



BASED ON
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DigiClick

A Trendy Way to Learn Computer

Key 1 to 5

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 **Test Paper Generator**

 **E-Teacher Manual**

 **Smart Application**


 **Web Support**

1

Memory and Storage Devices

Computer-1

A. Tick (✓) the correct option.

- Ans.** 1. (a) Ruler
2. (c) smart
3. (b) easier
4. (c)  Television

B. Look at the pictures carefully. Fill the box with green if it is not a machine and red if it is a machine:



Ans. Not machine



Machine



Machine



Machine



Not machine



Machine

C. Match the following:

1. It washed the clothes.
2. It is used to store food and drinks.
3. It runs on fuel.
4. It is a smart machine.
5. It is used to cut papers.

(iii)



(v)



(ii)



(i)



(iv)



D. Answer the following questions:

- Ans.** 1. A machine is a tool that makes our work easier and faster.
2. Television and Washing machine.
3. Car and Aeroplane.
4. Because it works fast, saves our work, does many tasks, and never gets tired.

2

Computer Components

A. Tick (✓) the correct option.

- Ans.**
1. (c) Six
 2. (b) easier
 3. (a) CPU
 4. (c) Speakers
 5. (b) It displays the pictures

B. Read the given clues and complete the name of the parts of the computer:

- Ans.**
1. K E Y B O A R D
 2. M O N I T E R
 3. M O U S E

C. Write one use for each given part of the computer:

- Ans.**
1. It shows pictures and videos.
 2. It helps to click and select items.
 3. They help us to listen to sound/music.
 4. It is used for typing.
 5. It prints documents (hard copy).
 6. They help us listen to sound privately.

D. Write the missing words using the given list as reference:

- Ans.**
1. Monitor
 2. Keyboard
 3. CPU
 4. Speakers
 5. buttons.

3



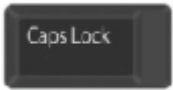



Keyboard and Mouse

A. Tick (✓) the correct option.

- Ans.**
1. (b) A–Z

2. (a) 104
3. (c) 3
4. (a) Backspace Key

B. Match the keys with their correct names:

1.		i) Delete Key	2.	
		ii) Alphabet Key		
3.		iii) Backspace Key	4.	
		iv) Caps Lock Key		
5.		v) Number Key	6.	
		vi) Escape Key		

C. Answer the following questions:

- Ans.**
1. Spacebar is the longest key on the keyboard.
 2. Caps Lock key is used to type capital letters.
 3. The keyboard is rectangular in shape.
 4. A mouse is an input device used to draw pictures, click icons, and open items on the monitor.
 5. A mouse usually has two or three buttons.

4

Starting and Shutting Down Computer

A. Tick (✓) the correct option.

- Ans.**
1. (c) icons
 2. (a) power source
 3. (b) life span

B. Write the steps to shut down the computer in your notebook.

- Ans.**
- Step 1** - Click on the Start button.
- Step 2** - Click on the Power option.
- Step 3** - Click on Shut down.

C. In the following images, the girl is turning on the computer. Arrange the picture in the correct order:



Ans. Step 1 - Switch ON the power supply. **Step 2** - Switch ON the UPS.



Step 3 - Switch ON the power button on the CPU cabinet. **Step 4** - Switch ON the monitor.

5

Entering Text in Notepad

A. Tick (✓) the correct option.

- Ans.**
1. (c) both a) & b)
 2. (a) Title bar
 3. (b) .txt
 4. (c) Print button

B. Tick (✓) the correct and cross (✗) the wrong statements:

- Ans.**
1. (✗)
 2. (✗)
 3. (✓)
 4. (✓)

C. Answer the following questions:

1. Notepad is used to type and edit simple text documents.
2. Title Bar, Menu Bar, Working Area, Status Bar
2. Yes, we can change the font size in Notepad.

6

Paint on Paint

A. Tick (✓) the correct option.

- Ans.** 1. (b) 2
2. (b) View
3. (c) Save

B. Tick (✓) the correct and cross (X) the wrong statements:

1.



(i) Brushes



3.



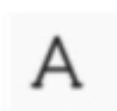
(ii) Text

(iii) Fill with Color

4.



5.



(iv) Pencil

(v) Magnifier

(vi) Eraser



C. Write the uses of the following tools:

- Ans.** 1. It is used to type text directly onto a picture.
2. It is used to apply colour using strokes as you move the cursor.
3. It is used to draw a line with different colours.

D. Answer the following questions:

- Ans.** 1. Yes, we can colour pictures in MS Paint using the Fill with Color tool.
2. File tab and View tab.
3. Circle (Oval), Square, Rectangle, Triangle, Star, Arrow.

7

Tux Paint

A. Tick (✓) the correct option.

- Ans.** 1. (a) sound effects
2. (b) Color Box
3. (c) white
4. (a) New Tool

B. Tick (✓) the correct and cross (X) the wrong statements:

- Ans. 1. (X)
2. (X)
3. (X)

C. Write any two features of Tux paint in your notebook.

- Ans. ♦ Tux Paint is a free software.
♦ Funny sound effects are played when we select any tool in Tux Paint.

8

Learn Patterns


A. Fill in the blanks:

- Ans. 1. Do it yourself.
2. (Your age + 1)
3. 7, 5
4. 5

9

Introducing AI

A. Tick (✓) the correct option.

- Ans. 1. (c) human
2. (a) Artificial
3. (a)  AutoDraw (pencil icon)

B. Write the missing words using the given list as reference:

- Ans. 1. AI (Artificial Intelligence)
2. brain
3. robot

C. Answer the following questions:

- Ans. 1. Artificial Intelligence (AI) allows a computer to think and learn.
2. Smartphone and Smart Watch.
3. AutoDraw is the modern drawing tool that changes rough sketches into inventivesymbols.

1

Memory and Storage Devices

Computer-2

A. Tick (✓) the correct option.

- Ans**
- 1 (c) trillion
 - 2 (c) both a) & b)
 - 3 (a) Supercomputer
 - 4 (b) output

B. Identify and name the pictures.

- Ans.**
- 1 Supercomputer
 - 2 Mainframe Computer
 - 3 Personal Computer (PC)
 - 4 Minicomputer

C. Answer the following questions.

- Ans.**
- 1 There are five types of computers.
 - 2 The Supercomputer is the largest in size.
 - 3 PC is a general-purpose computer used for personal work like typing, watching movies, etc.
 - 4 A workstation is used for technical and scientific work like animation, data analysis, and video editing.
 - 5 ♦ It accepts input from the user.
♦ It gives output/results after processing.

2

Uses of Computer

A. Tick (✓) the correct option.

- Ans**
- 1 (b) airports
 - 2 (a) Banks
 - 3 (b) diagnose diseases

B. Fill in the blanks

- Ans.**
- 1 watch
 - 2 music
 - 3 sums
 - 4 send

C. Tick (✓) and Cross (X) the wrong statement.

- 1 ✓
- 2 X
- 3 X
- 4 ✓

D. Answer the following questions.

Ans 1 Computers are crucial because they help us do many tasks quickly and save time.

Ans 2 We can watch movies, listen to music, solve sums, type documents, send emails, and play games.

Ans 3 Yes, we can send e-mails through a computer.

Ans 4 Doctors use computers to diagnose diseases.

3

Accessories for Computers

A. Tick (✓) the correct option.

- Ans 1** (b) 6
2 (b) CPU
3 (c) Scanner

B. Match the following

Column A

Column B

- Ans.** 1. CPU (iv) Processing Device
2. Keyboard (i) Input Device
3. Pen Drive (iii) Storage Device
4. Monitor (ii) Output Device

C. Fill in the blanks.

- 1 enter
- 2 input, output
- 3 data
- 4 programs

D. Answer the following questions.

Ans. 1 Peripherals are devices used to input data into or get data from a computer.

2 I/O devices are Input and Output devices that help the computer to take input and give output.

- 3 ♦ Hardware are physical parts of a computer (like keyboard, mouse).
- ♦ Software are programs that run on a computer (like Paint, MSWord).
- 4 Keyboard, Mouse
- 5 Monitor, Printer

4

About Paint

A. Tick (✓) the correct option.

- Ans**
- 1 (b) drawing tool
 - 2 (a) Title bar
 - 3 (a) 6
 - 4 (c) Minimize button
 - 5 (c) Pick Color

C. Tick (✓) and Cross (✗) the wrong statement.

- Ans**
- 1 ✓
 - 2 ✗
 - 3 ✓
 - 4 ✗

D. Answer the following questions.

- Ans**
- 1 The Paint program is used for drawing pictures. It helps us to make simple as well as complex drawings on the computer.
 - 2 1. Pencil Tool 2. Eraser Tool 3. Fill with Color Tool
 - 4. Text Tool 5. Pick Color Tool
 - 3 The Text tool is used to insert text into a picture.
 - 4 A drawing in Paint is saved as a bitmap (BMP) file.

5

Paint with Tux Paint

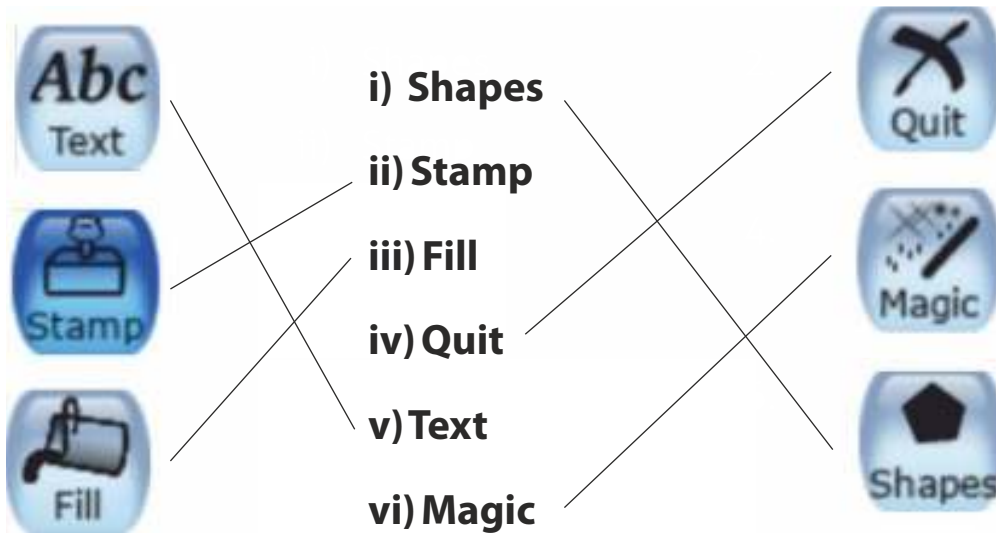
A. Tick (✓) the correct option.

- Ans**
- 1 (c) Both a & b
 - (c) 140
 - (a) Drawing Area
 - (a) Stamp tool

B. Fill in the blanks.

- Ans.** 1 free
2 mascot
3 Color Box
4 Quit

C. Match the following tools with their names.



D. Answer the following questions.

- Ans.** 1 ♦ Ease of use and entertainment
♦ Simplicity
2 The Magic tool is used to add special effects like blur, mirror, rain, etc., to drawings.
3 You can select the size of the eraser from the selector panel on the right side.
4 From the selector/sub-toolbar of the Text tool.

