



PICK TOOL

 Coding

 Python

 Scratch

 Artificial Intelligence

Teacher's Manual

1 to 5

 Office

 HTML



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PICK TOOL - 1

Chapter - 1 — Computer - A Machine

Beginning Drill

1. Cat
2. Cycle

Mock Time

1. Yes
2. Yes

Exercise

1. a. (i) b. (iii) c. (i) d. (ii)
2. a. electricity b. cat c. man-made
3. a. The two natural things are flowers and birds.
b. The two man-made things are car and fan.
c. Machine is a man-made thing which runs on power.
d. The two machines which run on fuel are aeroplane and car.
4. a. False b. False c. True d. True e. True

Activity Time

1. a. MACHINE b. NATURAL THINGS c. ELECTRONIC
d. COMPUTER

3. Simple Machine

1. Sewing Machine
2. Cycle

Electronic Machine

1. Computer
2. Television

Teacher's Point

1.

Living Things	Non-Living Things
(a) Things that have life are called living things.	(a) Things that do not have life are called non-living things.
(b) Living things need food.	(b) Non-living things do not need food.
(c) Examples– humans, plants, animals, etc.	(c) Examples– car, bus, table, etc.

2. Machines can do different jobs to help us. They work very fast and make our work easier.

Chapter - 2 — Parts of a Computer

Beginning Drill

Eyes Nose Ears Hands Mouth

Mock Time

1. A computer has four parts.
2. A monitor looks like a big TV screen.

Exercise

1. a. (i) b. (iii) c. (ii) d. (ii)
2. a. keys b. printout c. brain
3. a. The computer has four parts which are CPU, mouse, monitor and keyboard.
b. Monitor shows pictures, words and videos on the computer.
c. CPU is called the brain of a computer.
d. A mouse has two or three buttons on it.
4. a. True b. False c. True d. True e. False

Activity Time

1. a. KEYBOARD b. MOUSE c. MONITOR
d. SPEAKERS
2. Do it yourself

Lab Activity

1. a. Keyboard, mouse, scanner, webcam, microphone, monitor, printer, speakers, headphones, projector, modem, etc.
b. Monitor – 1 Keyboard – 1
Mouse – 1 Printer – 1
2. 1. Keyboard (✓) 2. Ball (✗) 3. Speaker (✓) 4. Printer (✓)
5. UPS (✓) 6. CPU (✓) 7. Sparrow (✗)
8. Bat (✗) 9. Mouse (✓) 10. Monitor (✓)

Teacher's Point

2. **Printer** is used for producing hard copies of reports and other important documents.

Speaker gives an output audio from electronic devices like music, movies, etc.

UPS provides power backup and protects against power surges or outages. It also ensures that electronic device remain operational during power failure.

Chapter - 3 — Uses of a Computer

Time 4 Fun

- Drawing Walking Playing games Jumping
Swimming Listening to music Solving sums Cooking

Mock Time

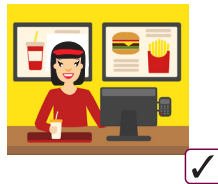
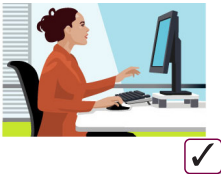
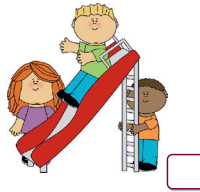
1. school 2. useful

Exercise

1. a. (iii) b. (i) c. (iii) d. (i)
2. a. music b. store c. tickets
3. a. The two places where computer is used are school and office.
b. The two uses are that computer is used for playing games and listening to music.
c. The two uses are that computer is used for teaching, learning and making report cards.
d. It is useful in many ways like in sending e-mails, printing bills and typing letters, etc.
4. a. True b. False c. True d. False e. True

Activity Time

1. a. HOSPITAL b. SCHOOL c. HOUSE
d. OFFICE
2. Do it yourself
3.



Lab Activity

- a. Restaurant b. Shop c. Railway Station
d. Bank e. Airport

Teacher's Point

2. Computer in our daily lives is used in various works like paying bills, watching movies, listening to songs, managing home budgets, etc.

