Choose the desired background, theme or screen saver.
  - (d) Click 'Apply' and then 'OK'.
- 3. A file is a collection of data stored on a computer.  
To create a file, click on the desktop, select "New", choose a file type and name it.
- 4. Editing is a crucial function performed within a word processor, involving the correction and modification of text documents using various editing tools.

**Worksheet - 2**

**A. Tick (✓) the correct answer:**

- 1. (d)                      2. (c)
- 3. (b)                      4. (a)

**B. Fill in the blanks:**

- 1. delete
- 2. communication
- 3. visual
- 4. Looks

**C. Answer the following questions:**

1. ClipArt is a group of illustrations, symbols, paragraphs, videos and audios the remain available for computer users to insert into their document.
2. A search engine is a type of website designed to help users locate information on the world wide web.
3. To launch the Scratch applications :

(a) Click on Start.

(b) Click on Scratch.

4. We can change the color of a sprite in Scratch by using the "Change [color effect] by" block to change the color of a sprite.

**D. Match the following:**

- |      |      |
|------|------|
| 1. c | 2. d |
| 3. a | 4. b |



# Computer-5

## CHAPTER-1

### Evolution of Computers

#### Exercise

#### A. Tick (✓) the correct answer :

1. (a) Heaven
2. (b) Blaise Pascal
3. (a) Stepped Reckoner
4. (a) Mainframe computers
5. (d) Supercomputers

#### B. Fill in the blanks with the help of words given in the box below :

1. Tablet
2. 5000 years
3. Difference Engine
4. Microcomputer
5. Supercomputers

#### C. Distinguish between the following :

1. **Counting frame** : It is a simple wooden tool used for counting.

**Arithmetic Machine** : It was the first calculator developed by Blaise Pascal to perform addition and subtraction.

2. **Laptop** : A portable computer with a keyboard and screen.

**Tablet** : A small, light weight device with a touchscreen, and no physical keyboard.

3. **Mainframe computers** : Used in big offices and banks for storing large amount of data.

**Supercomputer** : Used for scientific research and solving complex problems very quickly.

#### D. Match the following columns :

1. (c), 2. (d), 3. (a), 4. (b)

#### E. Answer the following questions:

1. The counting frame was developed about 5000 years ago. It was commonly known as the Abacus. It had rods and beads in it and was the first calculating device. It was used for simple mathematical calculation such as addition, subtraction and multiplication.
2. Napier's bones was a device framed by John Napier in 1617, which was based on Rabdology. This device was more advanced than abacus as it allowed the users to perform division and calculate square roots.
3. Professor Howard Aiken made the first mechanical computer, named Mark 1, 1944. It was the first computer in real sense.
4. Microcomputers are of different types like desktops, laptops, and tablets. They are used at homes, schools, and offices.
5. Charles Babbage developed the Analytical Engine in the year 1833.

#### Art Integration

Do yourself.

## CHAPTER-2

### MS Word 2019: Page Layout and Hyperlinks

#### Exercise

#### A. Tick (✓) the correct answer :

1. (a) 4
2. (b) Landscape
3. (d) All of these
4. (a) Text box
5. (a) Symbols

**B. Fill in the blanks with the help of words given in the box below :**

1. Custom
2. Portrait
3. Header, Footer
4. A4, A5
5. picture

**C. State True (T) or False (F) :**

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

**D. Answer the following questions:**

1. In MS Word, page layout is a term used to describe how each page of your document will appear when printed.
2. The page margins in MS Word are: Top, Bottom, Left and Right.
3. Page orientation is the direction in which a document appears in printed form. The two types of a page orientation are portrait (vertical) and landscape (horizontal). An exam-scheme usually fits best in landscape orientation.
4. To insert a blank page in MS Word, go to the Insert tab and click on Blank Page option.
5. Symbols like  $\oplus$ ,  $\otimes$ ,  $\text{®}$ ,  $\clubsuit$  → and special characters like @, \$ and ©. They are used in documents to represent mathematical, legal, currency, and other special notations. They can be inserted through the Insert > symbol option.

**Art Integration**

Margin  
Header  
Layout  
Portrait  
Footer

**CHAPTER-3****MS Word : Working with Tables****Exercise****A. Tick (✓) the correct answer :**

1. (c) Both a and b
2. (c) three ways
3. (b) Split cell
4. (c) Merge cell
5. (d) All of these

**B. State True (T) or False (F) :**

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

**C. Match the following columns :**

1. (e), 2. (c), 3. (d), 4. (a), 5. (b).

**D. Answer the following questions:**

1. A table is a grid made up of rows and columns used to organize data in a document.
2. A cell is the intersection of a row and a column in a table where data entered.
3. Tab → Move to next cell :  
Shift + Tab → Move to previous cell  
Down Arrow → Move to one row down.
4. To split a cell :  
Select the cell → Right click → choose "Split Cells" → Enter the number of rows and columns → click OK.
5. To Merge Cells :  
Select four cells → Right click → choose "Merge cells" → The Selected cells will be combined into one.

**Art Integration**

Do yourself.

**CHAPTER-4****Introduction to Spreadsheets and MS Excel****Exercise****A. Tick (✓) the correct answer :**

1. (d) All of these
2. (b) B5
3. (b) Cell range
4. (d) All of these
5. (c) Letter, letters

**B. Fill in the blanks with the help of words given in the box below:**

1. data
2. column, row
3. active
4. cell pointer
5. workbook

**C. State True (T) or False (F) :**

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

**D. Match the following columns :**

1. (e), 2. (d), 3. (a), 4. (b), 5. (c).

**E. Answer the following questions:**

1. Electronic spreadsheets are computer applications used to organize, analyze, and store data in tabular form. They consist of rows and returns where data can be entered, calculated, and visually represented using charts and graphs, MS Excel is an example of an electronic spreadsheet.
2. The selected cell is termed as the Active cell or current cell. It is displayed with bold border that differentiates it from the rest of the cells. The highlighted box is known as the cell pointer. To select a cell, just click on it. To enter the data in a cell you first need to select it.

3. Each Excel file is called a workbook. It can hold several worksheets. The default workbook is Book 1.
4. (a) Quick Access Toolbar consists of commands that are repeatedly used like Save, Undo, Redo, Print, etc.  
(b) Cell range is a group of contiguous cells. A cell range name contains the cell address of the first cell, a colon and the last cell address. For example, B3 : C5.
5. Charts are visual representations of data in the form of graphs, such as bar charts, pie charts, and line charts. They are used in Excel to make data easier to understand and to highlight trends, comparisons, and patterns in the data.

**Art Integration**

Do yourself.

**CHAPTER-5****MS PowerPoint : Graphics****Exercise****A. Tick (✓) the correct answer :**

1. (c) Spaceship
2. (c) Middle
3. (a) Chart
4. (a) Axis
5. (b) Playback

**B. Fill in the blanks with the help of words given in the box below:**

1. formatting, presentation, pictorial
2. Tables
3. relation
4. Chart tool tab
5. Video

**C. Describe the use of the followig in PowerPoint 2019.**

1. **Chart** used to represent data visually in the form of bars, lines or pie diagrams, making it easier to understand.
2. **Smart Art** used to create diagrams such as cycles processes, or hierarchies to make information more engaging and clear.
3. **Picture** used to insert images from your computer or online sources to make slides more attractive and informative.
4. **Video** used to insert video clips which can help explain topics better or make the presentation more engaging.
5. **Icon and 3D Models** Icons are simple symbols that represent actions or objects. 3D models add depth and interactivity, helping to explain complex ideas visually.

**D. Answer the following questions:**

1. Slide layouts are the systematic arrangement and combination of all the objects on a slide. They contain formatting of text, presentation of tables, pictorial charts, SmartArt graphics, positioning of pictures, online pictures, video, icons and 3D Models.
  - (1) **Title Slide** : This is applied at the beginning of your presentation or to divide sections of your presentation.
  - (2) **Title and Content** : This functions as default. It is most commonly used slide layout and is used to give a topic and its content.
2. The steps to be followed for inserting table in MS PowerPoint are :
  - (1) Alternatively, click on insert tab.
  - (2) In Tables group, click on Table

button.

- (3) Insert Table option from the list.
  - (4) On Title and Content slide layout, click on Table icon. The insert table dialog box displays.
  - (5) Enter the required number of columns and click on OK button.
3. Smart Art Graphic is a visual representation of information that is used to communicate any message or idea effectively. It allows to communicate information with graphics instead of just using text.
  4. Icons and 3D Models are available with PowerPoint 2019 inbuilt form. Icons are used to communicate visually and 3D Models are objects that move in 3D space with height, width and depth, as the third dimensions.

**Write a short note on:**

- (a) Title and Content : This functions as default. It is most commonly used slide layout and is used to give a topic and its content.
- (b) Blank slide layout : A blank slide layout is mostly used when a picture or other graphic object that requires no further information, will be inserted to cover the whole slide.

**Art Integration**

Do yourself.