6

Work on WordPad

A. Tick (✓) the correct option.

- Ans** 1 (a) Ribbon
(b) Right side
(b) Right side
(c) U

B. Fill in the blanks.

- Ans.** 1 WordPad

- 2 Title
- 3 right
- 4 two
- 5 printer

C. Tick (✓) and Cross (X) the wrong statement.

- Ans**
- 1 ✓
 - 2 ✓
 - 3 X
 - 4 ✓

D. Answer the following questions.

- Ans.**
- 1 WordPad is a Windows application used to create, edit and format documents like letters, notes and posters.
 - 2 ♦ It is an easy tool for doing simple tasks.
♦ It helps in formatting and printing documents.
 - 3 Yes, we can use WordPad to create letters and documents.
 - 4 ♦ Title Bar
♦ Ribbon
♦ File Menu
♦ Document Area
 - 5 Alignment is the way text is arranged on a page.
Main alignments are: Left alignment, Right alignment, Center alignment, Justify alignment

7

Think with Pattern

A. Tick (✓) the correct option.

- Ans**
- 1 (a) Pattern
(b) Repeating pattern
(b) Decoding

B. Fill in the blanks.

- Ans**
- 1 region
 - 2 decomposition
 - 3 coding

C. Answer the following questions.

- 1 ♦ Repeating pattern
♦ Growing pattern
♦ Shape pattern
- 2 Decomposition means breaking a big problem into smaller parts to make it easier to understand and solve.
- 3 Decoding is the process of converting a coded message back into its original meaning.

8

Introduction to Scratch 3.0

A. Tick (✓) the correct option.

- Ans** 1 (c) both a & b
(a) Stage
(b) Script

B. Tick (✓) and Cross (✗) the wrong statement.

- Ans** 1 ✓
2 ✓
3 ✗
4 ✓

C. Answer the following questions.

- Ans.** 1 A Sprite is a character or object in Scratch that performs actions in a project.
- 2 The programming palette is the area that contains blocks used to create programs for sprites.
- 3 The green flag is used to start or run the program.
- 4 It is important to save a document so that your work is not lost.
Steps to save:
1. Click on File
2. Click on Save
3. Give a name to the project
4. Click on Save

9

Artificial Intelligence

A. Tick (✓) the correct option.

- Ans** 1 (b) computer

- 2 (c) Cortana
- 3 (a) 1956
- 4 (c) Both a & b
- 5 (c) Scientific Discovery

B. Write the missing words using the given list as reference.

- Ans.**
- 1 Artificial Intelligence (AI)
 - 2 algorithms
 - 3 robots
 - 4 Machine learning
 - 5 thermostats

C. Answer the following questions.

- Ans.**
- 1 ♦ It helps in solving difficult problems easily.
♦ It improves handling of information.
 - 2 Gaming, Education, Healthcare, Finance, Automobiles
 - 3 Machine Learning is a part of Artificial Intelligence that allows computers to learn from data and improve their performance without being directly programmed.
 - 4 AI-enabled refrigerators use barcode or RFID tracking.

A. Tick (✓) the correct option.

- Ans.** 1. a) Input
 2. c) Digitizing Tablet
 3. c) Both a) & b)
 4. b) ALU

B. Write the full form of the following.

- Ans.** 1. ALU - **Arithmetic Logic Unit**
 2. CU - **Control Unit**
 3. CPU - **Central Processing Unit**
 4. VDU - **Video Display Unit**
 5. LCD - **Liquid Crystal Display**
 6. CRT - **Cathode Ray Tube**

C. Tick (✓) the correct and cross (X) the wrong statements.

- Ans.** 1. X
 2. ✓
 3. X
 4. X

D. Answer the following questions.

Ans. 1. A computer has four main parts:

- ◆ Input Devices
- ◆ Processing Unit
- ◆ Storage Devices
- ◆ Output Devices

2. Type	Description	Examples
Input Devices	- Used to enter data into the computer	- Keyboard, Mouse
Processing Device	- Processes the data	- CPU
Output Devices	- Show results from the computer	- Monitor, Printer

3. ♦ Device: Printer
♦ Types of printers:
♦ Inkjet
♦ Laser
♦ Dot Matrix
4. **Hard Copy:** Printed output on paper
Soft Copy: Output visible on screen
5. Storage devices are used to **store data for future use.**
Examples:
♦ Hard Disk
♦ Pen Drive
♦ CD
♦ DVD

2

Windows 11

A. Tick (✓) the correct option.

- Ans.** 1. c) Windows 11
2. b) Settings
3. c) Alt + F4

B. Write the missing words using the given list as reference:

- Ans.** 1. by toggling
2. Task View
3. credentials

C. Answer the following questions.

- Ans.** 1. Windows was first launched in **1985.**
2. The predecessor of Windows 11 is **Windows 10.**
3. Some features of Windows 11 are:
♦ Mac-like interface (clean design)
♦ Widgets
♦ Integrated Android apps
♦ Better multitasking (Snap Layouts)
♦ Better virtual desktop support

4. Widgets are small tools that show useful information like:
 - ◆ Weather
 - ◆ News
 - ◆ Sports
 - ◆ CalendarThey are available on the **taskbar** and can be customized.
5. Turn on the PC
 - ◆ Click on the screen
 - ◆ Enter your username and password (credentials)
 - ◆ Click the arrow or press Enter
 - ◆ You will reach the Desktop

3

Paint 3D

A. Tick (✓) the correct option.

- Ans.**
1. **b) Windows 11**
 2. **a) Save**
 3. **c) Both a) & b)**

B. Read the clues and name the tools present in Paint 3D:

- Ans.**
1. Brushes Tool
 2. Options Tool
 3. 2D Shapes Tool
 4. 3D Shapes Tool

C. Answer the following questions.

- Ans.**
1.
 - ◆ It has many drawing tools like marker, pencil, eraser, etc.
 - ◆ It allows creating **3D objects**.
 - ◆ It includes **stickers, textures and effects**.
 - ◆ It can convert **2D shapes into 3D**.
 2.
 - ◆ Title Bar
 - ◆ Menu
 - ◆ Brushes Tool

◆ 2D Shapes Tool

◆ 3D Shapes Tool

(You can also write: Options Tool, Canvas, Color Palette)

3.
 1. Select the **3D Shapes tool**
 2. Choose a shape (like cube)
 3. Move the mouse to canvas
 4. Drag to draw the shape
 5. Adjust or rotate the shape
4. Paint 3D is better because it allows creating 3D objects, has more tools, effects, and features, and helps turn drawings into 3D models.

4

MS Word 2019

A. Tick (✓) the correct option.

- Ans.**
1. a) Microsoft Office Suite
 2. b) right end
 3. c) Ribbon
 4. b) Home Tab

B. Write the missing words using the given list as reference:

- Ans.**
1. Learning Tools
 2. Zoom Slider
 3. Ribbon Display Options
 4. Save As, Save

C. Answer the following questions.

- Ans.**
1. Word 2019 is a word processing application in Microsoft Office. It is used to create, edit, format, and print documents like letters, projects, and reports.
 2.
 1. Click on the **Start button**
 2. Click on **All Apps**
 3. Scroll and find **Word 2019**

4. Click on it to open

3. Active Tab:

It is the tab that is currently open (by default Home tab).

Contextual Tab:

It appears only when you select objects like pictures or text boxes and shows extra options.

4. Saving files is important because it stores your work permanently and allows you to open and use it later without losing data.

5

Internet Worldwide

A. Tick (✓) the correct option.

- Ans.**
1. c) Both a) & b)
 2. b) Internet
 3. a) E-mail
 4. c) Both a) & b)

B. Write the full form of the following.

- Ans.**
1. **WWW** : World Wide Web
 2. **ISP** : Internet Service Provider
 3. **URL** : Uniform Resource Locator
 4. **SDG** : Sustainable Development Goals

C. Write the differences between the following:

Ans. 1. Home Page vs Web Page

Home Page

First page of a website
Gives introduction and links
Main starting point

Web Page

Any page of a website
Contains information
Can be any internal page

2. Web Browser vs Search Engine

Web Browser

Software to open websites
Example: Chrome, Edge
Displays web pages

Search Engine

Tool to search information
Example: Google, Yahoo
Finds websites

D. Answer the following questions.

- Ans.**
1. The Internet is a global network of interconnected computers that allows people to share information and communicate worldwide.
 2. Because it helps in communication, learning, shopping, banking, entertainment, and accessing information quickly.
 3.
 - ◆ Searching information easily
 - ◆ Online communication
 - ◆ Entertainment
 - ◆ Online shopping and banking
 4.
 - ◆ A computer
 - ◆ Modem or data connection
 - ◆ Web browser
 - ◆ ISP account
 5.
 1. Click on **Start button**
 2. Click on **All Apps**
 3. Scroll and select a browser (like Chrome)
 5. Click to open

6

Algorithm

A. Tick (✓) the correct option.

- Ans.**
1. c) solving a problem
 2. a) Logical sequence
 3. b) When the problem is solved

B. Write the missing words using the given list as reference:

- Ans.**
1. programmers
 2. programming
 3. flowcharting
 4. display

C. Tick (✓) the correct and cross (X) the wrong statements.

- Ans.**
1. X
 2. ✓

3. ✓

D. Answer the following questions.

Ans. 1. An algorithm is a step-by-step procedure or set of instructions used to solve a problem.

2. ♦ It has a finite number of steps

♦ Each step is clear and well-defined

♦ produces an output

♦ It follows a logical sequence

♦ It is simple and effective

3. A flowchart is used to represent an algorithm in a diagram form using symbols. It helps to understand the process easily.

4. ♦ Start/End symbol shows the beginning or ending of a process

♦ Process symbol shows calculations or steps

♦ Input/Output symbol shows data input or output

5. Algorithm

Written in steps

Uses plain text

Harder to understand

Easy to debug

Flowchart

Drawn using symbols

Uses shapes

Easy to understand

Hard to debug

7

More on Scratch 3.0

A. Tick (✓) the correct option.

Ans. 1. c) both a & b

2. c) Blocks

3. c) 8

B. Tick (✓) the correct and cross (✗) the wrong statements.

Ans. 1. ✓

2. ✓

2. ✓

2. ✗

D. Answer the following questions.

- Ans.**
1. Scratch 3.0 is used to create interactive stories, games and animations using block-based coding.
 2. Scratch was created by the **MIT Media Lab**.
 3.
 - ◆ Easy to use (no typing commands)
 - ◆ Drag and drop blocks
 - ◆ Colour-coded commands
 - ◆ Helps in creating games and animations easily
 4.
 - ◆ **Stage**: Where actions and animations happen
 - ◆ **Sprite**: Character or object in the program
 - ◆ **Script Area**: Where blocks are joined to create code
 - ◆ **Blocks Palette**: Contains coding blocks

8

World of AI

A. Tick (✓) the correct option.

- Ans.**
1. a) Humans
 2. a) breaks
 3. b) Sophia
 4. c) Saudi Arabia
 5. a) sets of instructions

B. Write the missing words using the given list as reference:

- Ans.**
1. Artificial Intelligence
 2. based on data and algorithms
 3. accuracy and precision
 4. humanoid

C. Answer the following questions.

- Ans.**
1. Artificial Intelligence (AI) is the ability of a computer or machine to think, learn and make decisions like humans.
 2. A set of instructions (programs) helps AI to analyze data, make decisions and perform tasks automatically.