Chapter - 4 — The Keyboard

Beginning Drill

KEYBOARD

Time 4 Fun

KEYBOARD

Mock Time

1. 26 Alphabet keys
2. Two Enter keys

Exercise

1. a. (iii) b. (ii) c. (i) d. (ii)
2. a. keys b. Enter c. 0 to 9
3. a. Keyboard is an important part of computer which is used for typing words, letters, numbers, etc. The two types of keys are alphabet keys and number keys.
b. Enter key is used to move the cursor to the next line.
c. Alphabet keys are used to type letters and words on a computer.
d. Delete key is used to delete anything from the computer. Backspace key is used to erase letters typed on the left side of a cursor.
4. a. True b. True c. False d. False e. False

Activity Time

1. a. Number keys b. Alphabet keys c. Enter key
d. Spacebar key e. Backspace key
2. a. ALPHABET b. BACKSPACE c. ENTER d. NUMBER
e. SPACEBAR f. DELETE

Chapter - 5 — The Computer Mouse

Mock Time

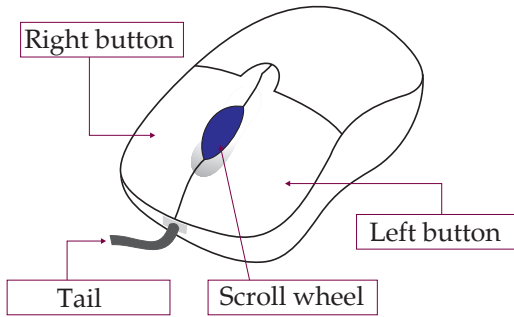
1. This is a mouse
2. Scroll wheel
3. Yes

Exercise

1. a. (ii) b. (ii) c. (iii) d. (ii)
2. a. pointing b. Double c. dropping
3. a. Mouse pointing device is used to point and select items on the monitor.
b. The slanting arrow on the computer screen is called mouse pointer.

- c. Index finger must be placed on the left mouse button.
 - d. By pressing the mouse button.
 - e. When we keep the mouse button pressed and move the mouse is called dragging.
4. a. True b. False c. False d. True e. True

Activity Time



Teacher’s Point

1. Primary functions of a computer mouse are:
 - a. Pointing – It moves the cursor on the screen.
 - b. Clicking – It selects the items or executes the command by pressing button.
 - c. Dragging – It keeps the mouse button pressed and move the cursor.
 - d. Dropping – Releasing the mouse button after dragging.
 - e. Scrolling – Navigating through content using the scroll wheel.

Chapter - 6 — Paint

Mock Time

1. Yes
2. Brush tool

Exercise

1. a. (ii) b. (ii) c. (i) d. (iii)
2. a. ribbon b. canvas c. eraser
3. a. Paint is a program which allows to draw and make colourful drawings on the computer.
- b. Line tool and Rectangle tool are the tools of Paint window.
- c. Color box contains variety of colours in the Paint.
- d. Shapes help in creating structured and precise designs or illustrations like rectangle, circle, line, etc. and colour is used to colour the shapes and structured which you draw.

e. Fill with color tool is used to fill colours in drawings.

4.

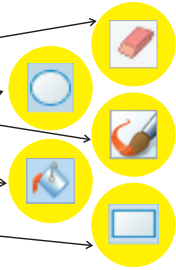
a. Brush tool

b. Eraser tool

c. Fill with Color tool

d. Rectangle tool

e. Oval tool



Activity Time

1. OVAL
2. ERASER
3. BRUSHES
4. FILL WITH COLOR
5. RECTANGLE
6. LINE

Chapter - 7 — Introduction to Artificial Intelligence

Time 4 Fun

- a. Navigation App (✓)

Mock Time

1. Narrow AI, General AI, Superintelligent AI, etc.
2. AI looks like a super smart robot.

Exercise

1. a. (ii) b. (iii) c. (ii)
2. a. smart b. Artificial Intelligence c. Robot
3. a. Artificial Intelligence means giving a computer or a machine the ability to think and learn like a human.
b. Voice Assistant is an example of Artificial Intelligence.
c. Self driving cars, Navigation App are the examples of Artificial Intelligence.
4. a. True b. False c. True

Teacher's point

2. Artificial Intelligence systems work by using algorithms and data.

Fun with Coding

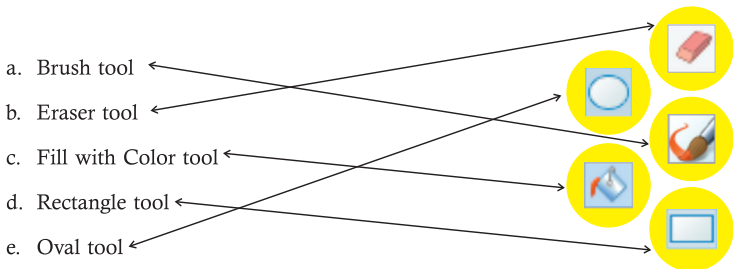
1. Wednesday
2. 12
3. 16
4. $6+4$
5. 4
6. 2
7. 4
8. $9-4$