## CHAPTER-6

### MS PowerPoint : Animations and Transitions

**Exercise**

**A. Tick (✓) the correct answer :**

1. (c) Reorder animations
2. (b) By clicking Apply to All in the Transitions tab
3. (b) Review

4. (b) To arrange the order of slides
5. (a) Ctrl + P

**B. Fill in the blanks with the help of words given in the box below:**

1. slide
2. Animation
3. Slide Sorter view
4. outline
5. sound

**C. Write the procedure for the following tasks in Slide Sorter view:**

1. Double click the slide.
2.
  - Select a slide
  - Go to the Home tab
  - Click the copy button in the clipboard group.
3. Select the slide you want to move. Drag it to the new location.
4. Select the slide you want to duplicate. Press Ctrl + D.
5. Select the slide you want to delete. Press the Delete key.

**D. Answer the following questions:**

1. Animations in powerpoint are special visual or sound effects that can be applied to elements present on a slide such as text, shapes, images, icons, etc. In powerpoint, animations control how objects move onto, off of and around the different slides.
2. To add multiple animations to a single object :
  - (1) Select the object you want to animate.
  - (2) In the Animations tab, click on Add Animation.
  - (3) Choose another animation from the list.
  - (4) Use the Animation Pane to organize and reorder the

animations.

3. The Slide Sorter view is used to see all the slides in a presentation at once. It allows you to easily rearrange, delete, or organise slides by dragging and dropping them.
4. To check for spelling errors in PowerPoint go to the "Review" tab on the ribbon and click "Spelling". PowerPoint will scan the slides and suggest corrections for any spelling mistakes.
5. (1) Click on File > Print.  
(2) Under settings, choose Handouts from the print layout options.  
(3) Select the number of slides per page.  
(4) Click Print to generate the handouts.

**Art Integration**

Do yourself.

**CHAPTER-7**

**Internet Browser and Searching**

**Exercise**

**A. Tick (✓) the correct answer :**

1. (d) All of these
2. (b) Education
3. (c) Surfing
4. (a) Searching
5. (a) www.google.com

**B. Fill in the blanks with the help of words given in the box below:**

1. Internet
2. Web Browser
3. Searching
4. Enter
5. WWW

**C. Write few words about the following :**

1. Online education is a way of learning using the internet. Students attend classes and complete assignments from home using computers or mobile devices.
2. Video conferencing is a way to communicate with others using video and audio over the internet. It is used for online meetings and virtual classes.
3. An Internet browser is a software used to access websites on the internet. It helps users search for and view web pages.

**D. Answer the following questions:**

1. An Internet browser is a software used to access websites on the internet. It helps users search for and view web pages.
2. The types of Internet Browsers are : Skype, Mozilla Firefox, Safari, Google Chrome, Internet Explorer, Edge and more.
3. A Web Browser is the same as an internet browser. It is a software used to access and view websites.
4. Internet searching means finding information on the internet using a search engine like Google or Bing.

**Art Integration**

Do yourself.

## CHAPTER-8

### Programming with Scratch-I

**Exercise**

**A. Tick (✓) the correct answer :**

1. (c) Coordinates
2. (b) Surprise button
3. (b) Choose a Sprite
4. (b) Script areas
5. (c) Mitchel Resnick

**B. Fill in the blanks with the help of words given in the box below:**

1. block-based
2. sprite
3. Paint
4. Script area
5. glide

**C. State True (T) or False (F) :**

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

**D. Match the following columns :**

1. (c), 2. (a), 3. (b), 4. (d), 5. (e).

**E. Answer the following questions:**

1. To start a new script on Scratch, drag blocks from the block palette and snap them together in the coding area. The script usually starts with an event block like "when green."
2. (1) Open Scratch.  
(2) Click on "File" in the top menu.  
(3) Select "Load from your computer".  
(4) Choose the saved Scratch file from your device and click "Open".
3. The main components of the Scratch window are Stage, Sprite List, Blocks Palette, Script Area, Toolbar, Backdrop Area.
4. Cursor tools help you interact with the Scratch interface. Some cursor tools include :
  - Selector Tool : Used to select and move sprites or blocks.
  - Duplicate Tool : Creates a copy of a sprite or block.
  - Delete Tool : Removes a sprite or block.
  - Grow Tool : Makes a sprite bigger.
  - Shrink Tool : Makes a sprite smaller.

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5. Motion blocks are blue-colored blocks in Scratch that control the movement of a sprite. They help move the sprite forward, turn it, glide to a position, or change its position on the stage.

### Art Integration

Do yourself.

### Worksheet - 1

#### A. Tick (✓) the correct answer :

1. (a) Mainframe computers
2. (b) Landscape
3. (c) Both a and b
4. (d) All of these
5. (d) All of these

#### B. Fill in the blanks :

1. Tablet
2. custom
3. picture
4. column, row
5. column, row

#### C. State True (T) or False (F) :

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

#### D. Match the following columns :

1. (e), 2. (c), 3. (d), 4. (a), 5. (b).

#### E. Answer the following questions :

1. The counting frame was developed about 5000 years ago. It was commonly known as the Abacus. It had rods and beads in it and was the first calculating device. It was used for simple mathematical calculations such as addition, subtraction and multiplication.
2. Symbols like ☞, ⚙, ®, ♣ → and special characters like @, \$ and ©. They are used in documents to represent mathematical, legal, currency, and other special notations. They can

be inserted through the Insert > symbol option.

3. A cell is the intersection of a row and a column in a table where data is entered.

#### 4. To split a cell :

Select the cell → Right click → choose "Split Cells" → Enter the number of rows and columns → click OK.

5. (a) Quick Access Toolbar consists of commands that are repeatedly used like Save, Undo, Redo, Print, etc.  
(b) Cell range is a group of contiguous cells. A cell range name contains the cell address of the first cell, a colon and the last cell address. For example, B3 : C5.

### Art Integration

Do yourself.

### Worksheet - 2

#### Exercise

#### A. Tick (✓) the correct answer :

1. (c) Spaceship
2. (a) Axis
3. (b) To arrange the order of slides
4. (b) Education
5. (c) Mitchel Resnick

#### B. Fill in the blanks :

1. Chart tool tab
2. Animation
3. Web Browser
4. block-based
5. Script area

#### C. State True (T) or False (F) :

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

**D. Match the following columns :**

1. (c), 2. (a), 3. (b), 4. (d), 5. (e).

**E. Answer the following questions:**

1. Slide layouts are the systematic arrangement and combination of all the objects on a slide. They contain formatting of text, presentation of tables, pictorial charts, SmartArt graphics, positioning of pictures, online pictures, video, icons and 3D Models.
2. To add multiple animations to a single object :
  - (1) Select the object you want to animate.
  - (2) In the Animations tab, click on Add Animation.
  - (3) Choose another animation from the list.
  - (4) Use the Animation Pane to organize and reorder the animations.
3. An Internet browser is a software used to access websites on the

internet. It helps users search for and view web pages.

4. To start a new script on Scratch, drag blocks from the block palette and snap them together in the coding area. The script usually starts with an event block like "when green."
5. Cursor tools help you interact with the Scratch interface. Some cursor tools include :
  - Selector Tool : Used to select and move sprites or blocks.
  - Duplicate Tool : Creates a copy of a sprite or block.
  - Delete Tool : Removes a sprite or block.
  - Grow Tool : Makes a sprite bigger.
  - Shrink Tool : Makes a sprite smaller.

**Art Integration**

Do yourself.



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# Computer-6

## CHAPTER-1

### MS Word : Mail Merge

#### A. Tick (✓) the correct answer:

1. (c)      2. (a)      3. (d)  
4. (c)      5. (a)

#### B. Fill in the blanks :

1. sender
2. First Record, Last Record
3. Merge Field
4. Feed
5. Data Source

#### C. Tick (✓) the correct statement and cross (X) out the wrong one:

1. ✓      2. X      3. ✓  
4. ✓      5. ✓      6. X

#### D. Answer the following questions:

1. Mail Merge in MS Word is used to create documents like letters, emails, or labels for multiple recipients, with personal information like name, address, and contact number automatically added. It saves time by allowing users to avoid writing each recipient's details individually.
2. (i) Main Document: The main document contains the common data or content that needs to be sent to multiple recipients. It acts as a template for the final documents.  
(ii) Merged Document: The merged document is the final output created by combining the Main Document with the Data Source. Each merged document contains personalized information for each recipient.

3. (i) Place the cursor where you want to insert the merge field in the main document. (ii) Click on the Mailings tab and select Insert Merge Field. (iii) Choose the required field (like name, address, etc.) from the list. (iv) Repeat the process for each field that needs to be merged.
4. (i) Click on the Mailings tab. (ii) In the Preview Results section, click on the Preview Results button to see the merged data. (iii) Click on Finish & Merge. (iv) Select Edit Individual Documents. (v) In the Merge to Printer dialog box, click OK to create a single merged document containing all recipients' data.
5. 1. Go to the Mailings tab and click on Envelopes in the Create group. 2. In the Envelopes and Labels dialog box, enter the delivery and return addresses. 3. Click on the Feed button to set envelope options like size and text formatting. 4. Set the printer feed method in the Printing Options tab. 5. Click OK in the Envelope Options dialog box. 6. Finally, click the Print button in the Envelopes and Labels dialog box to print the envelopes.

#### Assertion Reason Questions

1. (b)      2. (a)

#### Source Based Questions

1. Mail Merge is a feature that allows users to create documents that are basically the same but include unique elements such as recipient's name, address, or other personal details.

2. Mail Merge allows users to quickly create personalized documents for multiple recipients by automatically inserting their personal information into a standard document.
3. The personal information will be automatically added to the main document. The benefit is that it saves time and effort, as we don't have to manually enter each recipient's information for every individual document.