3. Programs like **Siri, Google Assistant and Cortana** use smart technology to recognize speech and respond.
4.
 - ◆ Reduces human errors
 - ◆ Works 24×7 without breaks
 - ◆ Helps in faster decisions
 - ◆ Provides digital assistance
5. **(a) AI and Human Intelligence**
 - ◆ AI depends on data; humans use brain
 - ◆ AI is faster; humans are slower
 - ◆ Humans adapt easily; AI takes time**(b) Weak AI and Strong AI**
 - ◆ Weak AI performs specific tasks; Strong AI can think and act like humans
 - ◆ Weak AI is limited; Strong AI is advanced
 - ◆ Examples: Alexa (Weak AI), Sophia (Strong AI)

A. Tick (✓) the correct option.

- Ans.**
1. (a) Hardware
 2. (a) Input Device
 3. (c) Storage Device
 4. (a) MSWord

B. Write the missing words using the given list as reference:

- Ans.**
1. memory unit
 2. pictures
 3. operating system
 4. two
 5. ROM

C. Write the full form of the following:

- Ans.**
1. **ALU** - Arithmetic Logic Unit
 2. **CU** - Control Unit
 3. **RAM** - Random Access Memory
 4. **ROM** - Read Only Memory
 5. **DVD** - Digital Video Disk

D. Answer the following questions.

- Ans.**
1. Storage devices are used to store data and information for future use. They can store data permanently or temporarily.
 2. CPU (Central Processing Unit) is the brain of the computer. It processes data. It has three parts:
 - ◆ **ALU** – Performs calculations
 - ◆ **CU** – Controls all operations
 - ◆ **Memory Unit** – Stores data and instructions
 3. Software gives instructions to the hardware and tells the computer what to do. It helps the computer perform tasks correctly and efficiently.
 4. There are **two types of software**:

- ◆ Application Software – Used to perform specific tasks (like MS Word, Paint)
- ◆ System Software – Controls and manages computer operations (like Operating System)

- | | |
|---|---|
| <p>5. Hardware
Physical parts of computer
Can be seen and touched
Cannot work without software</p> | <p>Software
Set of instructions
Cannot be touched
Cannot work without hardware</p> |
| <p>6. An operating system is software that controls the computer and tells it when and how to run programs.</p> | |
| <p>7.</p> <ul style="list-style-type: none"> ◆ Hard Disk – Stores large amount of data permanently ◆ Pen Drive – Portable device used to store and transfer data | |

2

Types of Computer & Its Ports

A. Tick (✓) the correct option.

- Ans.**
1. c) 3
 2. a) Supercomputer
 3. b) Mainframe
 4. c) Microcomputer
 5. a) Analog Computer

B. Tick (✓) the correct and cross (X) the wrong statements

- Ans.**
1. X
 2. ✓
 3. X
 4. ✓
 5. ✓

C. Answer the following questions.

- Ans.**
1.
 - ◆ Supercomputer
 - ◆ Mainframe computer
 - ◆ Minicomputer
 - ◆ Microcomputer

2.
 - ◆ **Supercomputer** - Used for complex calculations like weather forecasting
 - ◆ **Mainframe computer** - Used by large organizations to manage large data
3.
 - ◆ Desktop
 - ◆ Laptop
 - ◆ Tablet
 - ◆ Smartphone
4.

Analog Computer Works on continuous data Used in scientific devices Example: thermometer	Digital Computer Works on binary data (0,1) Used in daily life devices Example: calculator
--	--
5. Hybrid computers have features of both analog and digital computers.
6. **Types of ports:**
 - Infrared Port
 - USB Port
 - Display Port
 - Network Port
 - Audio Port
 - Power Port

Explanation (any two):

USB Port-Used to connect devices like mouse, keyboard, printer

Display Port - Used to connect monitor to computer

3

Customize and Personalize your Computer

A. Tick (✓) the correct option.

- Ans.**
1. a) Settings
 2. a) Fill
 3. b) 6

B. Write the missing words using the given list as reference:

- Ans.**
1. right-click

2. Microsoft Store
3. built-in
4. Start Menu

C. Write the keyboard shortcuts for the following:

- Ans.**
1. **Extra large icons** - Ctrl + Shift + 1
 2. **Large icons** - Ctrl + Shift + 2
 3. **Medium icons** - Ctrl + Shift + 3

D. Answer the following questions.

- Ans.**
1. Yes, we can customize and personalize our computer by changing background, themes, icons, and settings.
 2. We can right-click on any image and select “**Set as desktop background**” option to change the background.
 3. A theme is a collection of background images, colours, sounds, and settings. We can get themes from the **Microsoft Store**.
 4.
 1. Open **Settings**
 2. Click **Personalization**
 3. Click **Start**
 4. Turn ON/OFF options like:
 - ◆ Show recently added apps
 - ◆ Show most used apps
 - ◆ Show recently opened items

4

Working in word 2019

A. Tick (✓) the correct option.

- Ans.**
1. **b)** 1983
 2. **c)** Back
 3. **a)** Save As
 4. **b)** Dialog Box Launcher

B. Tick (✓) the correct and cross (X) the wrong statements

- Ans.**
1. ✓
 2. ✓

3. X

4. X

C. Match the followings.

- Ans.**
- | | | |
|------------------|---|---|
| 1. BackstageView | - | iii) Start a new blank document |
| 2. Info | - | iv) Obtain information about your documents |
| 3. Ribbon | - | i) Contains functional groupings of buttons |
| 4. Tell me | - | v) Located on the Menu Bar |
| 5. Status Bar | - | ii) Number of pages |

D. Answer the following questions

- Ans.**
1. Microsoft Word is used to create, edit, format, and print documents like letters, reports, and projects.
 2. ♦ BackstageView
♦ Ribbon
♦ Status Bar
♦ Mini Toolbar
♦ Tell Me feature
 3. 1. Click on "**Tell me what you want to do**" box
2. Type the feature name
3. Select the required option from the list
 4. 1. Right-click on the **Status Bar**
2. Select options from the list
3. Click outside to apply
 5. 1. Click **Design tab**
2. Click **Themes**
3. Select a theme
 6. ♦ Using mouse (click and drag)
♦ Using keyboard (Shift + arrow keys)
♦ Select all (Ctrl + A)
♦ Select specific word, line, or paragraph

5

Introducing PowerPoint 2019

A. Tick (✓) the correct option.

- Ans.**
1. **b)** Microsoft Office Suite
 2. **b)** Slide
 3. **a)** Design Tab
 4. **c)** Design Tab

B. Write the missing words using the given list as reference:

- Ans.**
1. presentation
 2. audience
 3. File tab
 4. Themes gallery
 5. Undo

C. Tick (✓) the correct and cross (X) the wrong statements

- Ans.**
1. ✓
 2. ✗
 3. ✓
 4. ✗

D. Answer the following questions

- Ans.**
1. PowerPoint 2019 is used to create presentations using slides with text, images, audio, and video.
 2.
 - ◆ Can be used anywhere
 - ◆ Helps in effective communication
 - ◆ Supports multimedia
 - ◆ Saves time using templates
 3.
 1. Click **Start button**
 2. Click **All Apps**
 3. Select **PowerPoint 2019**

4. Click **Blank Presentation**
4. Templates are pre-designed formats that save time and help create professional presentations.
5.
 1. Click **Design tab**
 2. Select **Themes**
 3. Choose a theme
6. **Undo** - Reverses the last action
Redo - Restores the undone action
7.
 - ◆ Normal View
 - ◆ Slide Sorter View
 - ◆ Notes Page View
 - ◆ Slide Show View

6

Surfing on the Internet

A. Tick (✓) the correct option.

- Ans.**
1. **b)** 1960s
 2. **a)** Dial-Up
 3. **c)** WWW
 4. **b)** IP Address

B. Write one line for each of the following:

- Ans.**
1. **Broadband** - A high-speed Internet connection.
 2. **E-mail** - A method to send and receive messages electronically.
 3. **Instant Messaging** - Sending quick messages online instantly.
 4. **Microsoft Edge** - A web browser developed by Microsoft.
 5. **Search Engine** - A tool used to find information on the Internet.

B. Tick (✓) the correct and cross (X) the wrong statements

- Ans.** 1. ✓
2. ✓
3. X
4. X
4. ✓

D. Answer the following questions

- Ans.** 1. The Internet helps in communication, education, entertainment, and online shopping. It connects people worldwide.
2. ♦ Dial-Up
♦ Broadband
♦ Wireless (Wi-Fi, Mobile, Satellite)
3. An IP Address identifies a device on the Internet network.
4. E-mail stands for Electronic Mail.
5. 1. **Open Gmail website**
2. **Click Create Account**
3. **Fill details (name, username, password)**
4. **Click Next**
5. **Enter phone number and details**
6. **Click Next and I agree**
6. Microsoft Edge is a web browser used to access the Internet.

7

Programming Languages

A. Tick (✓) the correct option.

- Ans.** 1. (a) Machine language
2. (c) Both a) & b)
3. (b) 600
4. (c) Both a) & b)
5. (a) Ruby

B. Write the missing words using the given list as reference:

- Ans.**
1. memory location
 2. programmer
 3. logical
 4. coded
 5. C++

C. Match the following

- Ans.**
- | | |
|---------------------------------------|-----------------------|
| 1. Computer programming | - v) Coding |
| 2. Developing a full-fledged software | - iii) Programming |
| 3. Reads like spoken English | - iv) Python |
| 4. Twitter | - ii) Ruby |
| 5. C++ | - i) Game Development |

D. Answer the following questions

- Ans.**
1. Coding is used to give instructions to a computer so that it can perform tasks and behave as we want.
 2. ♦ Improves logical thinking
♦ Enhances creativity
♦ Helps in problem solving
♦ Improves communication skills
♦ Develops math skills
♦ Teaches persistence
 3. **Programming**
Develops full software
Needs planning and tools
Requires expertise
Gives complete solution
 - Coding**
Part of programming
Needs simple editor
Needs basic knowledge
Gives small code
 4. A programmer is a person who writes instructions (programs) to tell a computer what to do.

5. ♦ Python
- ♦ Java
- ♦ C++
- ♦ Ruby

8

Knowing Artificial Intelligence

A. Tick (✓) the correct option.

- Ans.**
1. (b) challenges
 2. (a) Data security
 3. (a) Agriculture
 4. (b) Deep Learning
 5. (b) Fuzzy logic
 6. (c) Reactive Machine

B. Write the missing words using the given list as reference:

- Ans.**
1. Artificial Intelligence
 2. safe and secure
 3. grading
 4. Sophia
 5. Chatbot

C. Answer the following questions

- Ans.**
1. Artificial Intelligence (AI) is the intelligence of machines that allows them to perform tasks like learning, problem-solving, planning and reasoning.
 2. ♦ Healthcare
♦ Education
♦ Finance
♦ Gaming
 3. AI helps social media platforms to:
 - ♦ Manage large amounts of data

- ◆ Find trends and hashtags
- ◆ Understand user needs
- ◆ improve user experience

4. Branches of AI:

- ◆ Machine Learning
- ◆ Deep Learning
- ◆ Natural Language Processing (NLP)
- ◆ Robotics
- ◆ Fuzzy Logic
- ◆ Expert Systems

Any two explanation:

◆ **Machine Learning**: Machines learn from data and improve automatically

◆ **NLP**: Helps computers understand human language

5. ◆ **Reactive Machines**: Work only on present data, no memory

◆ **Limited Memory**: Store data for short time (e.g. self-driving cars)

◆ **Theory of Mind**: Can understand emotions (future concept)

◆ **Self-Awareness**: Intelligent like humans (not developed yet)

A. Tick (✓) the correct option.

- Ans**
- 1 (c) Babylonia
 - 2 (b) John Napier
 - 3 (a) Slide Rule
 - 4 (a) Supercomputer
 - 5 (a) Smartwatch

B. Write the missing words using the given list as reference.

- Ans.**
- 1 east
 - 2 Slide Rule
 - 3 Jacquard Loom
 - 4 Scheutzian Calculation Engine
 - 5 speed, computing power

C. Answer the following questions.

- Ans.**
- 1 A tally stick was an ancient memory aid used to keep track of numbers, quantities, documents, and messages.
 - 2 The abacus was used to perform mathematical calculations such as addition, subtraction, multiplication, and division.
 - 3 Napier's Bones were used to perform multiplication, division, and to find square and cube roots.
 - 4 ♦ **ENIAC** - Electronic Numerical Integrator and Computer
♦ **UNIVAC** - Universal Automatic Computer
♦ **VLSI** - Very Large Scale Integration
♦ **ULSI** - Ultra Large Scale Integration
 - 5 Generations of computers refer to different stages of development of computer technology. Each generation introduced better speed, smaller size, and advanced features, helping computers become more powerful and useful.
 - 6 Computers are classified on the basis of their speed and computing power.
♦ Types include:
♦ Personal Computer (PC)
♦ Workstation

- 4 Any three properties are:
Name
Extension
Date and time
Length (size)
Protection attributes
- 5
1. Right-click on the desktop.
 2. Click on New.
 3. Select Folder.
 4. Type a name and press Enter.
- 6
1. Right-click on the desktop.
 2. Click on Display Settings.
 3. Go to Scale & Layout.
 4. Increase the text size as needed.