WORKSHEET-1

- a. electricity b. man-made c. brain d. book e. printout
- a. (i) b. (ii) c. (ii) d. (iii) e. (i)
- a. False b. True c. True d. True e. False
- a. Aeroplane and car
b. Monitor shows you pictures, videos and words on the computer.
c. CPU
d. Computer is used at home for drawing and colouring and for playing games.
e. Flowers, animals
- a. HOSPITAL b. SCHOOL c. HOUSE
d. OFFICE e. SHOPS

WORKSHEET-2

- a. keys b. pointing c. Eraser d. AI e. 0 to 9
- a. (ii) b. (iii) c. (iii) d. (i) e. (iii)
- a. True b. False c. True d. False e. True
- a. Artificial Intelligence means giving a computer or a machine the ability to think and learn like a human.
b. Enter key moves the cursor to the next line.
c. Index finger
d. A keyboard is a set of small buttons called keys.
e. Brush tool, Line tool
- a. Number keys b. Alphabet keys c. Enter key
d. Spacebar key e. Backspace key
-



National Cyber Olympiad

- (c)
- (d)
- (c)
- (a)
- (d)
- (a)
- (b)
- (d)
- (a)
- (b)
- (a)
- (c)
- (b)
- (c)
- (d)
- (a)
- (a)

PICK TOOL - 2

Chapter - 1 — A Machine

Beginning Drill

1. Fan
2. Computer

Time 4 Fun

1. Mouse
2. Monitor

Mock Time

1. Desktop computers are the computer which are usually found in home, school, offices and shops, etc.
2. The full form of PC is Personal Computer.

Exercise

1. a. (iv) All of these b. (iii) Printing documents c. (ii) Laptop
d. (ii) Private e. (ii) laptop
2. a. clothes b. faster c. medical
d. cartoon and movies e. Desktop
3. a. A computer is an electronic machine that can store and process information.
b. Desktop computer, Laptop Computer are the types of computers.
c. Computers in schools are used for preparing examination papers and results.
d. Computer in bank is used for withdrawing money from an ATM.
e. Desktop computer is mostly big in size and found in home, school, offices, shops, etc. Laptop computers are small in size and can be easily carried anywhere.
4. a. True b. False c. True d. False

Activity Time

1. a. HOMES b. BANKS c. HOSPITALS
s. RAILWAY STATION e. SCHOOLS
2. Do it yourself.

Lab Activity

Desktop Computer

Teacher's Point

2. Basically computers help us to save time and increase productivity.

Chapter - 2 — Computer Parts

Beginning Drill

1. Desktop Computer
2. Laptop Computer

Time 4 Fun

Monitor - ✗ (Keyboard) Speakers - ✓ Mouse - ✗ (Monitor)
Printer - ✓ Keyboard - ✗ (Mouse)

Mock Time

1. We talk to the computer by using keyboard for typing text, letters, symbols and give commands to the CPU.
2. Yes, speaker differ from a microphone.

Exercise

1. a. (ii) Typing b. (ii) Selecting c. (ii)
d. (i) Printer e. (ii) Printer
2. a. 104 b. optical c. arrow
d. mouse e. hard copy
3. a. Monitor is the main part of computer which displays all the work done by us. It looks like a TV.
b. Mouse helps to move or select objects on the computer screen.
c. Printer is used to print the text or picture on paper. The two types of printers are Laser and Inkjet printer.
d. Speakers help to listen music, videos, etc. on a computer. Microphone helps to talk to your friends.
e. UPS is important because it gives power to computer even if the electricity goes out.
4. 1. Central Processing Unit 2. Digital Versatile disk
3. Compact Disc
5. a. True b. True c. True d. True e. True

Activity Time

2. PRINTER MICROPHONE SCANNER
KEYBOARD SPEAKERS

Lab Activity

1. 1. MONITOR 2. KEYBOARD 3. MOUSE
4. CPU 5. PRINTER
2. a. 1 b. 1 c. 1 d. 1 e. 1
f. 1 g. 2 h. 1

Teacher's Point

2. It stores the required information in the system of the computer.

Chapter - 3 — Keyboard

Time 4 Fun

a. KEYBOARD

b. BACKSPACE

Mock Time

1. 10

2. Yes

Exercise

1. a. (i) QWERTY b. (i) left c. (i) Enter d. (i) symbol e. 10

2. a. symbol b. letters c. QWERTY

d. Arrow e. capital

3. a. Computer keyboard has many buttons on it called keys. It is used to type letters, numbers and symbols.

b. Spacebar gives space between two letters, sentences or numbers.

c. Enter key begins a new line. It is also called return key.

d. Caps Lock key is used to type alphabet in capital letters.

e. Numeric keypad inputs or type numbers in the computer.