### Art Integration

Do yourself.

## CHAPTER-2

### MS Excel : Function and Formulas

- A. Tick (✓) the correct answer:**
1. (b)      2. (a)      3. (a)
  4. (b)      5. (d)
- B. Fill in the blanks :**
1. Windows
  2. worksheets and charts
  3. clear contents
  4. Insety > comments
  5. Auto Sum
- C. Tick (✓) the correct statement and cross (X) out the wrong one:**
1. ✓      2. ✓      3. ✓
  4. ✓      5. ✓
- D. Answer the following questions:**
1. Five formatting tools available on Home tab in Excel are: Bold, Italic, Font color, Fill color, Merge & center.
  2. A formula is an equation that performs a calculation. Like a calculator, Excel can execute formulas for addition, subtraction, multiplication, and division.
- 3. The rules to write a formula in Excel are :**
1. An equal sign must be at the start of each formula.
  2. There must be an operator(s) to operate on the data.
  3. The data which can be text, numbers, date, time, or a cell address.
- 4. To apply a colorful border to a cell in a worksheet are :**
1. Select the cell.
  2. Right-click and choose 'Format cells'.
  3. Go to the 'Border' tab.
  4. Choose the color and style.
  5. Apply border to desired sides and click OK.
- 5. The functions of Alignment and Font tab buttons in Format Cells dialog box:**
- Alignment tab: Align text, set orientation, wrap text, merge cell etc.
- Font tab: Change font style, size, color, effects (bold, underline), etc.
- 6. Operators used for arithmetic calculations in Excel:**
- Addition (+)
  - Subtraction (-)
  - Multiplication (\*)
  - Division (/)
  - Exponentiation (^)
- 7. Purpose of formatting in Excel :**
- To enhance the appearance and readability of data
  - To differentiate and highlight important information
  - To make data more presentable and professional
- Assertion Reason Questions**
1. (a)      2. (e)
- Source Based Questions**
1. Equal sign (=)      2. Plus sign (+)
  3. Asterisk (\*)

**Art Integration**

Do yourself.

**CHAPTER-3**

**MS Excel : Using Charts to Present Data**

**A. Tick (✓) the correct answer:**

1. (b)      2. (b)      3. (d)  
4. (a)      5. (b)

**B. Fill in the blanks :**

1. F11                      2. items  
3. tools                    4. interconnected

**C. Tick (✓) the correct statement and cross (X) out the wrong one:**

1. ✓            2. ✓            3. ✓  
4. ✓            5. ✓            6. ✓

**D. Answer the following questions:**

- A chart in MS Excel is graphical representation of data that helps to visualize numerical information for better understanding and comparison.
- There are various types of charts in MS Excel: 1. Column Chart: Displays data in vertical bars. 2. Bar Chart: Displays data in horizontal bars. 3. Line Chart: Shows the trends over time using lines. 4. Pie Chart: Represents data as slices of a circle. 5. Funnel Chart: Shows stages in a process or progress. 6. Area Chart: Emphasizes the magnitude of values over time.
- Steps to move a chart on the worksheet: 1. The mouse pointer transforms into a moving handle when you point it anywhere on the chart. 2. Click and drag the chart to a new location.

- The steps to change chart style in a worksheet: 1. Select the chart. 2. Go to the "Chart Tools" section on the Ribbon. 3. Click on the Design tab. 4. Choose a style from the chart styles group.
- Resize: Click the chart, then drag the handles on the corners.  
Move: Click and drag the chart to a new location.  
Print: Go to "File > Print" and ensure the chart is within the print area.
1. Go to the Insert tab. 2. Click on Pictures. 3. Choose This Device or Online Pictures. 4. Select the picture and click Insert.

**Assertion Reason Questions**

1. (c)                      2. (b)

**Source Based Questions**

1. Columns chart  
2. Pie chart              3. Bar chart

**Art Integration**

Do yourself.

**CHAPTER-4**

**Image Processing Basic with GIMP**

**A. Tick (✓) the correct answer:**

1. (d)      2. (b)      3. (a)  
4. (a)      5. (c)

**B. Fill in the blanks :**

1. spray paint      2. Ellipse  
3. Layers            4. scale tool  
5. Smudge tool

**C. Tick (✓) the correct statement and cross (X) out the wrong one:**

1. ✓            2. ✓            3. ✓  
4. X            5. X

**D. Answer the following questions:**

1. GIMP is a freeware and open-source graphic editing tool. It is an acronym of GNU Image Manipulation Program. This software is used for image editing and retouching, freeform drawing, converting images into different formats, and for more specialized work.
2. (a) Text Tool – to add text on the image.  
(b) Brush – Used for freehand painting.  
(c) Pencil – Used for drawing hard lines.  
(d) Smudge – Used to smudge colors, creating a blur.  
(e) Gradient – Used to fill with a blend of colors.
3. Five major parts of GIMP window are: 1. Toolbox 2. Menu Bar 3. Docks or Dialogs Area 4. Canvas or Image 5. Status Bar
4. Three properties of GIMP tools are: 1. Opacity – Controls the transparency of the tool effect. 2. Size – Adjusts the size of the brush or tool. 3. Hardness – Determines how soft or sharp the brush edges are.
5. Filters are special effects that can be applied to an image or a selected region.

Filters enhance the look of the image. They are organized in several categories, available as submenus under the Filters menu.

**Assertion Reason Questions**

1. (a)
2. (b)

**Source Based Questions**

1. GIMP is a freeware and open-source graphic editing tool.

2. GNU Image Manipulation Program
3. GIMP is used for image editing, retouching, converting images into different formats, and performing advanced graphic work.

**Art Integration**

Do yourself.

**CHAPTER-5****Internet : Communication and Social Platforms****A. Tick (✓) the correct answer:**

1. (a)
2. (c)
3. (c)
4. (b)
5. (c)

**B. Fill in the blanks :**

1. online chatting
2. Google
3. chat
4. face-to-face
5. blogger

**C. Answer the following questions:**

1. The term 'online' refers to computers that are connected to a network or other devices. The internet offers a variety of services that make our work faster and easier.
2. The advantages of videoconferencing are: (i) It reduces travel expenses. (ii) It improves communication. (iii) It saves time and money. (iv) It allows more people at different locations to participate.
3. A blog is an online personal diary or informative article on a specific topic. It can be updated frequently. The articles that are uploaded on a blog are called posts. It is a place where you express your thoughts and ideas to the world. A blog is usually open to the public, which means that anyone can read it.

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Yes, blogs can contain pictures, audio, and videos.

4. Advantages and dis-advantages of e-commerce are:

**Advantages:** 1. It can be done round the clock. 2. Online shopping is convenient. 3. The item will be delivered directly to your home. 4. The price and quality comparison of products and services is possible. 5. Easily pay through credit/debit card while shopping online.

**Disadvantages:** 1. Users can't avail themselves of offer warranties and guarantees for things purchased online. 2. One cannot feel or touch items. 3. Despite how secure the website promises to be, a key disadvantage is the security of credit cards. 4. Returning an item online is also a cumbersome process than in local stores. Assertion Reason Questions

1. (a)                      2. (b)

### Source Based Questions

1. Mohit recently came to know about the internet.
2. The internet offers a variety of services that make our work faster and easier.
3. Google, Yahoo! and Bing

### Art Integration

Do yourself.

## CHAPTER-6

### Introduction to Cloud Computing

#### A. Tick (✓) the correct answer:

1. (b)                      2. (a)                      3. (c)  
4. (b)                      5. (d)                      6. (d)

#### B. Fill in the blanks :

1. internet                      2. Google Drive
3. Cloud computing
4. local
5. Cloud computing

#### C. Tick (✓) the correct statement and cross (X) out the wrong one:

1. X                      2. X                      3. ✓  
4. ✓                      5. X

#### D. Answer the following questions:

1. Cloud computing is becoming more popular for delivering services over both public and private networks. The term "cloud" refers to the combination of hardware, network, storage interfaces, and services that deliver various aspects of computing as a service over a network.

The term "cloud" is used here as a metaphor for how traditional methods of sharing audio, video, and photographs have become obsolete with the advent of cloud computing.

2. Two examples of cloud storage services are: Google Drive and Dropbox.
3. The benefits of using cloud computing are: 1. Speed 2. Global Scale 3. Low Cost 4. Increased Productivity 5. Enhanced Performance 6. Security 7. Reliability
4. Any internet-connected device like a laptop, smartphone, or tablet is needed to use cloud computing.
5. Cloud computing helps save space on our device by storing files online instead of on your device, freeing up local storage space.

#### Assertion Reason Questions

1. (a)                      2. (d)

**Source Based Questions**

Cloud computing is useful for students because it allows them to upload and access their homework, projects, and notes from any device with an internet connection. This makes studying more flexible and helps in sharing work with teachers and classmates easily.

**Art Integration**

Do yourself.

**CHAPTER-7****Programming With Scratch****A. Tick (✓) the correct answer:**

1. (c)                      2. (c)  
3. (b)                      4. (d)

**B. Fill in the blanks :**

1. 18  
2. Pen block  
3. sound  
4. Import  
5. purple, appearance

**C. Tick (✓) the correct statement and cross (X) out the wrong one:**

1. X                      2. X                      3. X  
4. ✓                      5. X

**D. Answer the following questions:****1. Motion Blocks :**

(a) Motion blocks are blocks of code that allow you to control the movement of your sprites.