3

Style with Word 2019

A. Tick (✓) the correct option.

- Ans**
- 1 (b) 2
 - 2 (b) Page Orientation
 - 3 (a) Design Tab
 - 4 (b) Folder
 - 5 (c) 1/2-inch

B. Write the missing words using the given list as reference.

- Ans.**
- 1 Microsoft
 - 2 Landscape
 - 3 locked
 - 4 left side
 - 5 Layout

C. Answer the following questions.

- Ans.**
- 1
 1. Click on the Layout tab.
 2. Click on the Orientation option.
 3. Select Portrait. - 2
 1. Click on the Layout tab.

2. Click on the Size option.
3. Choose the required page size from the list.
- 3 ♦ **Left Align** – Text aligns to the left margin.
- ♦ **Center Align** – Text is centered between margins.
- ♦ **Right Align** – Text aligns to the right margin.
- ♦ **Justify** – Text spreads evenly between both margins.
- 4 Borders make the document attractive and highlight important information. They help draw attention to key areas and improve readability.
- 5
 1. Place the cursor at the beginning of the paragraph.
 2. Press the Tab key.
 3. The first line of the paragraph will be indented.

4

More on PowerPoint 2019

A. Tick (✓) the correct option.

- Ans**
- 1 (a) Images group
 - 2 (c) both a & b
 - 3 (c) both a & b
 - 4 (c) timeline
 - 5 (b) Transition

B. Write the missing words using the given list as reference.

- Ans.**
- 1 high-quality
 - 2 pictures/images
 - 3 easy
 - 4 select
 - 5 customize

C. Tick (✓) and Cross (X) the wrong statement.


- 1 X
- 2 ✓
- 3 ✓
- 4 ✓

D. Answer the following questions.

- Ans.** 1 PowerPoint was first released in 1987 and was originally called Presenter.

2 Adding pictures makes presentations more attractive, engaging, and easy to understand. It helps explain ideas better and keeps the audience interested.

3 Insert Audio:

1. Go to Insert tab
2. Click Audio  Audio on My PC
3. Select file
4. Click Insert

Insert Video:

1. Go to Insert tab
2. Click Video
3. Select video file
4. Click Insert

4 A transition is an effect used when moving from one slide to another.

Types:

- ◆ Subtle: Simple effects (fade, wipe)
- ◆ Exciting: Fancy effects (more animations)
- ◆ Dynamic Content: Moves slide content, not the slide itself

- 5
1. Select slide
 2. Go to Transitions tab
 3. Choose transition
 4. Click Apply to All (optional)
 5. Click Preview to see effect

5

Excel 2019

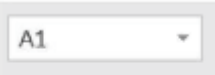



A. Tick (✓) the correct option.

- Ans**
- 1 (b) cells
 - 2 (a) Quick Access Toolbar
 - 3 (c) both a) & b)
 - 4 (c) address
 - 5 (c) Workbook

B. Match the following

- Ans** 1 

(b) Quick Access Toolbar

- 2  (e) Name Box
- 3  (a) Formula Bar
- 4  (c) Active Cell
- 5  (d) Undo Button

D. Answer the following questions.

- Ans**
- 1 ♦ Easy to store data
 ♦ Helps in calculations
 ♦ Data analysis tools available
 ♦ Charts for visualization
 ♦ Many templates available
 ♦ Can clean and transform data
- 2 Excel is used for:
 ♦ Data storage
 ♦ Calculations
 ♦ Charts and graphs
 ♦ Business reports
 ♦ Data analysis
- 3 They help to scroll up/down and left/right in the worksheet.
- 4 Write the steps to create a workbook.
 1. Click on File tab
 2. Select New
 3. Click on Blank Workbook
 4. A new workbook opens
- 5 Three types of data:
 ♦ Number/Numeric Data – numbers and symbols
 ♦ Text Data – alphabets and words
 ♦ Formula – calculations using formulas
- 6 ♦ Undo: Reverses the last action
 ♦ Redo: Repeats the undone action
- 7 Types:
 ♦ Normal View

- ◆ Page Layout View
- ◆ Page Break View

Explanation:

- ◆ Normal View: Default view for working
- ◆ Page Layout View: Shows how the sheet will look when printed

6

Internet & Microsoft Edge

A. Tick (✓) the correct option.

- Ans 1** (c) All of these
 (c) Both a & b
 (a) E-commerce
 (a) Google
 (c) 10

B. Write the missing words using the given list as reference.

- Ans 1** superhighway
 2 Internet
 3 health
 4 web search engine
 5 Microsoft Edge

C. Tick (✓) and Cross (X) the wrong statement.

- 1 ✓
 2 ✓
 3 X
 4 X
 5 ✓
 6 ✓

D. Answer the following questions.

Ans 1 The Internet is called a superhighway because it allows fast and easy sharing of information across the world through different networks.

Ans 2 The Internet provides services like email, video conferencing, and instant messaging, which help us communicate quickly with people anywhere in the world.

3 Online education is learning through the Internet using online classes, tutorials, and lectures provided by schools and universities.

- 4 Some searching tools are:
 - ◆ Google
 - ◆ Bing
 - ◆ Yahoo
 - ◆ DuckDuckGo
- 5 Kiddle is a child-friendly search engine designed especially for kids to search safely on the Internet.
- 6
 - ◆ **Web Note** – Allows users to write, highlight, and draw on web pages.
 - ◆ **Reading View** – Makes articles easy to read without distractions.
 - ◆ **Cortana** – Helps find additional information quickly while browsing.

7

What is Programming?

A. Tick (✓) the correct option.

- Ans**
- 1 (a) dump box
 - 2 (a) Luigi Federico Menabrea
 - 3 (a) Python
 - 4 (c) Procedural languages

B. Write the missing words using the given list as reference.

- Ans**
- 1 program source code
 - 2 problem-solving
 - 3 graphics
 - 4 programming languages
 - 5 hundreds

C. Answer the following questions.

- Ans.**
- 1 A computer program is a set of instructions written in a programming language that tells a computer what task to perform and how to perform it.
 - 2
 - ◆ A program is the complete set of instructions designed to perform a task.
 - ◆ Coding is the process of writing those instructions in a programming language.

In simple words: coding is a part of making a program.
 - 3
 - ◆ Ada Lovelace was the first to create a published computer program in the 19th century.

- ◆ Early machines like the Analytical Engine and Turing Machine used basic codes.
 - ◆ In the 1920s, computers started using programming languages.
 - ◆ Over time, many advanced programming languages were developed.
- 4** The programming process includes the following steps:
1. Defining the problem
 2. Planning the solution
 3. Coding the program
 4. Testing the program
 5. Documenting the program
- 5** ◆ MSWord, Excel, Photoshop, Internet browsers
- ◆ Movie making (graphics & effects)
 - ◆ Medical field (X-rays, ultrasound)
 - ◆ Communication (SMS, chat, video calls)
 - ◆ Business and data analysis
- 6** ◆ Machine Language: Uses 0s and 1s (binary); directly understood by computer.
- ◆ Assembly Language: Low-level language converted by assembler.
 - ◆ Procedural Languages: Follow step-by-step procedures (e.g., C, Go).
 - ◆ Scripting Languages: Interpreted languages (e.g., JavaScript, PHP).
 - ◆ Functional Languages: Use functions to build programs (e.g., Haskell, Scala).
 - ◆ Object-Oriented Languages: Based on objects (e.g., Java, Python).

8

AI Domains

A. Tick (✓) the correct option.

- Ans**
- 1 (b) Sophia
 - 2 (c) 3
 - 3 (a) Data
 - 4 (b) fingerprint
 - 5 (a) Formal Tasks

B. Tick (✓) and Cross (✗) the wrong statement.

- 1 ✓
- 2 ✓

3 ✘

4 ✔

D. Answer the following questions.

Ans. 1 Artificial Intelligence (AI) is the intelligence shown by computers or machines that allows them to think, learn, and make decisions like humans. It uses data and algorithms to perform tasks.

2 Sophia is a humanoid robot developed by Hanson Robotics in Hong Kong. She can think, reason, and compare past and present information. She is one of the most advanced AI robots.

3 The three main domains of AI are:

- ◆ Data Science
- ◆ Computer Vision
- ◆ Natural Language Processing (NLP)

4 Data Science is the study of data using mathematical and statistical methods to extract useful information.

Forms of Data:

- ◆ Numbers
- ◆ Words
- ◆ Symbols

5 Data is a collection of raw facts that can be processed to get information.

Forms of Data:

- ◆ Numbers (e.g., 10, 20)
- ◆ Words (e.g., Hello)
- ◆ Symbols (e.g., %, @)

6 Computer Vision helps computers to see and understand images and videos. It can recognize faces, objects, colors, and patterns.

7 Some applications are:

- ◆ Facial recognition
- ◆ Google Lens
- ◆ Self-driving cars
- ◆ Healthcare diagnosis
- ◆ Retail (Amazon Go stores)

8 Natural Language Processing (NLP) helps computers understand human language (speech and text).

Examples: Google Assistant, Alexa, Chatbots, Google Translate

BASED ON
NEP 2020
NCF 2023

Digi Click

A Trendy Way to Learn Computer

Key 6 to 8

Author:

Himanshu Garg
(Bsc. Computer Science)



Test Paper
Generator



E-Teacher
Manual



Smart
Application



Web
Support

A. Tick (✓) the correct option.

- Ans.**
1. (c) .asf
 2. (a) Play in the Slides
 3. (b) .wma
 4. (c) Windows 10
 5. (a) Print All Presentations

B. Fill in the blanks.

- Ans.**
1. Audio on My PC
 2. Record
 3. Media, Insert
 4. Action

C. Write 'T' for true and 'F' for false statements.

- Ans.**
1. False
 2. False
 3. False
 4. False

D. Short answer type questions.

- Ans.**
1. All slides of the presentation will be printed.
 2. Action buttons are built-in shapes in Power Point that can be used to perform actions like opening a web page, an e-mail, a linked file, or another slide when clicked.
 3. Full Page Slides and Print Current Slide.

E. Long answer type questions.

- Ans.**
1. **Step 1** – Select a slide.
Step 2 – Click on the Insert tab.
Step 3 – Click on Shapes command to open the drop-down list.
Step 4 – Choose an Action Button shape from the bottom of the gallery.
Step 5 – Click and drag the mouse pointer on the slide to draw the button.
Step 6 – The Action Settings dialog box opens.
Step 7 – Click OK to create the action button.
 2. **Step 1** – Click on Video command under the Media group of the Insert tab.
Step 2 – Select Online Video option from the drop-down menu.

Step 3 – Paste the URL of the video in the OnlineVideo dialog box.

Step 4 – Click Insert. The video thumbnail appears in the slide and plays directly from the website during the slide show.

2

Introduction to Animate CC

A. Tick (✓) the correct option.

- Ans.**
1. (a) Tool panel
 2. (a) Line
 3. (d) .fla
 4. (c) Eraser

B. Fill in the blanks.

- Ans.**
1. lines/strokes.
 2. Web/Internet
 3. timeline.
 4. Instance
 5. Lasso

C. Write 'T' for true and 'F' for false statements.

- Ans.**
1. True
 2. False
 3. False
 4. True

D. Short answer type questions.

- Ans.**
1. Adobe Animate CC is a software developed by Adobe Systems used to create animations and vector graphics for websites, videos, games and applications.
 2. The Properties Panel (Property Inspector) is used to view and change the properties of a selected object. It allows us to modify settings like size, colour, position, etc.
 3. Gradient fill is a type of fill where one colour gradually changes into another colour inside a shape.
 4. There are three types of symbols: Movie Clip Symbol (for animations), Button Clip Symbol (for interactivity), and Graphic Symbol (for building complex movie clips).