4. a. (iii)

b. (v)

c. (iv)

d. (ii)

e. (i)

Activity Time

1. a. ALPHABET

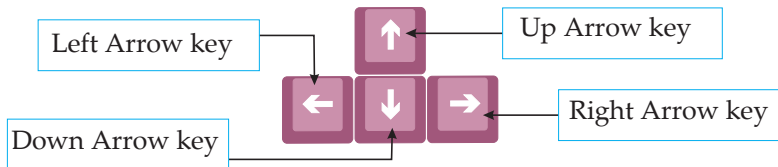
b. NUMERIC

c. KEYS

d. DELETE

e. SPACEBAR

2.



Lab Activity

1. Do it yourself

2. Do it yourself

Chapter - 4 — Mouse

Beginning Drill

3

Time 4 Fun

Optical Mouse ✓

Mock Time

1. Index finger

2. Yes

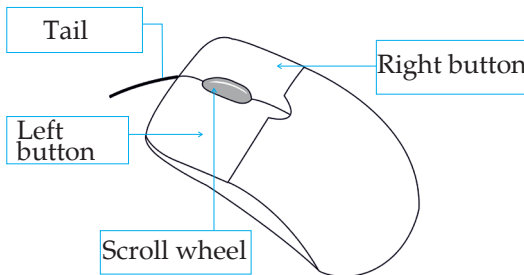
3. Yes

Exercise

- (iii) move b. (iii) Both (i) and (ii) c. (i) Optical
 - (iii) Both (1) and (ii) e. (i) once
- Optical b. double-click c. draw
 - scroll wheel e. arrow
- It is a small pointing device used to select and open items on a computer screen with the help of a mouse pointer. We can play games on it and it allows to draw and colour pictures.
 - Ball mouse has a ball on the underside and when the ball moves on a mouse pad, the mouse pointer moves on the screen. Optical mouse uses a red light to move on the screen and it is the advance version.
 - Clicking means pressing down the mouse button and then releasing it quickly.
 - Single-click means pressing the left mouse button once. Double-click means pressing the left mouse button twice quickly without releasing it.
 - Dragging means clicking and holding down the mouse button while moving the mouse pointer. Dropping is releasing the mouse button to put the things down in a new place.
- False b. True c. False d. False e. True

Activity Time

1.



- (ii) b. (iii) c. (i)

Lab Activity

- Do it yourself
- Index finger b. Middle finger c. Mouse cursor

Teacher's Point

1. BASIC CLICKING

Single click– Press and release the mouse button once.

Double click– Press and release the mouse button twice.

DRAGGING

Click and Drag– Press down the mouse button and hold it while moving the cursor.

Drag and Drop– Involves clicking on an object, dragging it to a different location and then releasing the mouse button to drop it there.

2. (a) **Positioning**– Sit with your back straight and your feet flat on the floor.
- (b) **Grip**– Rest your whole hand on the mouse.
- (c) **Movement**– Use your whole arm to move the mouse rather than just your wrist.
- (d) **Clicking**– Use a gentle but firm click to avoid unnecessary strain.

Chapter - 5 — Start and Shutdown a Computer

Beginning Drill

UPS

Time 4 Fun

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

Mock Time

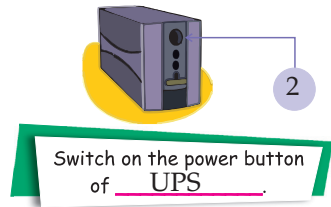
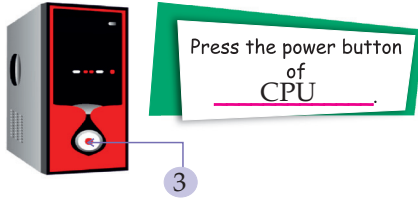
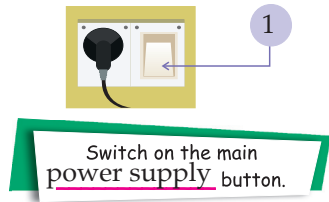
1. 4 parts
2. Booting means a process to start a computer.