(b) You can use motion blocks to move sprites around the stage, change their direction, and make them bounce off the edges of the stage.

**Looks Blocks:**

(a) Looks are the blocks of code that

allow you to change the appearance of your sprites.

(b) You can use looks blocks to change the sprite's color, size and appearance.

2. A variable is a changeable value recorded in Scratch's memory. Variables can only hold one value at a time. Variables block allows us to store data, like scores or timers, that can change while the program is running.

3. Operators contain blocks like: (a) Arithmetic Operators (+, -, \*, /) (b) Relational Operators (>, <) (c) Boolean Operators (and, or, not)

There are 18 Operators blocks in Scratch.

4. We can import a sound file or record a new sound using the Scratch sound recorder.

5. Use Repeat block for actions that need to happen a certain number of times and Forever block for continuous actions.

6. Yes, we can change backdrops in a sequence to create background animations.

**Assertion Reason Questions**

1. (c)                      2. (c)

**Source Based Questions**

1. They are one of the eight categories of scratch blocks, color-coded light blue.

2. They detect mouse location, sprite distance, and touch detection.

3. There are 18 sensing blocks.

**Art Integration**

Do yourself.

## CHAPTER-8

### Artificial Intelligence: Introduction

**A. Tick (✓) the correct answer:**

1. (d)      2. (d)      3. (d)  
4. (b)      5. (d)

**B. Tick (✓) the correct statement and cross (X) out the wrong one:**

1. ✓      2. ✓      3. ✓  
4. ✓      5. ✓

**D. Answer the following questions:**

- (a) Human Intelligence is a mental attribute that includes the capacity to learn from experience, adapt to new conditions, comprehend and handle abstract concepts, and manipulate one's surroundings using knowledge.  
(b) Artificial Intelligence is the ability of a digital computer or computer-controlled robot that can perform tasks generally associated with intelligent beings.
- The phrase "Artificial Intelligence" was coined by John McCarthy (1927–2011), an American computer scientist and cognitive scientist. He was a pioneer in the field of Artificial Intelligence. John McCarthy is considered one of the "founding fathers" of artificial intelligence.
- NITI Aayog is a policy think tank of the Government of India that promotes economic development. It has created a national strategy to promote AI for inclusive growth in sectors like health, agriculture and education.
- Artificial Intelligence (AI) is a technology that has been around

since the 1950s. Some markets, industries, and businesses are further advanced than others, because AI is still in its early stages of development. There are many opportunities for additional development and enhancement in terms of both the range of possible applications and the quality of most existing implementations.

- Artificial intelligence is needed to automate repetitive tasks, improve efficiency, solve complex problems, and assist in decision making in areas like healthcare, education and industries.

#### Assertion Reason Questions

1. (a)      2. (d)

#### Source Based Questions

- John McCarthy
- Artificial Intelligence
- AI refers to the simulation of human intelligence in machines programmed to think and act like humans.

#### Art Integration

Do yourself.

## CHAPTER-9

### Animation with TupiTube

**A. Tick (✓) the correct answer:**

1. (a)      2. (d)      3. (b)  
4. (c)      5. (a)

**B. Fill in the blanks :**

- scenes
- frame
- drawings
- Tween
- animation

C. Tick (✓) the correct statement and cross (X) out the wrong one:

1. ✓      2. ✓      3. X  
4. X      5. ✓

D. Answer the following questions:

1. Animation is a set of several drawings shown in sequence at high speed to create the illusion of movement.
2. The two ways by which animation can be done are: 1. Frame-by-Frame animation: Each frame has a unique drawing. 2. Tweening: Intermediate frames are automatically generated between two drawings.
3. A Motion Tween can be created by setting the starting and ending positions of a drawing, and the software fills in the in-between frames.
4. **To save animation:** Go to File menu > Save options to save your TupiTube project.
5. (a) Frame: A single image in a sequence of animation.  
(b) Stage: The main working white area in the center. Drawings and graphics are created here. It is also used to apply animations.  
(c) Stage toolbar: It contains buttons to apply some actions on stage such as full screen, clear the stage, reset stage size, etc.  
(d) Exposure sheet: A sheet that organizes the timing of drawings and frames in an animation.

#### Assertion Reason Questions

1. (a)      2. (d)

#### Source Based Questions

1. Animation is a set of several drawings kept in a sequence at high speed to create the illusion of movement.

2. Multiple scenes together make up an animated story.
3. Tapi Tube allows you to create multiple scenes, each with its own frames and layers.

#### Art Integration

Do yourself.

## Worksheet

A. Tick (✓) the correct answer:

1. (d)      2. (d)      3. (d)  
4. (a)      5. (d)      6. (d)

B. Fill in the blanks :

1. sender
2. interconnected
3. Ellipse
4. internet
5. 18
6. scenes

C. Tick (✓) the correct statement and cross (X) out the wrong one:

1. ✓      2. ✓      3. ✓  
4. X      5. X      6. ✓

D. Answer the following questions:

1. 1. Click on the Mailings tab. 2. In the Preview Results section, click on the Preview Results button to see the merged data. 3. Click on Finish & Merge. 4. Select Edit Individual Documents. 5. In the Merge to Printer dialog box, click OK to create a single merged document containing all recipients' data.
2. A formula is an equation that performs a calculation. Like a calculator, Excel can execute formulas for addition, subtraction, multiplication, and division.

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3. Five major parts of GIMP window are: 1. Toolbox 2. Menu Bar 3. Docks or Dialogs Area 4. Canvas or Image 5. Status Bar
4. Cloud computing is becoming more popular for delivering services over both public and private networks. The term "cloud" refers to the combination of hardware, network, storage interfaces, and services that deliver various aspects of computing as a service over a network.

The term "cloud" is used here as a metaphor for how traditional methods of sharing audio, video, and photographs have become obsolete with the advent of cloud computing.

5. A variable is a changeable value recorded in Scratch's memory. Variables can only hold one value at a time. Variables block allows us

to store data, like scores or timers, that can change while the program is running.

6. NITI Aayog is a policy think tank of the Government of India that promotes economic development. It has created a national strategy to promote AI for inclusive growth in sectors like health, agriculture and education.

**Assertion Reason Questions**

1. (a)
2. (c)

**Source Based Questions**

1. Mohit recently came to know about the internet.
2. The internet offers a variety of services that make our work faster and easier.
3. Google, Yahoo! and Bing



# Computer-7

## CHAPTER-1

### Computers and Computer Languages

#### A. Tick (✓) the correct answer:

1. (a)      2. (d)      3. (c)  
4. (a)      5. (d)      6. (a)  
7. (b)

#### B. Fill in the blanks :

1. Software      2. program  
3. system software  
4. operating system  
5. machine

#### C. Tick (✓) the correct statement and cross (X) out the wrong one:

1. X      2. ✓      3. X  
4. ✓      5. ✓

#### D. Match the following:

1. (d)      2. (e)      3. (c)  
4. (a)      5. (b)

#### E. Answer the following questions:

1. The different types of computers are:
- Microcomputers
  - Mini Computers
  - Embedded Computers
  - Game Consoles
  - Mainframe Computers
  - Mobile Computers
  - Supercomputers
2. Software is a collection of programs with no physical presence. It is stored in digital form within a computer's memory and enables the

user to interact with the computer and perform tasks.

The various kinds of software are:

- System Software (e.g., Operating System, Compiler, Assembler)
- Application Software (e.g., Word Processor, VLC Player)
- Utility Software (e.g., Antivirus, Disk Cleanup)

#### 3. Compiler :

- Takes the entire program in one go.
- Generates intermediate machine code.
- Best suited for production environments.
- Used in languages like C, C++, Java.

Interpreter :

- Takes a single line of code at a time.
- Does not generate any intermediate code.
- Best suited for software development.
- Used in languages like Python, PHP, Ruby.

#### 4. (a) • Embedded as a chip inside another device.

- Programmed for specific functionality.
- Contains all parts of a computer (CPU, memory, input/output).
- Performs limited, dedicated tasks only.

#### (b) • Fastest among all types of computers.

- Contains multiple CPUs and GPUs.

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- Has very high computing power and memory.
  - Used for scientific, engineering, and research applications.
- (c) • **Use single-chip processors (microprocessors).**
- Support single user.
  - Small in size and cost-effective.
  - Used for learning, games, media applications, etc.
- (d) • **Very powerful with large memory and multiple CPUs.**
- Supports many users and can run multiple operating systems.
  - Used in large organizations for critical applications like census or data processing.
5. An assembler is a program that converts assembly language (low-level code using mnemonics) into machine code (binary instructions) that a computer's CPU can understand and execute.
6. Assembly language was easier than first-generation machine language because it used mnemonic codes (letters and symbols) instead of binary digits (0s and 1s), making it more readable and easier to program.
7. Fifth generation languages (5GL) are based on problem-solving using constraints rather than step-by-step algorithms. These languages focus on Artificial Intelligence (AI) and are designed to work more like human reasoning.

Examples include: Prolog, MERCURY, OPSS.

They are used in AI systems, natural language processing, and expert systems.