E. Long answer type questions.

- Ans. 1.**
- Step 1** – Click File → Open and select the file.
 - Step 2** – Select Rectangle Tool from the Toolspanel.
 - Step 3** – Set Stroke Color and Fill Color in Properties panel.
 - Step 4** – Click Object Drawing mode in Tools panel.
 - Step 5** – Draw a rectangle on the stage.
 - Step 6** – Click Selection Tool.
 - Step 7** – Click the rectangle and go to Modify → Convert to Symbol.
 - Step 8** – In the Convert to Symbol dialogbox, enter a name and click OK. The symbol is listed in the Library panel.
- 2.**
- (i) Lasso** - Used to select objects or parts of objects in free-form shape.
 - (ii) Eyedropper** - Used to pick colour or style from one object and apply it to another.
 - (iii) Sub Selection** - Used to select and modify specific anchor points in lines or curves.

3

Introduction to HTML 5

A. Tick (✓) the correct option.

- Ans. 1.**
- (c) <hr>
 - (c) You cannot define your own attributes in HTML5
 - (c) <!--comment-->
 - (c) Body tag

B. Fill in the blanks.

- Ans. 1.**
- Markup
 - website
 - web browser
 - graphics
 - .html / .htm

C. Write 'T' for true and 'F' for false statements.

- Ans. 1.**
- False
 - False
 - True
 - True
 - False

D. Short answer type questions.

- Ans.**
1. A tag is a basic formatting tool of HTML used to tell the browser how to display content.
 2. A website is a collection of related web pages linked together through hyperlinks.
 3. An attribute is extra information added inside the opening tag to define properties of an element.
 4. HTML stands for Hyper Text Markup Language.

E. Long answer type questions.

- Ans.**
1. Two tools are required:
(1) A Text Editor like Notepad or WordPad to write HTML code, OR a WYSIWYG Editor like Adobe Dreamweaver.
(2) A Web Browser like Google Chrome, Internet Explorer, or Mozilla Firefox to view and display the HTML file.
 2. An HTML document is always enclosed within `<html>` and `</html>` tags. It has two sections:
(a) **Head Section** – contains `<head>` and `<title>` tags; the title is shown in the browser's title bar.
(b) **Body Section** – contains `<body>` tag; holds all content shown on the web page like text, images, and videos.
 3. (1) **Container Tags** – Tags that have both an opening and a closing tag, e.g., `<html>...</html>`, `<body>...</body>`.
(2) **Empty Tags** – Tags that do not have a closing tag, e.g., `
`, `<hr>`. These are also called self-closing tags.

4

MS Excel : Working with Data

A. Tick (✓) the correct option.

- Ans.**
1. (b) double-clicking
 2. (c) 255
 3. (d) All of these
 4. (c) Worksheet

B. Fill in the blanks.

- Ans.**
1. row
 2. Cell Styles
 3. operators.

4. Insert
5. Merge & Center

C. Write 'T' for true and 'F' for false statements.

- Ans.**
1. True
 2. False
 3. True
 4. True
 5. False

D. Short answer type questions.

- Ans.**
1. Unmerge Cells command (found by clicking the arrow next to Merge & Center in the Alignment group on the Home tab).
 2. We need to select cells before performing operations like modifying, copying, moving, deleting, or formatting data in Excel.
 3. The Copy command copies the selected cell's content and formatting to the clipboard, so it can be pasted at another location without removing it from its original place.

E. Long answer type questions.

- Ans.**
1. **Method 1 – Using Fill Handle:** Select the cell with the formula. Position the mouse pointer at the lower-right corner until a black cross (+) appears. Drag it to the cells where you want to copy the formula.
Method 2 – Using Copy-Paste: Select the cell, press Ctrl+C to copy, select the destination cells, and press Ctrl+V to paste.
 2. **Step 1** – Select the row(s) or column(s) to change.
Step 2 – Click Format command in the Cells group on Home tab.
Step 3 – Choose Row Height or Column Width under Cell Size.
Step 4 – Type the desired value and click OK. Alternatively, double-click the boundary between two row/column headings to auto-fit the content.
 3. Text wrapping allows displaying multiple lines of text inside a single cell without affecting other cells. Steps:
Step 1 – Click on the cell where you want to wrap the text.
Step 2 – Click on Wrap Text command from the Alignment group under the Home tab. The text will now wrap within the cell.

A. Tick (✓) the correct option.

- Ans.** 1. (b) cell reference
2. (c) cell range
3. (d) SQRT()
4. (a) Average
5. (a) A3

B. Fill in the blanks.

- Ans.** 1. label
2. Function
3. MIN
4. equal
5. TODAY

C. Write 'T' for true and 'F' for false statements.

- Ans.** 1. False
2. True
3. True
4. False
5. True

D. Short answer type questions.

- Ans.** 1. SUM() function adds all the values in a given range of cells.
2. A label in Excel is a text entry used to describe or identify data in a worksheet.
3. A cell reference is a cell address that can be used in a formula to denote a specific cell.

E. Long answer type questions.

- Ans.** 1. Functions are predefined formulas in Excel. Categories: Math functions (SUM, PRODUCT, SQRT), Text functions (CONCATENATE, LEFT, RIGHT, LEN, UPPER, LOWER), Logical functions (MAX, MIN, AVERAGE, IF), and Date & Time functions (TODAY, NOW, MONTH, YEAR, DAY, HOUR, MINUTE).
2. Cell reference is a cell address used in a formula. Types:

- (1) **Relative Reference** - changes when formula is copied, e.g., A1.
- (2) **Absolute Reference** - does not change, uses \$ sign, e.g., \$A\$1.
- (3) **Mixed Reference** - partly fixed, e.g., \$A1 or A\$1.
- 3. LEN function returns the total number of characters in a text string.
Example: =LEN('Touch') gives output 5.
- 4. A group of selected cells is called a cell range.
Steps by mouse:
 - (1) Click on first cell.
 - (2) Hold left mouse button and drag diagonally.
 - (3) Release the mouse button - range is selected.**Steps by Shift key:**
 - (1) Click first cell.
 - (2) Hold Shift and click last cell.
 - (3) Release Shift - range is selected.

6

Computer Malware

A. Tick (✓) the correct option.

- Ans.**
- 1. (b) Computer
 - 2. (c) Norton
 - 3. (c) Dark avenger
 - 4. (b) Firewall
 - 5. (c) Fast processing speed

B. Fill in the blanks.

- Ans.**
- 1. Spam
 - 2. Malware.
 - 3. Antivirus
 - 4. Resource

C. Write 'T' for true and 'F' for false statements.

- Ans.**
- 1. True
 - 2. True
 - 3. True
 - 4. True

D. Short answer type questions.

- Ans.**
1. The different types of computer viruses are Program file virus, Boot sector virus, Macro virus, Multipartite virus, Polymorphic virus, and Stealth virus.
 2. Malware is malicious software designed to damage, disrupt, or gain unauthorised access to a computer system.
 3. Firewall is a security system that protects a computer from unauthorised access over a network.


E. Long answer type questions.

- Ans.**
1. **(i) Boot sector virus** - A boot sector virus infects the master boot record of a hard disk. It loads into memory when the computer starts and spreads to other disks.
(ii) Worms - Worms are malicious programs that replicate themselves and spread across networks without any human action. They slow down the network and computer.
(iii) Trojan horse - A Trojan horse is a program that appears to be useful but is actually designed to steal and pass the user's personal information to others.
 2. **1. Real-time scanning:** It repeatedly checks the computer system for the presence of malicious entities to restrict malware entry.
2. Automatic updates: It frequently updates automatically to track and detect the latest emerging viruses.
3. Protection for multiple apps: It is capable of scanning the entire system, including various apps and services installed on the computer.
4. Fight against all types of malware: Good antivirus programs are designed to thoroughly detect and remove almost all specific types of malware.
 3. Encryption is a technique used to convert plaintext (readable data) into an encoded version (ciphertext) using an encryption algorithm and a key. This ensures the safety of data during transmission over a network or Internet. The encrypted data cannot be decoded or read by anyone unless they have the correct decryption key. It is mainly used to protect sensitive information like passwords and banking credentials from unauthorised access.

7

Algorithm and Flowchart

A. Tick (✓) the correct option.

- Ans. 1. (c) six
2. (a) Flowchart
3. (a) Flowchart
4. (c)  (parallelogram shape)
5. (a) Algorithm

B. Fill in the blanks.

- Ans. 1. algorithm
2. vertical
3. flowchart.
4. Flow Lines
5. Loop

C. Write 'T' for true and 'F' for false statements.

- Ans. 1. False
2. False
3. False
4. False
5. False

D. Short answer type questions.

- Ans. 1. Algorithm is a step-by-step procedure of solving a logical or mathematical problem. It is always written in simple words and precise language.
2. A flowchart is a type of diagram that represents an algorithm or the process to solve a problem. It uses various symbols connected by flow lines.
3. The six basic symbols commonly used in a flowchart are Terminal (Start/Stop), Input/Output, Processing, Decision, Flow Lines, and Connectors.
4. **1. Algorithm** - An algorithm is a step-by-step text-based procedure written in simple language to solve a problem.

2. Flowchart - A flowchart, on the other hand, is a graphical or diagrammatic representation of that algorithm using specific shapes and symbols.

E. Long answer type questions.

- Ans.**
1. **1. Flow lines** - Flow lines and connectors are both used in a flowchart but they serve different purposes. Flow lines show the direction of flow in a program and are used to connect the various symbols in a flowchart, showing the sequence in which steps are performed. They are represented by arrows.
2. Connectors - Connectors, on the other hand, are circular symbols that are specifically used to connect breaks in the flowchart, meaning they join two separate parts of a flowchart when the chart is too long or needs to continue on another page or area.
 2. The main characteristics of a good algorithm are:
 1. **Definiteness:** The steps are defined precisely.
 2. **Input:** It should have well-defined input.
 3. **Output:** It should have well-defined output.
 4. **Finiteness:** The steps required should be finite.
 5. **Effectiveness:** Each step must be able to be performed in a finite amount of time.
 3. **Terminal Symbol (Start/Stop box):** It indicates the beginning and ending of a program in a flowchart.
Input/Output Symbol (Parallelogram): It is used to indicate the input taken and the output shown by a program.
Decision Symbol (Diamond): It is used to raise a question or a condition in a program that can have either Yes/No or True/False as an answer.
 4. A decision making flowchart helps us to come to a decision on the basis of some logic. It uses at least one decision symbol (diamond box). The decision symbol has two exit points, one for Yes/True and another for No/False. It is used to check a certain condition and provide solutions based on whether the condition is met or not.

8

Python – Introduction

A. Tick (✓) the correct option.

- Ans.**
1. (a) lower case
 2. (b) Operators
 3. (c) Exponential
 4. (d) #

B. Fill in the blanks.

- Ans.**
1. Guido van Rossum.
 2. Assignment
 3. string
 4. Input()
 5. False

C. Short answer type questions.

- Ans.**
1. Variables are memory reference points where we store values which can be accessed or changed later.
 2. IDLE stands for Integrated Development and Learning Environment.
 3. Python was developed by Guido van Rossum. He started applying Python in 1989.
 4. Identifiers are names given to variables, functions, or other objects in a Python program.
 5. A data type specifies the type of value a variable can contain, such as integer, float, or string.
 6. Operator precedence determines the order in which operators are executed in an expression. Highest to lowest: (), **, *, /, %, //, +, -, comparison, assignment, logical.

D. Long answer type questions.

- Ans.**
1. **(i) Data type:** Specifies the type of value a variable can hold (int, float, string, bool).
(ii) Logical operators: AND, OR, NOT — used to evaluate conditions.
(iii) Arithmetic operators: +, -, *, /, %, **, // — perform math operations.
(iv) Comment in Python: Text ignored by interpreter, written with # for single line or triple quotes for multiline.
 2. There are two types:

- (1) Single-line comment — starts with #.
- (2) Multi-line comment — enclosed in triple quotes (''' or ''').
- 3. (i) Keywords are reserved words in Python with special meaning (e.g., if, for, while), while Literals are fixed values written directly in the code (e.g., 5, 3.14, 'Hello').
 (ii) Single-line comment starts with # and covers only one line, while a multi-line comment uses triple quotes (''' ''') and can span across multiple lines.
 (iii) AND operator returns True only if both conditions are true, while OR operator returns True if at least one condition is true.
- 4. Python has 6 relational operators: > (greater than: $x > y$), < (less than: $x < y$), == (equal: $x == y$), != (not equal: $x != y$), >= (greater or equal: $x \geq y$), <= (less or equal: $x \leq y$). All return True or False.