Exercise

1. a. (i) Booting the system b. (iii) Press the power button
c. (iv) Taskbar d. (ii) Icons
e. (ii) Switch off the main power supply button
2. a. power supply b. desktop c. Shutting down
d. Start button
3. a. We switch on the main power supply button to start a computer.
b. Desktop is the main screen that contains start button, icons, taskbar and wallpapers.
c. Icons are small pictures that appear on a desktop.
d. We close all the files and programs.
e. Firstly, we click on the Start button. Then click on power button after that click on Shutdown button. After that switch off the monitor power button, then switch off the UPS button and lastly switch off the main power supply button.
5. a. True b. True c. True d. False e. False

Activity Time

1.



2. a. He should switch on the main power supply button.
b. She should shut down the computer.

Lab Activity

1. Step 1: Click on the Start button
Step 2: Click on the Power button
Step 3: Click on the Shutdown button
Step 4: Switch off the monitor power button
Step 5: Switch off the UPS button
Step 6: Switch off the main power supply button.

Chapter - 6 — More on Paint

Time 4 Fun



Exercise

1. a. (iv) Tools b. (iii) Typing text c. (iv) Magnifier
d. (iii) File tab e. (ii) Shift+O
2. a. Paint b. Ribbon c. Text d. Pencil e. Ctrl+S
3. a. Paint program that allows you to draw and paint on the computer.
Title bar and Ribbon are parts of Paint window.
b. Color Picker tool is used to copy colour from one part of the drawing to another.
c. Pencil tool is used to draw thin, free from lines or curves.

Exercise

- (iii) Artificial Intelligence
 - (i) Voice assistant
 - (ii) Control lights
- Artificial Intelligence
 - Navigation
 - Robot
- It is a special kind of computer technology that helps machines like robots, computer, think and make decisions on their own.
 - AI allows computers and machines to simulate human intelligence and problem-solving capabilities.
 - Smart Home is like a house with superpowers. It uses special technology to listen to your commands and make things happen.
- True
 - True
 - True
 - True

Fun with Coding

- brother and sister
- 48
- 0
- 14

WORKSHEET-1

- arrow
 - double click
 - optical
 - medical
 - symbol
- (i) One
 - (i) QWERTY
 - (i) Symbol
 - (iii) Printing documents
 - (i) Printer
- F
 - T
 - F
 - T
 - F
- Printer is used to print the text or pictures on paper. The two types of printer are inkjet and laser printer.
 - It generates a space in characters, which is a blank area used to separate words and other elements in text.
 - optical mouse uses a red light to detect the movement on computer screen. Ball mouse uses a rubber ball that rolls over the surface.
 - Dragging means clicking and holding down the mouse button on an object and moving the pointer to a new location.
Dropping means releasing the mouse button to place the item at new location.
 - To withdraw money from ATM and for managing customer accounts, balances and provide statements and transaction history.
- ALPHABET
 - NUMERIC
 - KEYS
 - DELETE
 - SPACEBAR
- (iii)
 - (v)
 - (iv)
 - (ii)
 - (i)

WORKSHEET-2

- a. power b. Paint c. Ribbon d. Pencil e. AI
- a. (iii) Line tool b. (iv) Tools c. (i) Voice assistant
d. (ii) Icons e. (ii) Control lights
- a. T b. T c. T d. F e. T
- a. The color picker tool is used to select and identify colors within digital applications.
b. Artificial Intelligence is a special kind of computer technology that helps machines, like computers and robots, think and make decisions on their own.
c. Tux Paint is a free, open-source drawing software designed for children.
d. Paint is a basic graphics editing program. Toolbar and canvas are two parts of Paint window.
e. We should close all the files and programs before shutting down a computer.

5.