**Assertion Reason Questions**

1. (b)                      2. (c)

**Source Based Questions**

1. Software is a collection of programs with no physical presence.
2. They are stored in digital form within computer memory to effectively access or operate a computer.
3. Software is classified into two types:  
(a) System Software  
(b) Application Software

**Art Integration**

Do yourself.

## CHAPTER-2

### Binary Number System

**A. Tick (✓) the correct answer:**

1. (b)            2. (a)            3. (a)  
4. (b)            5. (a)            6. (d)

**B. Fill in the blanks :**

1. decimal            2. 10°  
3. binary            4. base-2  
5. machine language

**C. Tick (✓) the correct statement and cross (X) out the wrong one:**

1. X            2. X            3. ✓  
4. ✓            5. ✓

**D. Answer the following questions:**

1. A binary number system is one of the four types of number systems. In computer applications, binary numbers are represented by only two symbols or digits, i.e. 0 (zero) and 1 (one). The binary numbers here are expressed in the base-2 numeral system.
2. A single binary number is called a Binary digit or bit.

3. The successive division method is used to convert decimal to binary integers. In this method, Simply divide the decimal number by 2. The quotient becomes the dividend. The remainder becomes one bit of the binary number, least significant digit first.

Example: 4 in binary =  $(100)_2$

4. Binary numbers are used to represent all kinds of data in computers using only 0s and 1s. Computers operate using machine language, which is based on the binary number system.

5. Using division method:

$$163 \div 2 = 81 \text{ remainder } 1$$

$$81 \div 2 = 40 \text{ remainder } 1$$

$$40 \div 2 = 20 \text{ remainder } 0$$

$$20 \div 2 = 10 \text{ remainder } 0$$

$$10 \div 2 = 5 \text{ remainder } 0$$

$$5 \div 2 = 2 \text{ remainder } 1$$

$$2 \div 2 = 1 \text{ remainder } 0$$

$$1 \div 2 = 0 \text{ remainder } 1$$

So, binary of 163 = 10100011.

6. Using division method:

$$200 \div 2 = 100 \text{ remainder } 0$$

$$100 \div 2 = 50 \text{ remainder } 0$$

$$50 \div 2 = 25 \text{ remainder } 0$$

$$25 \div 2 = 12 \text{ remainder } 1$$

$$12 \div 2 = 6 \text{ remainder } 0$$

$$6 \div 2 = 3 \text{ remainder } 0$$

$$3 \div 2 = 1 \text{ remainder } 1$$

$$1 \div 2 = 0 \text{ remainder } 1$$

So, binary of 200 = 11001000

#### Assertion Reason Questions

1. (e)      2. (a)

#### Source Based Questions

Ashu can use the successive division method to convert 6 into binary.

$$6 \div 2 = 3, \text{ remainder} = 0$$

$$3 \div 2 = 1, \text{ remainder} = 1$$

$$1 \div 2 = 0, \text{ remainder} = 1$$

Now writing the remainders in reverse order: 110

So, the binary of 6 is 110.

#### Art Integration

Do yourself.

## CHAPTER-3

### Introduction to HTML

- A. Tick (✓) the correct answer:

1. (c)      2. (d)      3. (c)

4. (a)      5. (b)      6. (b)

- B. Fill in the blanks :

1. <h6>

2. HTML editor

3. Hyper Text Markup Language

4. opening, closing

5. Chrome, Firefox

6. forward slash (/)

- C. Tick (✓) the correct statement and cross (X) out the wrong one:

1. ✓      2. X      3. ✓

4. X      5. X

- D. Answer the following questions:

1. HTML or Hypertext Markup Language is used for creating web pages and web applications. It describes the structure of a web page and consists of a series of elements that tell the browser how to display the content.

2. The tag used for making the text bold is <b>.

3. • The <b> tag specifies bold text. It is a container tag and has an opening and closing tag.

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- The `<br>` tag inserts a line break. It is an empty tag and does not have a closing tag.
4. HTML headings are defined with the `<h1>` to `<h6>` tags.
- Example:
- ```
html
CopyEdit
<h1>This is the largest heading</h1>
<h6>This is the smallest heading</h6>
```
5. • A container tag has both an opening and a closing tag (e.g., `<b>...</b>`)
- An empty tag does not have a closing tag (e.g., `<br>`)

6. html

```
CopyEdit
<html>
<head>
<title>My First HTML Project</title>
</head>
<body>
</body>
</html>
```

### Assertion Reason Questions

1. (a)                      2. (d)

### Source Based Questions

1. Hyper Text Markup Language
2. HTML is the standard markup language for creating Web pages. HTML describes the structure of a Web page and consists of a series of elements. These elements tell the browser how to display the content.
3. Tim Berners-Lee

### Picture Based Questions

1. Edge, Firefox, Chrome, Safari, Opera
2. Yes

### Art Integration

Do yourself.

## CHAPTER-4

### Website Designing Using HTML

#### A. Tick (✓) the correct answer:

1. (a)                      2. (d)                      3. (c)  
4. (a)                      5. (b)

#### B. Fill in the blanks :

1. Comments              2. description list  
3. Ordered                4. href  
5. internal link

#### C. Tick (✓) the correct statement and cross (X) out the wrong one:

1. ✓                      2. X                      3. X  
4. ✓                      5. X

#### D. Answer the following questions:

1. The comment tag is used to insert comments in the source code. Comments are not displayed in the browsers. HTML comments are visible to anyone that views the page source code, but are not rendered when the HTML document is rendered by a browser.
2. There are two kinds of links in HTML:
  - External Link: Linked to an external web page.
  - Internal Link: Linked within the same web page.
3. The image can be stored in any folder of your computer or it may be a link to a webpage.
4. To insert image in an HTML page, use the `<img>` tag. It is an empty tag, containing only attributes.

Example:

html

CopyEdit

```

```

5. The HTML anchor tag defines a hyperlink that links one page to another page, it can create hyperlink to other web page as well as files, location, or any URL.
6. • An ordered list can be numerical or alphabetical. It is used when the items must be in a particular order.
- A bulleted list is an unordered list. It is used when the items are not in any particular order.

### Assertion Reason Questions

1. (a)
2. (b)

### Source Based Questions

To insert an image in an HTML page, Sohit should use the <img> tag. It is an empty tag and should be placed inside the <body> tag.

Example:

html

CopyEdit

```

```

### Art Integration

Do yourself.

## CHAPTER-5

### Flow Charts and Algorithms

#### A. Tick (✓) the correct answer:

1. (a)
2. (a)
3. (a)
4. (a)
5. (d)

#### B. Fill in the blanks :

1. algorithm
2. computer programmes
3. flowchart
4. arrows
5. man

#### C. Tick (✓) the correct statement and cross (X) out the wrong one:

1. X
2. ✓
3. ✓
4. ✓
5. X

#### D. Match the following:

1. (e)
2. (c)
3. (d)
4. (b)
5. (a)

#### E. Answer the following questions:

1. An algorithm is simply a set of steps used to complete a specific task. They're the building blocks for programming.
2. A flowchart is a diagrammatic representation of an algorithm, in which different steps are shown as symbols of different shapes connected by arrows.
3. • Difficulty in presenting complex programs and tasks.
  - No scope for alteration or modification.
  - Reproduction becomes a problem
  - It's a time-consuming process.
  - Difficult to understand for people who don't know flowchart symbols.
  - No man to computer communication.
4. Characteristics of a good algorithm include:
  - Input
  - Output
  - Definiteness
  - Effectiveness
  - Termination

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- |               |                                   |
|---------------|-----------------------------------|
| 5. Symbol     | <b>Function</b>                   |
| Oval          | <b>Start or End point</b>         |
| Arrow         | <b>Shows direction of flow</b>    |
| Parallelogram | <b>Represents input or output</b> |
| Rectangle     | <b>Represents a process</b>       |
| Diamond       | <b>Represents a decision</b>      |
6. • Mistakes can be easily identified.  
• Communication becomes effective and easy to understand.

#### Assertion Reason Questions

1. (a)      2. (b)

#### Source Based Questions

Surbhi should follow these steps:

#### Algorithm:

1. START
2. Read temperature in Celsius, C
3. Convert to Fahrenheit using  $F = 9/5 \times C + 32$
4. IF  $C = 37$  THEN PRINT "Body temperature is normal" ELSE PRINT "Body temperature is not normal"
5. STOP

#### Flowchart:

- Start
- Input C
- $F = 9/5 \times C + 32$
- Is  $C = 37$ ?
  - Yes → Print "Body temperature is normal"
  - No → Print "Body temperature is not normal"
- Stop

#### Art Integration

Do yourself.

## CHAPTER-6

### Future of AI and Rise of New Technology

#### A. Tick (✓) the correct answer:

1. (b)      2. (a)      3. (a)  
4. (a)      5. (a)

#### B. Fill in the blanks :

1. Virtual mannequin
2. Journalists      3. AR, VR
4. virtual reality
5. Augmented Reality

#### C. Tick (✓) the correct statement and cross (X) out the wrong one:

1. X      2. ✓      3. ✓  
4. ✓      5. ✓

#### D. Answer the following questions:

1. Artificial Intelligence is a machine that can solve problems that humans perform using natural intelligence.
2. Augmented Reality (AR) is an enhanced version of the real physical world that is achieved through the use of digital visual elements, sound, or other sensory stimuli delivered via technology.
3. Pokemon Go, Snapchat, Google Maps.
4. • AR uses a real-world setting, while VR is completely virtual.  
• AR users can control their presence in the real world; VR users are controlled by the system  
• VR requires a headset device, but AR can be accessed with a smartphone.  
• AR enhances both the virtual and real world while VR only enhances a fictional reality.