9

Fields of Artificial Intelligence

A. Tick (✓) the correct option.

- Ans.**
- 1. (b) AGI
 - 2. (c) Google
 - 3. (a) chatbot
 - 4. (a) machine
 - 5. (a) Neural networks

B. Fill in the blanks.

- Ans.**
- 1. Artificial Narrow Intelligence (ANI)
 - 2. AI (ANI)
 - 3. strategic
 - 4. obstacles

C. Write 'T' for true and 'F' for false statements.

- Ans.**
- 1. False
 - 2. True
 - 3. False
 - 4. True
 - 5. False

D. Short answer type questions.

- Ans.**
- 1. Artificial Intelligence is the process of simulating human intelligence

in man-made machines like computers, including learning, reasoning, and self-correction.

2. F.E.A.R. and Alien: Isolation use artificial intelligence.
3. ASI (Artificial Super Intelligence) refers to the ability of an AI system that could perform any task better than humans with cognitive behaviour.
4. Ethics in AI means the moral principles and rules that guide the fair, responsible and safe development and use of AI systems.

E. Long answer type questions.

Ans.

1. AI is important in:
 - (1) **Gaming** - generates intelligent opponents.
 - (2) **E-commerce** - recommends products.
 - (3) **Banking** - chatbots assist customers and prevent fraud.
 - (4) **Robotics** - robots sense obstacles.
 - (5) **Healthcare** - detects diseases early and suggests treatment.
2. AI in gaming improves strategic aspects of games. It generates responsive, adaptive and intelligent behaviour in non-player characters (NPCs) similar to human-like intelligence, presenting different scenarios and unpredictable opponents each time the user plays.
3. AI Ethics are moral guidelines for creating fair, safe and transparent AI systems. Organisations must ensure AI does not discriminate, respects privacy, is used for the benefit of all people, and is accountable for its decisions.

A. Tick (✓) the correct option.

- Ans.** 1. (c) 1010
2. (c) 2
3. (b) bits
4. (d) 8

B. Fill in the blanks

- Ans.** 1. binary
2. 16
3. 8
4. 10
5. 0

C. Short Answer Type Questions

- Ans.** 1. The binary number system is a number system that uses only two digits: **0 and 1**. Its base is **2**, and it is used by computers to process data.
2. There are **4 bits** in 1 nibble.
3. The octal number system uses digits from **0 to 7** and has a base of **8**.

D. Long Answer Type Questions

- Ans.** 1. A number system is a method of representing numbers using digits or symbols. Each digit has a value depending on its position.

There are different types of number systems:

- ◆ **Binary (Base 2)** - digits: 0, 1
- ◆ **Decimal (Base 10)** - digits: 0–9
- ◆ **Octal (Base 8)** - digits: 0–7
- ◆ **Hexadecimal (Base 16)** - digits: 0–9 and A–F

Number systems help us perform calculations and represent data in computers.

2. ♦ **Binary Addition:**

Binary addition follows these rules:

- ♦ $0 + 0 = 0$
- ♦ $0 + 1 = 1$
- ♦ $1 + 0 = 1$
- ♦ $1 + 1 = 10$

Example:

$$101 + 011 = 1000$$

♦ **Binary Subtraction:**

Binary subtraction follows these rules:

- ♦ $1 - 0 = 1$
- ♦ $1 - 1 = 0$
- ♦ $0 - 1$ - borrow is needed

Example:

$$1000 - 111 = 001$$

2

Charts in Excel 2016

A. Tick (✓) the correct option.

- Ans.**
1. (b) Charts
 2. (c) Area chart
 3. (a) Scatter Chart
 4. (b) Pie-chart
 5. (b) Legend

B. Fill in the blanks

- Ans.**
1. Gridlines
 2. chart
 3. Column
 4. Pie
 5. Chart title

C. Write 'T' for True and 'F' for False

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

D. Short Answer Type Questions

- Ans.** 1. A chart is a graphical representation of data in a worksheet that makes data easy to understand.
2. An area chart is similar to a line chart but the area under the line is filled with colour to show data trends.
3. ♦ Column chart
♦ Bar chart
♦ Line chart
♦ Pie chart
4. ♦ Column chart uses **vertical bars**
♦ Bar chart uses **horizontal bars**

E. Long Answer Type Questions

- Ans.** 1. Different types of charts in Excel are:

1. Column Chart

It uses **vertical bars** to represent data.

It is useful for **comparing values** between different categories.

2. Bar Chart

It uses **horizontal bars**.

It is similar to a column chart but displayed horizontally.

3. Line Chart

It shows **trends over a period of time**.

Data points are connected using lines.

4. Area Chart

It is similar to a line chart but the **area under the line is filled with colour**.

It helps to show **growth and trends clearly**.

5. Pie Chart

It is a **circular chart divided into slices**.

Each slice represents a **part of the whole**.

6. Surface Chart

It is a **3D chart**.

It is used to display **large and complex data sets**.

2. Steps to insert a chart:
 1. Select the data (including headings).
 2. Click on the **Insert tab**.
 3. Go to the **Charts group**.
 4. Choose the desired chart type (Column, Bar, Line, etc.).
 5. Select the chart sub-type.
 6. The chart will be inserted in the worksheet.
3. Steps to change chart type:
 1. Select the chart.
 2. Click on the **Design tab** (under Chart Tools).
 3. Click on **Change Chart Type**.
 4. Choose a new chart type from the list.
 5. Select the required sub-type.
 6. Click **OK**.

3

Advanced Features of Excel

A. Tick (✓) the correct option.

- Ans.**
1. (b) Ascending
 2. (a) Custom Sort
 3. (b) Excel
 4. (d) Filtering
 4. (c) Column headers

B. Fill in the blanks

- Ans.**
1. filtering

2. Editing
3. conditional formatting
4. ascending, descending

C. Short Answer Type Questions

- Ans.**
1. Sorting means arranging data in a specific order such as **ascending or descending**.
 2. Custom filtering is used to filter data using **more than one condition**.
 3. Conditional formatting is available in the **Home tab**.

D. Long Answer Type Questions

- Ans.**
1. Steps:
 1. Select the range of cells.
 2. Go to the **Home tab**.
 3. Click on **Conditional Formatting**.
 4. Choose an option (e.g., Highlight Cells Rules Greater Than).
 5. Enter the value and choose formatting style.
 6. Click **OK**.

2. Sorting

Arranges data in order
 Changes position of data
 Example: A to Z

Filtering

Shows selected data only
 Does not rearrange data
 Example: Show only Science students

4

Basic Tags in HTML

A. Tick (✓) the correct option.

- Ans.**
1. (c) BR
 2. (b) <|>
 3. (b) Align

B. Fill in the blanks

- Ans.**
1. bgcolor
 2. noshade

3. face
4. <I>
5. <P>

C. Short Answer Type Questions

- Ans. 1. **bgcolor** - sets background colour of webpage
text - sets colour of text on webpage
2. It means the horizontal line will appear as a **solid line without shading**.
3. It is used to **align text in the center of the webpage**.

D. Long Answer Type Questions

- | | |
|---------------------------------|----------------------------|
| Ans. 1. <P> Tag |
 Tag |
| Creates a new paragraph | Creates a line break |
| Leaves space between paragraphs | No extra space |
| Has opening and closing tag | Empty tag (no closing tag) |
2. The tag has three main attributes:
- ◆ **Size** - sets size of text (1 to 7)
 - ◆ **Color** - sets colour of text
 - ◆ **Face** - sets font style (e.g., Arial, Times New Roman)

Example:

</> **HTML**

Text

3. HTML provides these formatting styles:
- ◆ **Bold** - makes text bold
 - ◆ **Italic** <I> - makes text italic
 - ◆ **Underline** <U> - underlines text
 - ◆ **Strike** <STRIKE> - draws line through text
 - ◆ **Subscript** <SUB> - text below line
 - ◆ **Superscript** <SUP> - text above line

5

Lists, Images and Tables in HTML5

A. Tick (✓) the correct option.

- Ans.**
1. (a) bulleted
 2. (c) Rectangle
 3. (b) <th>
 4. (a) row

B. Fill in the blanks

- Ans.**
1. numbered
 2. <dt>
 3. Tables
 4. <caption>
 5. thicker

C. Write 'T' for True and 'F' for False

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

D. Short Answer Type Questions

- Ans.**
- | | |
|--|--|
| 1.
Unordered list
Uses bullets
No sequence |
Ordered list
Uses numbers/letters
Follows sequence |
| 2. Cellpadding
Space inside a cell
Inner spacing | Cellspacing
Space between cells
Outer spacing |
| 3. ♦ colspan - merges columns
♦ rowspan - merges rows | |

E. Long Answer Type Questions

Ans. 1. Basic tags used in table:

- ◆ `<table>` - defines table
- ◆ `<tr>` - table row
- ◆ `<th>` - header cell
- ◆ `<td>` - data cell

Example:

`</>` HTML

```
<table>
```

```
  <tr>
```

```
    <th>Name</th>
```

```
    <th>Marks</th>
```

```
  </tr>
```

```
  <tr>
```

```
    <td>Rahul</td>
```

```
    <td>90</td>
```

```
  </tr>
```

```
</table>
```

2. ◆ **type** - defines numbering style (1, A, a, I, etc.)

◆ **start** - defines starting number of list

3. A definition list shows terms and meanings.

Tags used:

- ◆ `<dl>` - definition list
- ◆ `<dt>` - term
- ◆ `<dd>` - definition

4. The alt attribute:

- ◆ Shows text if image is not loaded
- ◆ Helps visually impaired users
- ◆ Improves webpage accessibility

6

Conditional Statements in Python

A. Tick (✓) the correct option.

- Ans.**
1. (d) None of these
 2. (c) If...elif...else
 3. (a) Hello
 4. (c) 7

B. Fill in the blanks

- Ans.**
1. else
 2. True
 3. conditional
 4. false

C. Write 'T' for True and 'F' for False

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

D. Short Answer Type Questions

- Ans.**
1. **</> Python**
if condition1:
 if condition2:
 # statements
else:
 # statements
else:
 # statements
 2. Decision making statements are used to **execute different blocks of code based on conditions** (True or False).
 3. **</> Python**
if condition:
 # statements

E. Long Answer Type Questions

Ans. 1. (Explanation as per diagram on page 62)

- ◆ Check first condition
- ◆ If true - execute block
- ◆ Else check next condition
- ◆ Continue until condition is true
- ◆ If none true - execute else block

2. Python

```
c = float(input("Enter temperature in Celsius: "))
```

```
f = (c * 9/5) + 32
```

```
print("Temperature in Fahrenheit =", f)
```

3. Python

```
cm = float(input("Enter length in cm: "))
```

```
inch = cm / 2.54
```

```
print("Length in inches =", inch)
```

7

More on Animate CC

A. Tick (✓) the correct option.

- Ans. 1. (b) Classic**
- 2. (c) 24**
- 3. (c) Green**
- 4. (c) layers**
- 5. (b) Masking**

B. Fill in the blanks

- Ans. 1. Masking**
- 2. Layers**
- 3. Properties**
- 4. Break Apart**

C. Write 'T' for True and 'F' for False

- Ans. 1. T**

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

D. Short Answer Type Questions

Ans. 1. Tween is the process of creating intermediate frames between two frames to produce animation.

2. ♦ Motion Tween
- ♦ Shape Tween
- ♦ Classic Tween

3. Motion Tween

Used for movement, rotation, scaling
 Uses symbols
 More advanced

Classic Tween

Used for transition
 Uses frames
 Older method

E. Long Answer Type Questions

Ans. 1. Layers are sheets used to place drawings, animations, and objects separately.