Pencil tool



Magnify tool



Eraser tool



Fill with color tool



Brush tool

6. a. (ii) b. (iv) c. (v) d. (iii) e. (i)

National Cyber Olympiad

- (c) Input
- (c) Laptop
- (a) Process data
- (d) Cursor
- (a) The main screen containing all icons
- (b) Tablet
- (a) Spacebar key
- (d) All of these
- (c) Microphone
- (a) Delete key
- (d) Accessories
- (a) Paint
- (d) All of these
- (a) Dry cloth

PICK TOOL - 3

Chapter - 1 — A Smart Machine

Beginning Drill

Do it yourself

Mock Time

1. CRT, LCD
2. School

Time 4 Fun

1. machine
2. fast

Exercise

1. a. (i) smart machine b. (iii) CPU c. (ii) Solve math problems
d. (i) Central Processing Unit e. (iv) Keyboard
2. a. data b. Monitor c. soft
d. nano e. CPU
3. a. A computer is a smart machine that helps us with all kinds of tasks. Monitor, keyboard are the two parts of a computer.
b. Monitor displays pictures, words and everything you can see on the screen.
c. CPU stands for Central Processing Unit. CPU process data by performing calculations and tasks, making everything work on a computer.
d. Three main stages of computer operations are Input, Processing and Output.
e. ALU - Arithmetic Logical Unit performs all arithmetic operations and logical operations.
CU - Controls all the operations.
MU - Memory Unit stores the data temporarily or permanently.
4. a. True b. False c. True d. False e. False

Activity Time

1. a. Keyboard is used by Rohan to write a story.
b. Printer is used to get a picture on paper.
c. Monitor helps him to watch video.
d. Mouse moves and performs various things.

3.

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

Chapter - 2 — Hardware and Software

Beginning Drill



Headphone

Scanner

Printer

Pen drive

Mouse

Exercise

- (iv) Monitor
 - (i) Input device
 - (iii) Linux
 - (ii) Editing documents
 - (iii) Operating System
- Input
 - Microsoft word
 - software
 - Operating System
 - pen drive

3. a.

Hardware

- Hardware refers to the physical components of a computer system that we can touch and see.
- Example– CPU, Monitor, keyboard, etc.

Software

- Software is a set of instructions that carry out a particular type of task on a computer system.
- Example– Windows, Mac OS, Linux, etc.

- Input Device**– Input devices are hardware components that allow you to enter data or instructions into a computer. They are helpful to insert text, pictures into the computer.

Examples : keyboard, mouse, scanner, microphone, etc.

Mock Time


- Icons are small pictures or symbols that you see on computer screen.
- Taskbar

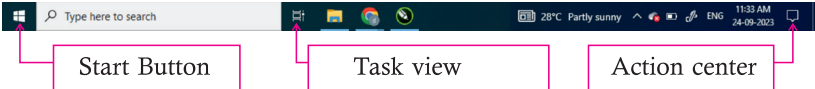
Exercise

- Operating system
 - Virtual assistant
 - Task view
 - Wallpaper
 - I Beam
- Operating System
 - Recycle bin
 - Taskbar
 - Left panel
 - notifications
- Microsoft Windows is a popular operating system used on most computers. On Windows you can run multiple programs at the same time, manage files easily and use a wide range of software.
 - Desktop is the main screen area you see when you start and log into your computer. It is the place where you see pictures, icons, start buttons, mouse pointer, etc.
 - The Primary function of the task view is to allow you to see and manage open applications and virtual desktops.
 - Taskbar is the longest horizontal bar that can be seen at the bottom of the desktop. It contains start button, quick launch bar, task view, action center and shows desktop button.
 - Action center is notification center on our computer where important messages and settings are kept. It displays system notifications such as emails and app updates.
- False
 - True
 - True
 - False
 - True

Lab Activity

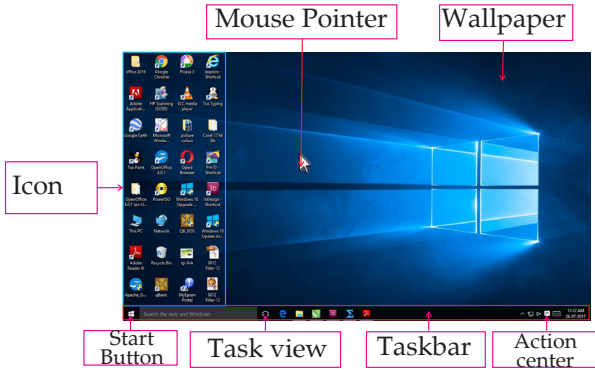
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- 

- 

Activity Time

1.

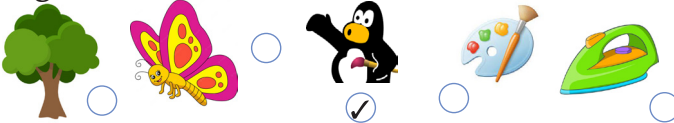


2.