5. AI applications in healthcare can change patients' lives, improving diagnostics and treatment, and helping patients and the healthcare provider make informed medical decisions quickly.
6.
  - Turn on and off lights, gadgets, and monitor surveillance systems.
  - Customized schedules like turning on coffee machines, lights, fans.
  - Voice-command smart assistants.
  - Remote lock control, smoke and temperature detection.

### Assertion Reason Questions

1. (c)
2. (c)

### Source Based Questions

1. Virtual Reality is something that does not exist physically but can be visualised and experienced.
2. Virtual reality enables the creation of real-life simulations in order to provide users with an immersive experience that makes them feel as if they are actually interacting with the digital environment around them.
3. Car racing games.

### Picture Based Questions

1. A smart home voice assistant / AR device (such as Amazon Alexa or Google Glass).
2. It performs tasks through voice commands such as controlling home appliances setting reminders, accessing news or media.

### Art Integration

Artificial Intelligence will transform our daily lives by automating homes, personalizing services, improving healthcare, enhancing transportation, and creating smart environments. My mural shows robots cleaning

streets, autonomous vehicles on the road, drones delivering packages, and homes managed by voice assistants - all showing the AI-powered future.

## CHAPTER-7

### Basic of Python

#### A. Tick (✓) the correct answer:

1. (a)
2. (b)
3. (a)
4. (a)
5. (a)

#### B. Fill in the blanks :

1. General Public License
2. interpreted
3. Guido Van, Rossum
4. single (' ') double (" "), triple ("' ")
5. Prompt

#### C. Tick (✓) the correct statement and cross (X) out the wrong one:

1. ✓
2. ✓
3. X
4. ✓
5. ✓

#### D. Answer the following questions:

1. Python is a high-level, interpreted, general-purpose programming language. Its design philosophy emphasizes code readability with the use of significant indentation.
2.
  - Python is high-level and open-source
  - It is interpreted and case-sensitive
  - It uses indentation for blocks
  - It supports multiple paradigms
  - It has a large standard library
  - It is portable and platform agnostic
3. Python is an interpreted language.
4. Script mode allows writing Python code in a file which can be saved and executed later.

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Steps:

- Step-1: Open IDLE
- Step-2: Click File → New File
- Step-3: Write and save file with **.py extension**
- Step-4: Run via Run > Run Module

5. PEP 8 is a set of rules in Python.
6. The print () function is used to display result on screen.

**Assertion Reason Questions**

1. (c)
2. (a)

**Source Based Questions**

1. Syntax refers to the rules that define the structure of a language.
2. Syntax in computer programming means the rules that control the structure of the symbols, punctuation, and words of a programming language.
3. Syntax errors are mistakes in the source code, such as spelling and punctuation errors, incorrect labels, and so on, which cause an error message to be generated by the compiler.

**Art Integration**

Understanding variables, data types, and syntax is essential to write correct Python code.

- Variables store values and help in reusing data.
- Data Types define the kind of data stored (number, string, list, etc.).
- Syntax ensures proper structure and execution of code.

My infographic includes icons for:

- Variables (a name box),
- Data Types (number, text, list symbols),

- Syntax (error alerts and correct format), demonstrating their role in building effective Python programs.

**CHAPTER-8**

**More About Python**

**A. Tick (✓) the correct answer:**

1. (d)
2. (c)

**B. Fill in the blanks :**

1. elif
2. Python
3. else if
4. While
5. extension

**C. Answer the following questions:**

1. • The if statement executes a block of code only when a condition is true.  
• The if...else statement provides an alternative block of code when the condition is false.
2. Students should draw a flowchart with multiple conditions: if → elif → else, showing different branches based on condition checks.
3. A while loop repeats a block of code as long as the condition is true.

Example:

```
python
CopyEdit
num = 1
while num < 5:
    print(num)
    num = num + 1
```

4. You get an infinite while loop when the condition never becomes false.

Example:

```
python
CopyEdit
while True:
    print("This will run forever.")
```

**Assertion Reason Questions**

1. (a)                      2. (c)

**Case Based Questions**

Aman can write a Python program using a while loop to print numbers less than 20.

```
python
CopyEdit
num = 1
while num < 20:
    print(num)
    num = num + 1
```

**Art Integration**

**Reflection :** The comic strip can show a character named Zara learning Python for a school competition. She struggles to understand conditions and loops, but with practice and examples, she learns how to write if, else, and while statements. Through trial and error, she overcomes her confusion, writes a working program, and wins the coding contest.

**Key Lessons:** Understanding logic, persistence in debugging, and the power of structured code with loops and conditionals.

**CHAPTER-9****Deep Dive into the Internet of Things (IoT)****A. Tick (✓) the correct answer:**

1. (b)                      2. (b)  
3. (c)                      4. (c)  
5. (b)

**B. Fill in the blanks :**

1. IoT                      2. connectivity  
3. Fitbit                      4. proximity  
5. healthcare

**C. True or False :**

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

**D. Answer the following questions:**

- The Internet of Things (IoT) is a system of interrelated devices that connect to the internet and exchange data to perform tasks automatically without human involvement.
- Fitbit: A wearable device that tracks heart rate, steps, and sleep patterns.  
Nest Thermostat: A smart thermostat that adjusts temperature automatically based on user preferences.
- A smart thermostat uses sensors to monitor temperature and adjust settings automatically to save energy based on user behaviour and preferences.
- Data analytics processes and analyzes data collected from IoT devices to provide insights, detect trends, and enable smart decisions.
- IoT in smart cities helps manage traffic flow, control street lighting, monitor air quality, and improve public services by collecting and analyzing real-time data.

**Assertion Reason Questions**

1. (a)                      2. (e)

**Source Based Questions**

- IoT sensors monitor soil conditions to help optimize the use of water and fertilizers.
- Wearable devices track a patient's vital signs and alert doctors to any abnormalities.

**Art Integration**

Do yourself.

## Worksheet

### A. Tick (✓) the correct answer:

1. (a)      2. (b)      3. (a)  
4. (a)      5. (a)      6. (b)

### B. Fill in the blanks :

1. program      2. binary  
3. internal link  
4. computer programs  
5. virtual reality    6. Python

### C. Tick (✓) the correct statement and cross (X) out the wrong one:

1. X      2. ✓      3. X  
4. ✓      5. ✓      6. ✓

### D. Answer the following questions:

- The different types of computers are:
  - Microcomputers
  - Mini Computers
  - Embedded Computers
  - Game Consoles
  - Mainframe Computers
  - Mobile Computers
  - Supercomputers
- A binary number system is one of the four types of number systems. In computer applications, binary numbers are represented by only two symbols or digits, i.e. 0 (zero) and 1 (one). The binary numbers here are expressed in the base-2 numeral system.
- There are two kinds of links in HTML:

- External Link: Linked to an external web page.
  - Internal Link: Linked within the same web page.
- Artificial Intelligence is a machine that can solve problems that humans perform using natural intelligence.
  - Python is high-level and open-source
    - It is interpreted and case-sensitive
    - It uses indentation for blocks
    - It supports multiple paradigms
    - It has a large standard library
    - It is portable and platform agnostic
  - The if statement executes a block of code only when a condition is true.
    - The if...else statement provides an alternative block of code when the condition is false.

### Assertion Reason Questions

1. (a)      2. (b)

### Source Based Questions

- Virtual Reality is something that does not exist physically but can be visualised and experienced.
- Virtual reality enables the creation of real-life simulations in order to provide users with an immersive experience that makes them feel as if they are actually interacting with the digital environment around them.
- Car racing games.

### Picture Based Questions

- Edge, Firefox, Chrome, Safari, Opera
- Yes



# Computer-8

## CHAPTER-1

### Networking in Computers

**A. Tick (✓) the correct answer:**

1. (a)      2. (a)      3. (a)  
4. (a)      5. (a)      6. (c)

**B. Fill in the blanks :**

1. standalone      2. bus (cable)  
3. client-server architecture  
4. bus, star  
5. topology

**C. Tick (✓) the correct statement and cross (X) out the wrong one:**

1. ✓      2. ✓      3. X  
4. ✓      5. X

**D. Answer the following questions:**

- A router is a hardware device used to link a LAN with an internet connection. It forwards packets based on the routing table and determines the best path.  
• A modem enables a computer to access the internet using a telephone line. It converts digital data to analog signals and vice versa.
- In a client-server architecture, the host (server) manages most of the resources and services that clients request. Clients are typically personal computers while servers are powerful systems that handle tasks like database management.
- Bus Topology :  
Advantages: • Requires shorter cable length • Easy to connect computers

- Disadvantages: • If main cable breaks, entire network fails  
• Difficult to isolate problems

**Star Topology :**

- Advantages: • Easy to connect computers • Easy to detect faults

- Disadvantages: • Central point failure affects entire network  
• Needs more cables

**Ring Topology :**

- Advantages: • Faster data transfer

- Disadvantages: • One failure can affect the entire network

**Mesh Topology :**

- Advantages: • Multiple communication paths

- Disadvantages: • High cost due to extensive cabling

**Tree Topology :**

- Advantages: • Easy to identify faulty devices • Easily expandable

- Disadvantages: • Backbone failure crashes the segment • Difficult to configure

- Wireless or unguided media does not use any physical cables. Technologies like Bluetooth and Wi-Fi are used for communication over short distances.  
• Bluetooth operates up to 30 feet at less than 1 Mbps.  
• Wi-Fi offers high-speed broadband and can span 50–300 feet indoors.
- PAN: Personal Area Network  
LAN: Local Area Network  
MAN: Metropolitan Area Network

**Assertion Reason Questions**

1. (c)            2. (a)

**Picture Based Questions**

1. It is a router.
2. It like a LAN with the internet and forwards data packets by choosing the best path.
3. It is a Hardware Device.
4. **Reliability:** If the server has stopped functioning, the network goes down, but no other networks are affected that are served by the router.