They help:

- ♦ Organize content
- ♦ Avoid overlapping
- ♦ Edit objects easily

2. (From steps on page 76-77)

1. Select **Text Tool**
2. Type text on stage
3. Use **Properties panel** to change font, size, color
4. Use **Modify - Break Apart**
5. Select characters individually
6. Apply animation or color changes

8

Internet Services

A. Tick (✓) the correct option.

- Ans.** 1. (a) True
2. (b) Tweets
3. (c) Twitter
4. (d) Blogging

B. Fill in the blanks

- Ans.** 1. blogger
2. Facebook
3. blogging
4. Cloud computing
5. Cash on Delivery

C. Write 'T' for True and 'F' for False

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

D. Short Answer Type Questions

- Ans.** 1. ♦ Facebook
♦ Instagram
♦ Twitter
2. RSS (Really Simple Syndication) is a system that provides **updated information from websites automatically.**
3. Facebook was opened for public use in **2006.**
4. Blogging is the process of **writing and publishing articles or posts on a website.**

E. Long Answer Type Questions

- Ans.** 1. ♦ Provides services like storage, software, and databases over Internet
♦ Data can be accessed anytime, anywhere
♦ Saves storage space on computer

- ◆ Fast and efficient
- ◆ Cost-effective

2. **(a) Newsgroup**

A newsgroup is an online discussion group where users share ideas and information.

(b) Skype

Skype is an application used for video calls, voice calls, and messaging over the Internet.

(c) E-banking

E-banking is a system that allows users to **perform banking activities online** using internet.

3. ◆ Mobile Banking
- ◆ Electronic Clearing System (ECS)
 - ◆ Smart Cards
 - ◆ Electronic Fund Transfer (EFT)
 - ◆ Telephone Banking
 - ◆ Internet Banking
 - ◆ Home Banking



Internet-Ethics and Safeguard

A. Tick (✓) the correct option.

- Ans.**
1. **(b)** Spyware
 2. **(b)** Pop-up Ads
 3. **(c)** Cookie
 4. **(a)** Cyberbullying
 5. **(c)** Social engineering

B. Fill in the blanks

- Ans.**
1. Viruses
 2. Keyloggers
 3. Hacker
 4. digital footprint

5. strong

C. Write 'T' for True and 'F' for False

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

D. Short Answer Type Questions

- Ans.**
1. **Cyberbullying is the act of** harassing or threatening someone using digital technology or internet.
 2. Social engineering is a method of **tricking people into giving confidential information.**
 3. GIGO = **Garbage In, Garbage Out**

E. Long Answer Type Questions

- Ans.**
1.
 - ◆ Use strong passwords
 - ◆ Install antivirus software
 - ◆ Avoid suspicious links/emails
 - ◆ Keep system updated
 - ◆ Use firewall protection
 - ◆ Do not share personal information
 2.
 - ◆ Others can access your account
 - ◆ Risk of hacking
 - ◆ Loss of privacy
 - ◆ Unauthorized transactions may happen
 3.
 - ◆ Guide children about safe internet use
 - ◆ Monitor online activities
 - ◆ Teach not to share personal information
 - ◆ Help handle cyberbullying
 - ◆ Encourage responsible behaviour online

A. Tick (✓) the correct option.

- Ans.** 1. (c) Political
2. (c) 2015
3. (d) Goal 3
4. (a) GIGO
5. (b) Exclusion

B. Fill in the blanks

- Ans.** 1. pillars
2. space
3. education
4. optimize
5. dark-skinned

C. Write 'T' for True and 'F' for False

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

D. Short Answer Type Questions

- Ans.** 1. Sustainable development means **meeting present needs without harming the ability of future generations to meet their needs.**
2. There are **17 SDGs**, such as:
- ◆ No Poverty
 - ◆ Zero Hunger
 - ◆ Good Health
 - ◆ Quality Education

- ◆ Gender Equality
- ◆ Clean Water
- ◆ Affordable Energy
- ◆ Economic Growth
- ◆ Industry & Innovation
- ◆ Reduced Inequalities
- ◆ Sustainable Cities
- ◆ Responsible Consumption
- ◆ Climate Action
- ◆ Life Below Water
- ◆ Life on Land
- ◆ Peace & Justice
- ◆ Partnerships

3. GIGO = **Garbage In, Garbage Out**

E. Long Answer Type Questions

- Ans.**
1. The three pillars are:
 - ◆ **Social** - focus on people and well-being
 - ◆ **Economic** - focus on growth and development
 - ◆ **Environmental** - focus on nature and resources
 2.
 - ◆ Ending poverty
 - ◆ Improving education
 - ◆ Sustainable use of resources
 - ◆ Protecting environment
 - ◆ Promoting peace and equality
 3. AI systems sometimes show bias because:
 - ◆ Training data is not diverse
 - ◆ Some groups are underrepresented
 - ◆ Results may be unfair (e.g., facial recognition issues)

This leads to:

 - ◆ Discrimination
 - ◆ Inaccurate results
 - ◆ Social inequality

A. Tick (✓) the correct option.

- Ans**
- 1 (b) WAN
 - 2 (b) MAN
 - 3 (c) ring topology
 - 4 (c) Router

B. Fill in the blanks.

- Ans**
- 1 NIC (Network Interface Card)
 - 2 Router
 - 3 Internet
 - 4 Coaxial cable

C. Write T for true and F for false statements.

- Ans**
- 1 T
 - 2 F
 - 3 T
 - 4 F

D. Short answer type questions.

- Ans**
- 1 A computer network is a collection of computers and devices connected together to share data, resources, and information.
 - 2 A modem (Modulator-Demodulator) is a device that converts digital signals into analog signals and vice versa. It is used to connect computers to the internet.
 - 3 A LAN card (NIC) is a hardware device that connects a computer to a network and allows it to communicate with other devices.

E. Long answer type questions.

- Ans**
- 1 Networking means connecting two or more computers so that they can share data, information, and resources. A group of connected computers is called a computer network.

Advantages of Networking:

- ◆ Data can be shared quickly between computers.
- ◆ Devices like printers and files can be shared.
- ◆ It reduces cost by sharing resources.

- ◆ We can access data from remote computers.
- ◆ It improves communication through email and video calls.
- ◆ Data can be kept secure using passwords.

2 A router and a switch are networking devices but they have different uses.

A router connects different networks and helps in sending data from one network to another. It uses IP addresses and is mainly used to connect to the internet.

A switch connects devices within the same network. It sends data only to the required device using MAC address.

Difference:

Router

Connects different networks
 Uses IP address
 Used for internet

Switch

Connects devices in same network
 Uses MAC address
 Used for local network

3 PAN and LAN are types of networks based on size and area.

A PAN (Personal Area Network) is a small network used for personal devices like mobile phones and laptops. It covers a very small area.

A LAN (Local Area Network) is a larger network used in schools, offices, or buildings. It connects many computers and allows sharing of resources.

Difference:

PAN

Small area
 Few devices
 Personal use
 Example: Bluetooth

LAN

Larger area
 Many devices
 School/office use
 Example: Computer lab

4 Network topology is the arrangement of computers and devices in a network.

Bus Topology:

All computers are connected to a single cable. It is simple and low cost, but if the main cable fails, the whole network stops.

Star Topology:

All computers are connected to a central hub or switch. It is easy to manage, and failure of one computer does not affect others. However, if the hub fails, the network stops.

A. Tick (✓) the correct option.

- Ans**
- 1 (a) Access
 - 2 (b) record
 - 3 (a) field
 - 4 (b) long text

B. Fill in the blanks.

- Ans**
- 1 Tables
 - 2 Title bar
 - 3 field
 - 4 primary key
 - 5 datasheet view

C. Write T for true and F for false statements.

- Ans**
- 1 F
 - 2 T
 - 3 T
 - 4 T

D. Short answer type questions.

- Ans**
- 1 A DBMS is software that allows users to create, access, update and manage databases.
 - 2 Short Text, Long Text, Number, Date/Time, Currency, AutoNumber, Yes/No, OLE Object, Hyperlink, Attachment, Calculated, Lookup Wizard.
 - 3 Design View is used to create and modify the structure of a table by defining fields, data types, and properties.
 - 4 A primary key is a field (or combination of fields) that uniquely identifies each record in a table.

E. Long answer type questions.

- Ans**
- 1 A DBMS has many advantages that help in managing data efficiently. It reduces data redundancy, so the same data is not repeated again and again. It also ensures data consistency, meaning the data remains correct and updated.
DBMS allows data sharing, so multiple users can use the database at the

same time. It also provides data security by restricting access to authorized users only. Additionally, it maintains data integrity, which ensures that the data is accurate and reliable.

- 2 To create a table in MS Access 2016, first click on the Create tab and choose Table Design. Then enter the field names and select appropriate data types for each field.

After that, set the field properties if needed and choose a Primary Key to uniquely identify records. Finally, click on the Save button, give a name to the table, and save it.

3

Working with Queries, Forms and Reports

A. Tick (✓) the correct option.

- Ans**
- 1 (a) Query
 - 2 (c) Filter
 - 3 (b) Create tab
 - 4 (a) Primary key
 - 5 (b) Form Design

B. Fill in the blanks.

- Ans**
- 1 Queries
 - 2 Reports
 - 3 Relationships
 - 4 Create
 - 5 controls

C. Write T for true and F for false statements.

- Ans**
- 1 T
 - 2 T
 - 3 F
 - 4 T
 - 5 T

D. Short answer type questions.

- Ans**
- 1 A query is a database object used to display specific records from one or more tables based on given conditions.
 - 2 A form is a graphical interface that allows users to enter, edit, and view data in a database easily.

- 3 A report is used to present data from tables or queries in a formatted and printable manner.
- 4 We can format a form using options available in the Design and Format tabs, such as changing font, color, size, layout, and adding background.

E. Long answer type questions.

- Ans**
- 1 To create a query in MS Access, we can use either Query Wizard or Query Design. First, click on the Create tab and then select Query Wizard. A dialog box appears where we choose the required table or query. After that, select the fields that we want to include in the query. Click Next, choose whether we want detailed or summary information, and then give a name to the query. Finally, click on Finish and the query result will be displayed. We can also use Query Design to add conditions and filter data as per our requirement.
 - 2 To build a relationship between tables, first click on the Database Tools tab and select the Relationships option. A dialog box will appear where we add the required tables. After adding the tables, drag the primary key field from one table and drop it onto the matching field in another table. The Edit Relationships dialog box will appear. Click on Create to establish the relationship. A line will appear showing the connection between the tables. Finally, save the relationship.
 - 3 To create a form, first select the table from the Navigation Pane on which the form is based. Then click on the Create tab and choose the Form option. A form will be automatically created and opened in the Layout view. We can enter, edit, and view data in this form. If required, we can switch to Design view to make changes in the structure. Finally, click on the Save option to save the form.
 - 4 To create a report, first select the table or query for which the report is to be created. Then click on the Create tab and select the Report option. The report will be automatically generated and displayed in Layout view. We can make changes using Design or Format options. After making necessary changes, click on the Save option to save the report. The report can also be printed in a proper format.

4

Introduction to Photoshop CS6

A. Tick (✓) the correct option.

- Ans** 1 (b) graphics editing software

2 (b) Options Bar

3 (b) PSD file

B. Fill in the blanks.

Ans 1 graphics editing software

2 pixels

3 Document window

4 psd

C. Short answer type questions.

Ans 1 (a) **Toolbox:** It contains different tools used to create, edit, select and modify images.

(b) **Options Bar:** It shows options and settings for the currently selected tool.

2 ♦ Click on File - New

♦ The New dialog box appears

♦ Enter name and dimensions

♦ Choose background contents

♦ Click OK

3 The Magic Wand Tool is used to select areas of an image that have similar colors automatically.

4 Cropping means selecting a specific part of an image and removing the unwanted outer areas.

D. Long Answer Type Questions.

1 Adobe Photoshop is a powerful graphics editing software developed by Adobe. It is used to create, edit, and enhance digital images and graphics. It is widely used by designers, photographers, and students.