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

Chapter - 4 — Tux Paint

Beginning Drill



Time 4 Fun

1. Shapes tool

2. Smudge Effect tool

Mock Time

1. Magic tool

2. Drawing Canvas

Exercise

1. a. (ii) Typing text

b. (i) Paint tool

c. (iii) Smudge

d. (i) Text

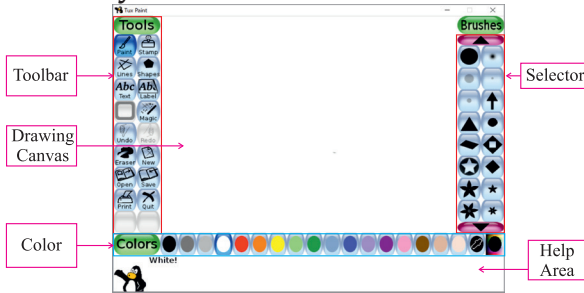
e. (i) Shapes

Pick Tool (TM)

2. a. Smudge b. Shapes c. Magic
d. 360° e. Edge
3. a. Tux Paint is a paint program used for drawings and colouring. The main parts of the Tux Paint window are Drawing Canvas, toolbox, colors, sub-toolbox, selector, help area.
b. Magic tool is used to draw and give amazing effects to a picture.
c. By following steps we can create drawings:
 1. Click on the shapes tool
 2. Choose any shape from the Shapes.
 3. Select colour from the Colors tool and draw the shapes.
- d. Magic tool draws and give special effect to the drawing.
e. Text tool is used to type text by different fonts and styles.
f. Label tool is used to type the text in different fonts and styles.
4. a. False b. False c. False d. True e. False

Lab Activity

1.



Chapter - 5 — Word 2019 - An Introduction

Beginning Drill

Do it yourself

Mock Time

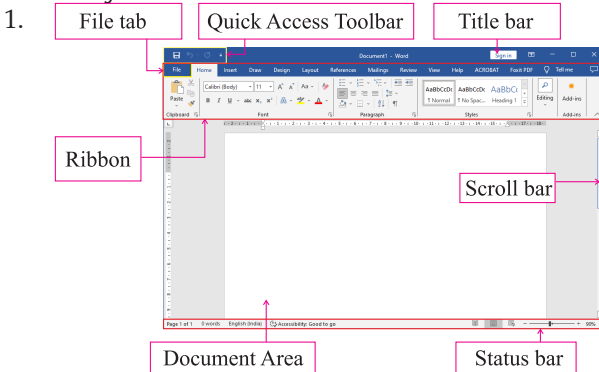
1. File tab 2. Double-click on the word.
3. Select the paragraph and press delete key.











Exercise

1. a. (iv) Typing and formatting text b. (iii) Both (i) and (ii)
c. (i) File tab d. (i) Ctrl+O e. (iv) File tab
2. a. word processing b. cursor c. Ctrl+A
d. Document area e. Open
3. a. MS Word is a software used for creating, editing and formatting text documents. The uses of MS Word are:

1. It helps you to write stories and short paragraphs.
 2. It is great for making posters with pictures and text.
- b. To select a paragraph we can follow any one step:
1. Click and Drag– Place the cursor at the beginning of the paragraph, click and hold the left mouse button, then drag to the end of the paragraph and release the button.
 2. Triple-Click– Click three times quickly within the paragraph. This selects the entire paragraph.
 3. Keyboard Shortcut– Place your cursor anywhere in the paragraph, then press Ctrl+shift+Down Arrow to select the paragraph from the current cursor position to the end.
- c. Ribbon is used to format text, insert objects and perform other actions.
- d. Deleting can be performed in three ways:
1. To delete a letter– Place the cursor to the left of the letter and press delete key.
 2. To delete a word– Firstly select the word and then press delete key.
 3. To delete a paragraph or a sentence– Select the paragraph or sentence and press delete key.
- e. We can open an already saved file by the steps:
1. Click on File tab.
 2. Click on Open option.
 3. Click on the Browse.
 4. Select your file.
 5. Click on the open button. Your document will be opened.
4. a. False b. False c. True d. False e. False

Activity Time



2.  +  = Exit from Word
-  +  = Select the entire document
-  +  = Print the document
-  +  = Create a new document
-  +  = Save a document

Chapter - 6 — MSW Logo

Beginning Drill



Mock Time

1. Backward command
2. Draws pictures and shapes on computer
3. True

Exercise

1. a. (ii) Create drawings b. (i) Logic Oriented Graphic Oriented
c. (iii) Both (i) and (ii) d. (i) Show Turtle e. (ii) Start
2. a. MSW Logo b. close c. display
d. clear Screen e. right
3. a. MSW LOGO (Logic Oriented Graphic Oriented) is a simple programming language that a computer understands.
b. Turtle is a triangle shape figure seen on the centre of the screen. It helps you to draw pictures and shapes on the computer.
c. Logo commands are called primitives. Primitives are English words or instructions which you give to a computer program to make it do certain things.
d. Forward command moves the turtle forward by a specified number of steps.