**Security:** The information which is transmitted to the network will traverse the entire cable, but the only specified device which has been addressed can read the data.

**Performance:** Router enhances the overall performance of the network, by splitting the networks. Suppose there are 36 workstations in a network that generate the same amount of traffic. This increases the traffic load on the network. Router splits the single network into two networks of 18 workstations each, reducing the traffic load by half.

**Art Integration**

Do yourself.

**CHAPTER-2**

**Computers Crime and Ethics**

**A. Tick (✓) the correct answer:**

1. (a)            2. (a)            3. (d)  
 4. (a)            5. (b)

**B. Fill in the blanks :**

1. Computer Ethics    2. **harm**
3. Cyber bullying    4. **Warms**
5. Spam

**C. Tick (✓) the correct statement and cross (X) out the wrong one:**

1. ✓            2. X            3. X  
 4. ✓            5. X

**D. Answer the following questions:**

1. Ans. Computer ethics refers to a set of guiding principles for using computers without causing harm to others.
2. Ans. Cyber bullying or cyber harassment is a form of bullying or harassment using electronic means. It is also known as online bullying.
3. • Viruses are malicious programs that attach to and corrupt programme files.  
 • Trojans are dangerous programs that are disguised as useful utilities or software and, once installed, cause damage to the computer system and files.
4. • Set up emergency phone numbers for immediate dialing.  
 • Maintain strong password and pattern protection.  
 • Keep your antivirus and software up to date.  
 • Maintain a regular backup of your phone's data.
5. • Pharming is a cyber attack intended to redirect a website's traffic to another, fake site by installing a malicious program on the computer.  
 • Phishing is an attack that attempts to steal your money, or your identity, by getting you to reveal personal information such as credit card numbers, bank information, or passwords on websites that pretend to be legitimate.

6. • Children must understand that their parents and teachers are always available to them in the event of a problem.
- Children should notify their elders about any incident that even sounds remotely threatening.
- Children should not fear cyber bullies as they are incapable of causing harm and can never carry out their threats to harm someone.
- Children are advised to immediately block such intruders and never entertain them.

#### Assertion Reason Questions

1. (b)      2. (b)

#### Source Based Questions

1. Viruses are malicious programs that attach to and corrupt programme files.
2. They corrupt or destroy data storage by destroying useful data.
3. Trojans are dangerous programmes that are disguised as useful utilities or software and, once installed, cause damage to the computer system and files.
4. Worms are programme codes that spread their copies across a network from one computer to the next, slowing down the computers' processing.

#### Case Based Questions

1. Hacking into someone's social networking profile.
2. She should notify her elders and block such intruders she should save the messages offline as evidence.
3. Maintain strong password protection, avoid chatting with

stranger and keep antivirus and apps updated.

#### Art Integration

Do yourself.

## CHAPTER-3

### Attributes in HTML

#### A. Tick (✓) the correct answer:

1. (a)      2. (a)      3. (a)
4. (a)      5. (a)

#### B. Fill in the blanks :

1. HTML attribute    2. CSS Rule
3. CSS selectors    4. id selector
5. class selector

#### C. Tick (✓) the correct statement and cross (X) out the wrong one:

1. ✓      2. X      3. ✓
4. ✓      5. ✓

#### D. Answer the following questions:

1. HTML attributes are pieces of markup language used to adjust the behavior or display of HTML elements.
2. The Id selector selects one unique element using the id attribute. The Class selector applies styles to all elements having the same class name.
3. A CSS selector is the first part of a CSS rule that determines which HTML elements the styles should be applied to.
4. • Element Selector: Selects elements by tag name (e.g., p, h1).  
• Id Selector: Uses #id to select a unique element.  
• Class Selector: Uses .class to select multiple elements.

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- Universal Selector: Uses \* to select all elements.
  - Group Selector: Groups multiple selectors with a comma.
5. Inline Style: Uses the style attribute directly in the element.
- Embedded Style Sheet: Styles placed inside <style> tags in <head>.
- External Style Sheet: Linked using <link> tag to an external .css file.
6. There are two ways to attach external style sheets:

1. Linking external style sheets:

By using:

```
<link rel="stylesheet" href="style.css">
```

in the <head>.

2. Importing external style sheets:

By using:

```
import url("style.css") within a <style>
```

tag.

**Assertion Reason Questions**

1. (b)      2. (b)

**Source Based Questions**

1. • Element Selector • Id selector  
• Class selector • Group selector  
• Universal selector
2. The id attributes of the HTML element.

**Art Integration**

Do yourself.

## CHAPTER-4

### Developing Interactive Webpages

**A. Tick (✓) the correct answer:**

1. (b)      2. (b)      3. (b)  
4. (b)      5. (a)

**B. Fill in the blanks :**

1. JavaScript      2. script  
3. Values      4. three  
5. Comments

**C. Tick (✓) the correct statement and cross (X) out the wrong one:**

1. ✓      2. X      3. X  
4. ✓      5. ✓

**D. Answer the following questions:**

1. • Open Notepad
- Write JavaScript code inside <script> tags
  - Save file as .html using "Save As" and select "All Files"
  - Double-click the file to open it in a web browser
2. A variable is a holder of a value. It can store only one value at a time.
3. A comment is a non-executable part of code used to document or explain the code.
- Single-line: // comment
  - Multi-line: /\* comment \*/
4. Event handling is the process of responding to user interactions (like click, mouseover) by executing functions.
5. innerHTML refers to the content between the opening and closing tags of an element. It can be used to display or update content on a web page.
6. Use parseInt () function
- Example:
- ```
package NumPrograms;  
public class StringToInt1 {  
    public static void main(String[] args) {  
        String s1 = "2020";  
        String s2 = "10";
```

```

int x = Integer.parseInt(s1);
int y = Integer.parseInt(s2);

System.out.println(x);
System.out.println(y);
}
}

```

### Assertion Reason Questions

1. (c)      2. (a)

### Source Based Questions

1. Values are stored in variables.
2. One
3. It is permanently lost.

### Art Integration

Do yourself.

## CHAPTER-5

### Database Management System

#### A. Tick (✓) the correct answer:

1. (a)      2. (a)      3. (a)  
4. (a)      5. (b)

#### B. Fill in the blanks :

1. Database      2. DBMS
3. Data integrity      4. redundancy
5. relational database

#### C. Tick (✓) the correct statement and cross (X) out the wrong one:

1. ✓      2. X      3. X  
4. X      5. X      6. ✓

#### D. Answer the following questions:

1. A DBMS is software that helps users create, manage, and manipulate databases efficiently. It allows easy access, retrieval, updating, and management of data.
2. There are four types of DBMS:

- Hierarchical
  - Network
  - Object-Oriented
  - Relational (RDBMS)
3. • Column (Attribute): Vertical field in a table.
  - Row (Tuple): Horizontal entry representing one record.
  - Cell: The box where a row and column intersect, containing a value.
  - Degree: Number of columns.
  - Cardinality: Number of rows.
4. A primary key is a unique identifier for each row in a table. It cannot have duplicate or null values.
  5. A foreign key is a field in a table that refers to the primary key of another table. It connects two tables and allows relational data.
  6. • Easy manipulation (add, delete, update)
  - Data security
  - Data recovery and backup
  - Data sharing and integrity

### Assertion Reason Questions

1. (a)      2. (c)

### Case Based Questions

1. She should recommend using a Database Management System (DBMS) like MS Access.
2. A DBMS will allow easy data storage, fast retrieval, reduced errors, backup, and secure access.
3. Yes, a DBMS can benefit all businesses by organizing and protecting their data.

### Picture Based Questions

1. Microsoft Access

2. Creating and managing tables, forms, queries, and reports; supports relational database functionality.

### Art Integration

Use boxes for tables and lines or arrows to connect related fields. Show primary keys and foreign keys using color coding or symbols like keys and links. This helps visualize how data is connected and shared.

## CHAPTER-6

### MS Access 2019

#### A. Tick (✓) the correct answer:

1. (d)      2. (c)      3. (d)
4. (b)      5. (a)

#### B. Fill in the blanks :

1. old data, new one
2. alphabetically, numerically
3. Filters                      4. Applying
5. Advanced filter

#### C. Tick (✓) the correct statement and cross (X) out the wrong one:

1. X      2. X      3. ✓
4. X      5. ✓

#### D. Match the following :

1. (d)      2. (e)      3. (c)
4. (a)      5. (b)

#### E. Answer the following questions:

1. Microsoft Access is a Microsoft Database Management System (DBMS) that combines the relational Microsoft Jet Database Engine with a graphical user interface and software development tools.
2. 1. Ideal for individual users and smaller teams. 2. Easier than a client-server database to understand and use. 3. Access import/export

functionality for Microsoft Office and other applications. 4. Ready templates available for everyday users to develop and share data. 5. Allows building and publishing Web databases effortlessly. 6. A user-friendly feature 'Tell Me' for assistance. 7. Allows developers to create custom solutions using VBA code. 8. Hide/Show option for Ribbon. 9. Enables users to view Reports Eliminates additional Reports. 10. Reports can be output in PDF format.