Features of Photoshop:

It allows us to paint and draw images using different tools like Brush and Pencil.

We can adjust colors, brightness, and contrast of images.

It provides filters to add special effects to images.

We can add text and design creative graphics.

It helps in selecting and editing specific parts of an image easily.

2 **To close a file:**

Click on the File menu

Select the Close option

The current file will be closed

To open an existing file:

Click on the File menu

Select the Open option

The Open dialog box appears

Choose the file you want to open

Click on the Open button

- 3 The Marquee Tool and Lasso Tool are both selection tools, but they are used in different ways.
- ◆ The Marquee Tool is used to select regular shapes like rectangles or circles. It is easy to use when the object has a simple shape.
 - ◆ The Lasso Tool is used to select irregular or freehand shapes. It is useful when the object does not have a fixed shape.
 - ◆ Marquee Tool works faster for simple selections, while Lasso Tool gives more control for complex selections.
- 4 The Crop Tool is used to remove unwanted parts of an image and focus on a selected area.

Steps:

- ◆ Open the image in Photoshop
- ◆ Select the Crop Tool from the toolbox
- ◆ Drag the mouse to select the area you want to keep
- ◆ Adjust the selection if required
- ◆ Press Enter or double-click inside the selection
- ◆ The image will be cropped

5

More on Photoshop CS6

A. Tick (✓) the correct option.

- Ans**
- 1 (b) Dodge tool
 - 2 (b) Path tool
 - 3 (c) Create warped text tool
 - 4 (d) Healing brush tool

B. Fill in the blanks.

- Ans**
- 1 hard-edged
 - 2 Gradient tool

- 3 Pattern Stamp Tool
- 4 toning
- 5 Warping text

C. Write T for true and F for false statements.

- Ans**
- 1 F
 - 2 F
 - 3 F
 - 4 T
 - 5 T

D. Short answer type questions.

- Ans**
- 1 The Brush Tool creates smooth strokes with soft edges, whereas the Pencil Tool creates hard-edged lines.
 - 2 The Shape Tool is used to draw different shapes such as rectangles, ellipses, polygons, etc.
 - 3 The Spot Healing Brush Tool is used to remove small imperfections such as spots, scratches, and marks from an image.
 - 4 A layer is like a transparent sheet on which parts of an image are placed and can be edited independently.

E. Long answer type questions.

- Ans**
- 1 The Color Replacement Tool in Photoshop is used to replace one color in an image with another color without affecting the details and texture of the image. It is very useful when we want to change the color of an object while keeping its original shading and highlights intact.

Steps to use Color Replacement Tool:

Step 1: Select the foreground color that you want to apply.

Step 2: Choose the Color Replacement Tool from the Tools panel.

Step 3: Adjust options like Tolerance and Limits from the Options bar.

Step 4: Move the pointer over the area and drag on the image to replace the color.

- 2 The Patch Tool is used to remove unwanted areas or imperfections from an image by replacing them with pixels from another part of the image. It is especially useful for fixing larger areas like blemishes, marks, or unwanted objects.

Steps to use Patch Tool:

Step 1: Open the image in Photoshop.

Step 2: Select the Patch Tool from the Tools panel.

Step 3: Draw a selection around the area that needs to be corrected.

Step 4: Drag the selected area to another clean area of the image.

Step 5: Release the mouse button to apply the patch.

- 3** Dodge and Burn Tools are used to adjust the brightness of an image. The Dodge Tool is used to lighten (brighten) specific areas, while the Burn Tool is used to darken areas. These tools help in enhancing the highlights and shadows of an image.

Steps to use Dodge Tool:

Step 1: Select the Dodge Tool from the Toolbox.

Step 2: Choose the brush size and type from the Options bar.

Step 3: Select the Range (Highlights, Midtones, or Shadows).

Step 4: Click and drag over the part of the image you want to lighten.

Step 5: Repeat the process until the desired effect is achieved.

- 4** A new layer is added in Photoshop to work on different parts of an image separately without affecting the original image. Layers help in organizing and editing images easily.

Steps to add a new layer:

Step 1: Click on the Layer menu and select New Layer.

Step 2: A dialog box appears; enter a name for the new layer.

Step 3: Choose options like color and opacity if needed.

Step 4: Click on OK to create the layer.

Step 5: The new layer will appear in the Layers panel above the background layer.

6

More on HTML

A. Tick (✓) the correct option.

- Ans**
- 1 (b)** Form
 - 2 (a)** `Google Home Page`
 - 3 (a)** Internal linking
 - 4 (c)** `<INPUT type = "Text box">`
 - 5 (a)** `<SELECT>`

B. Fill in the blanks.

- Ans**
- 1** chain
 - 2** blue
 - 3** External

4 Form

5 user

C. Write T for true and F for false statements.

1 F

2 T

3 T

4 F

5 T

D. Short answer type questions.

- Ans**
- 1 A hyperlink is a word, group of words, or image that we can click to go to another page or document.
 - 2 A form is a collection of fields used to collect information from users on a web page.
 - 3 ♦ Name
♦ Action
♦ Method
 - 4 A list box control is used to select one or multiple options from a list.

E. Long Answer Type Questions.

- Ans**
- 1 **Internal Linking:** Internal linking is used to connect different sections within the same web page. It helps users quickly jump to a specific part of the page without scrolling. This is done using anchor (<a>) tags with a name or id attribute.
External Linking: External linking is used to connect one web page to another web page or website. When a user clicks on an external link, a new page or website opens in the browser. It is commonly used to provide additional information or references.
 - 2 The <INPUT> element is used to take data from users in a form. It has several important attributes:
Type: This attribute defines the kind of input control, such as text box, password, checkbox, radio button, etc.
Name: It is used to identify the input field and is important when sending data to the server.
Value: It sets the default value that appears in the input field.
These attributes help in designing different types of form controls and collecting user data effectively.

3 ♦ A textbox is used to enter a single line of text.

♦ `<input type="text">`

♦ Suitable for short input (like name, email).

♦ Fixed small size

♦ Name, Username

♦ A textarea is used to enter multiple lines of text.

♦ `<textarea>`

♦ Suitable for long input (like comments, feedback).

♦ Can be larger and adjustable (rows & columns)

♦ Address, Feedback

4 **Checkbox**

♦ Allows selecting multiple options

♦ Each option works independently

♦ `<input type="checkbox">`

♦ When multiple choices are allowed

♦ Subjects, Hobbies

Radio Button

♦ Allows selecting only one option

♦ Options are linked in a group

♦ `<input type="radio">`

♦ When only one choice is required

♦ Gender, Stream selection

7

Loops in Python

A. Tick (✓) the correct option.

- Ans**
- 1 (c) Compute
 - 2 (d) break statement
 - 3 (a) for statement
 - 4 (c) break

B. Fill in the blanks.

- Ans**
- 1 while
 - 2 non-zero, false
 - 3 range, start, stop, step
 - 4 break, continue

C. Write T for true and F for false statements.

- 1 F

- 2 F
- 3 T
- 4 T
- 5 T

D. Short answer type questions.

- Ans**
- 1 Looping is the process of repeating a set of instructions multiple times until a condition is satisfied.
 - 2 The range() function is used to generate a sequence of numbers for iteration in loops.
 - 3 Jump statements (break and continue) are used to control the flow of loops by skipping or terminating iterations.

E. Long Answer Type Questions.

- Ans**
- 1 The for loop is used to repeat a block of statements for a fixed number of times. It works with sequences like lists, strings, or numbers generated using the range() function. The loop automatically takes each value one by one and executes the given statements.
The for loop is useful when we already know how many times we want to repeat the task.

</> Python

```
for i in range(1,6):  
    print(i)
```

This program prints numbers from 1 to 5. Here, the loop runs five times, taking values from the range function.

- 2 The while loop is used to execute a block of statements as long as a given condition is true. It is mainly used when the number of iterations is not fixed in advance.

First, the condition is checked. If it is true, the statements inside the loop are executed. This process continues until the condition becomes false.

</> Python

```
i = 1  
while i <= 5:  
    print(i)  
    i += 1
```

This program prints numbers from 1 to 5. The loop stops when the value of i becomes greater than 5.

Flowchart Explanation:

- ◆ Start
- ◆ Check condition
- ◆ If true - execute loop body
- ◆ Repeat
- ◆ If false - exit loop

3 The break and continue statements are jump statements used in loops to control the flow of execution, but they work in different ways.

Break Statement

- ◆ Terminates the loop completely
- ◆ Control immediately moves outside the loop
- ◆ Used when we want to stop the loop before it finishes
- ◆ Loop execution stops entirely
- ◆ Commonly used when a condition is met to exit loop

</> Python

```
for i in range(1,6):
    if i == 3:
        continue
    if i == 5:
        break
    print(i)
```

Explanation:

When $i = 3$, the continue statement skips printing 3.

When $i = 5$, the break statement stops the loop completely.

Output:

1
2
4

Continue Statement

- ◆ Skips only the current iteration
- ◆ Control goes to the next iteration of the loop
- ◆ Used when we want to skip a specific condition in the loop
- ◆ Loop continues executing remaining iterations
- ◆ Commonly used to ignore certain values during iteration

8

Cyber Ethics

A. Tick (✓) the correct option.

- Ans**
- 1 (a) Spamming
 - 2 (c) Flooding
 - 3 (a) patent
 - 4 (a) Cyber vandalism
 - 5 (d) none of these

B. Fill in the blanks.

- Ans**
- 1 individual
 - 2 cyberstalking
 - 3 Carding
 - 4 20
 - 5 digital dossier

C. Write T for true and F for false statements.

- Ans**
- 1 T
 - 2 T
 - 3 F
 - 4 T
 - 5 F

D. Short answer type questions.

- Ans**
- 1 Computer ethics are moral principles that guide the proper use of computers and technology.
 - 2 Carding is an online fraud where criminals steal bank or credit card details to withdraw money.
 - 3 Software piracy is the illegal copying, sharing, or distribution of software without permission.
 - 4 Plagiarism is copying someone else's work or ideas and presenting them as your own.

E. Long Answer Type Questions

Ans 1 Cyberbullying is the act of harassing, insulting, or threatening a person using digital platforms such as social media, emails, or messages. It includes posting hurtful comments, spreading rumors, or sending offensive messages to someone.

Cyberstalking is a more serious form of online harassment where a person continuously follows, monitors, or threatens another person using the internet. The stalker may send repeated messages, track activities, or try to scare the victim.

Both are harmful and can affect a person's mental health. Therefore, such activities are considered punishable offenses.

2 Intellectual Property Rights (IPR) are the legal rights given to a person for their creations such as inventions, literary works, designs, music, etc. These rights protect the creator from unauthorized use of their work.

Two types of Intellectual Property Rights are:

◆ **Patent:** A patent is given for new inventions. It gives the inventor exclusive rights to use or sell the invention for a certain period (usually 20 years).

◆ **Copyright:** Copyright protects original works such as books, music, films, and software. It prevents others from copying or using the work without permission.

These rights encourage creativity and innovation.

3 To stay safe online and promote positive behaviour, the following cybersafety measures should be followed:

◆ Use strong passwords with a combination of letters, numbers, and symbols.

◆ Do not share personal information like address, phone number, or passwords.

◆ Avoid clicking on suspicious links or downloading files from unknown sources.

◆ Use trusted websites and applications only.

◆ Be respectful while communicating online and avoid posting harmful content.

- ◆ Regularly update passwords and security settings.
- ◆ Report any suspicious or harmful online activity to a trusted adult or authority.

These measures help users stay safe and responsible in the digital world.

- 4 A digital footprint is the record of all the activities a person performs on the internet. It includes the information we share, websites we visit, emails we send, and online transactions we make.

Digital footprints are of two types:

- ◆ **Active Digital Footprint:** This is the data that a user intentionally shares online, such as social media posts, comments, photos, and emails.
- ◆ **Passive Digital Footprint:** This is the data collected without the user's direct knowledge, such as browsing history, location data, and cookies.