3. First, right-click on the record's row header, and then:

A. To add a new record, click the New Record button.

B. To delete a record, click the Delete button.

4. Filters allow you to see only the information that you want to see. When you create a filter, you specify the criteria for the data that will be displayed. The filter then searches the entire table for records that match your search criteria and temporarily hides those that don't.

5. Referential integrity means ensuring that correct data is kept in the tables. Microsoft Access ensures referential integrity in two ways:

(a) If the primary key value changes, the matching values in the child tables will change as well.

(b) If a matching record exists in the related table, the record in any table will not be deleted.

6. **Step-1:** Select Relationships from the Relationships group under the Database Tools tab. The Relationship editor will be launched, and the Show Table dialogue box will appear.

**Step-2:** In the Show Table dialogue box, add the tables Author and Book to the Relationship editor one at a time, then close the dialogue box.

**Step-3:** In the Author table, click on the field Author Code (which is shared by both tables) and drag it up to the same field in the Book table.

**Step-4:** The dialogue Edit Relationships will appear. Press the Create button. The tables will be connected.

### Assertion Reason Questions

1. (a)            2. (a)

### Source Based Questions

- Any value in a child table's foreign key field that is also present in the master table.
- Referential integrity means ensuring the correct data is kept in the tables.
- (a) If the primary key value changes, the matching values in the child tables will change as well.  
(b) If a matching record exists in the related table, the record in any table will not be deleted.

### Art Integration

Use boxes for tables, rows inside boxes for records, and columns for fields. Use lines or arrows to show relationships between tables.

## CHAPTER-7

### Turtle Programming in Python

#### A. Tick (✓) the correct answer:

1. (a)            2. (a)  
3. (d)            4. (a)  
5. (a)

#### B. Fill in the blanks :

1. turtle            2. different  
3. reset            4. right (), left ()  
5. turtle.forward ()

#### C. Tick (✓) the correct statement and cross (X) out the wrong one:

1. ✓            2. X            3. ✓  
4. ✓            5. X

#### D. Answer the following questions:

- Turtle is a pre-installed Python library that enables users to create pictures and shapes by providing them with a virtual canvas. The onscreen pen that you use for drawing is called the turtle.

- Step-1: Click on the Start button.

Step-2: Scroll the mouse to get Python 3.10 option and click on IDLE (Python 3.10) to open Python IDLE.

To create a file in Python, in the Python Shell, go to the File menu and select New File.

- The turtle.clone () method is used to create and return a clone of the turtle with the same position, heading, and turtle properties.

Example: With cloning

```
# import package
import turtle

# make first turtle object
tur1=turtle.Turtle ()

# set turtle properties
tur1.width (5)
tur1.color("red")

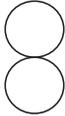
# move it
tur1.circle (50)

# make another turtle object
tur2=turtle.Turtle ()
```

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```
# cloning the properties of  
# first turtle object  
tur2 = tur1.clone ()  
# move it  
tur2.circle(-50)
```

Output:



4. This method is used to stamp a copy of the turtle shape onto the canvas and return its id.
5. tur.clear ()
6. t.bgcolor("red")  
t.fillcolor("yellow")

#### Assertion Reason Questions

1. (c)
2. (c)

#### Source Based Questions

1. Python provides in build functions for creating, writing and reading files.
2. Normal text files and Binary files.
3. The data is stored after converting it into machine-understandable binary language.

#### Art Integration

Do yourself.

## CHAPTER-8

### Code with Python Turtle: Control Statements

A. Tick (✓) the correct answer:

1. (d)
2. (a)
3. (a)
4. (a)
5. (a)

B. Fill in the blanks :

1. If
2. if else
3. Nested if
4. three

5. while

C. Tick (✓) the correct statement and cross (X) out the wrong one:

1. ✓
2. X
3. X
4. ✓

D. Answer the following questions:

1. If statement
  2. If else statement
  3. Nested if statement
  4. If... Elif ladder
  5. Short Hand if statement
  6. Short Hand if-else statement
2. To handle looping requirements, the Python programming language provides the following types of loops. Loops execute a set of statements multiple times based on a condition.
  3. Python provides three methods for loop execution: 1. While loop 2. For loop 3. Nested loops
  4. Conditional statements are used to make decisions based on conditions (true/false), while loops are used to repeat a block of code as long as a condition is true.
  5. While loop: Checks the condition before running the loop and continues while it's true.  
For loop: Iterates over a sequence (like list, range, string) and repeats the block for each element.
  6. Indentation refers to the spaces at the beginning of a code line. Python uses indentation to indicate a block of code.

Assertion Reason Questions

1. (c)
2. (a)

Source Based Questions

1. Because it determines whether or not the code is executed based on whether or not it meets the specified conditions.

2. It contains code that executes only if the condition in the 'If statement is true.
3. The statement can be a single line of code or an entire block of code.

### Art Integration

Do yourself.

## CHAPTER-9

### AI: Challenges and Applications

#### A. Tick (✓) the correct answer:

1. (a)      2. (d)      3. (a)
4. (a)      5. (a)

#### B. Fill in the blanks :

1. Elucify              2. Reinforcement
3. Von Neumann's
4. The Turing Test
5. Speech Synthesis

#### C. Tick (✓) the correct statement and cross (X) out the wrong one:

1. ✓      2. X      3. ✓
4. X      5. ✓

#### D. Answer the following questions:

1. The ability of a digital computer or computer-controlled robot to perform tasks commonly associated with intelligent beings is referred to as artificial intelligence (AI). The term is frequently applied to the project of developing systems endowed with human-like cognitive processes, such as the ability to reason, discover meaning, generalise, or learn from prior experience.
2. Eliminate Dull and Boring Tasks: An AI system performs assigned tasks repeatedly without getting bored.

Imitates Human Cognition: AI mimics the way the human mind thinks and solves problems.

3. Chatbots are software that allows a conversation with the user to solve any problems they are having, either through auditory or texting methods. These programs simulate human behaviour while conversing with a human via an application.
4. There are four types of AI-based systems:
  1. Reactive Machines – Respond to stimuli, no memory.
  2. Limited Memory – Learn from historical data.
  3. Theory of Mind – Understand needs, emotions, and thoughts (concept only).
  4. Self-Aware – Human-like intelligence and self-awareness (theoretical).
5. The Turing Test, originally called the imitation game, was founded by Alan Turing in 1950. It is a test of a machine's ability to exhibit intelligent behaviour equivalent to, or indistinguishable from, that of a human.
6. Recommendation Systems: Used in e-commerce and streaming platforms to suggest products, movies, or music.  
Games: AI systems are developed to play and compete in board games or video games using planning and reinforcement learning.

#### Assertion Reason Questions

1. (c)      2. (b)

#### Source Based Questions

1. Artificial Intelligence (AI)

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2. It holds the promise of resolving some of society's most pressing issues.
3. Challenges such as incomprehensible "black box" algorithms, unethical data use, and potential job displacement.
4. In homes, business, and political processes.

**Art Integration**

Do yourself.

**Worksheet**

**A. Tick (✓) the correct answer:**

- |        |        |        |
|--------|--------|--------|
| 1. (b) | 2. (a) | 3. (a) |
| 4. (d) | 5. (d) | 6. (a) |

**B. Fill in the blanks :**

1. Standalone computer
2. Cyberbullying
3. attribute
4. database management system (DBMS)
5. filtered
6. Speech Synthesis

**C. Tick (✓) the correct statement and cross (X) out the wrong one:**

- |      |      |      |
|------|------|------|
| 1. ✓ | 2. ✓ | 3. X |
| 4. X | 5. ✓ | 6. X |

**D. Answer the following questions:**

1. A router connects multiple devices to a network and manages traffic between them. A modem connects a network to the internet using the ISP's signal.
2. • A virus is a malicious software that replicates and spreads by attaching itself to files or programs.

- A Trojan appears as a useful program but actually contains harmful code.
3. • Open an HTML file.
    - Use `<script>` tag.
    - Write: `document.write("Hello World");`
    - Save and open in browser to see the output.
  4. • Manages structured data using tables.
    - Supports forms, queries, and reports.
    - Allows relational database management.
    - Provides GUI for easy data input and manipulation.
  5. `tur.clear ()`
  6. The ability of a digital computer or computer-controlled robot to perform tasks commonly associated with intelligent beings is referred to as artificial intelligence (AI). The term is frequently applied to the project of developing systems endowed with human-like cognitive processes, such as the ability to reason, discover meaning, generalise, or learn from prior experience.

**Assertion Reason Questions**

- |        |        |
|--------|--------|
| 1. (a) | 2. (a) |
|--------|--------|

**Source Based Questions**

1. In variables.
2. Only one value.
3. The previous value is permanently lost.