Command: FD<Number of Steps>

Backward Command moves the turtle backward by the given number of steps. The turtle moves in the opposite direction of its face.


Command: BK <Number of Steps>


- e. Home Command moves the turtle back to its starting position, often at the centre of the screen. The turtle arrows a line behind the screen.

Command: Home

4. a. **Turtle** is a triangle shape figure seen on the centre of the screen.
- b. **HT (Hide Turtle)** command hides the turtle from screen.
- c. **Home** command moves the turtle back to its starting position, often at the center of the screen.
- d. **Bye** command closes or brings you out of the Logo.

Activity Time

1. a. 

```
RT 45 ↵
FD 150 ↵
RT 90 ↵
FD 150 ↵
HOME ↵
```
- b. 

```
FD 150 ↵
RT 90 ↵
FD 250 ↵
RT 90 ↵
FD 150 ↵
HOME ↵
```

Teacher's Point

Primitives of Logo are:

1. Movement commands:
 - a. FD (Forward) – Moving the turtle forward.
 - b. BK (Back) – Moving the turtle backward.
 - c. RT (Right) – Moving the turtle right.
 - d. LT (Left) – Moving the turtle left.
2. Pen Commands
 - a. PD (Pen Down) – Lowers the pen to draw as the turtle moves.
 - b. PU (Pen up) – Raises the pen so the turtle moves without drawing.
3. Screen Commands
 - a. Home – moves the turtle back to the origin.
 - b. CS (Clear Screen) – Clears the drawing from the screen and moves the turtle to the home position.

Chapter - 7 — Introduction to Internet

Beginning Drill



Google Chrome



Email



Internet Explorer

Time 4 Fun

Hyper Text Transfer Protocol

Mock Time

1. Google chrome
2. Google

Exercise

1. a. (iii) Facebook b. (i) application software
c. (iv) Sending letters physically
d. (iv) World Wide Web e. (iii) Web browser
2. a. Internet b. Web browser c. Website
d. Web address e. Website
3. a. A network is like a way that computers and other devices talk to each other and share things like pictures, videos and messages. Two types of network are communication network and computer network.
b. Internet is a network of networks throughout the globe.
c. Uses of Internet are:
 1. It helps us to purchase online items.
 2. It allows us to watch fun and educational videos.
 3. It helps us to learn new things for school and find information.
 4. It lets us to play games, like puzzles and coloring games.
d. Web browser is an application software. It is important because it gives us access to view the websites on the Internet.
e. Website is a collection of web pages, images, videos and multimedia files, which provide information in the form of a book. Examples– Google, Yahoo, Facebook, etc.
4. a. True b. False c. False d. True e. False
5. a. WWW– World Wide Web collects the information across the world and present it in the form of a website through the Internet.
b. Web page is a document written in HTML that you see online using a web browser.
c. Web browser is an application software that allows you to access and view Websites on the Internet.

Lab Activity

2.

Websites	Web Browser
Google	Google Chrome
Wikipedia	Opera
Bing	Mozilla firefox
Yahoo	Internet Explorer
Facebook	Microsoft Edge

3. 

Teacher's Point

1. Internet is a network of networks throughout the globe. Internet is used at various places like shopping complex, schools, banks, hospitals, home, etc.
2. Importance of Internet
 - a. Communication– It enables instant communication through email, social media, etc.
 - b. Entertainment– It has diverse forms of entertainment like games, social media content, etc.
 - c. Education– There are opportunities for online courses and studies.

Chapter - 8 — More on Artificial Intelligence

Beginning Drill

- a. Chatbots
- b. Voice Assistants

Time 4 Fun

1. INTELLIGENCE
2. NETFLIX
3. ROBOT
4. ALEXA

Mock Time

1. smart
2. Self-driving car

Exercise

1. a. (iv) All of these b. (iii) Both (i) and (ii)
c. (iii) Recommendation systems
2. a. Artificial Intelligence b. fiber c. Self-drive
3. a. Artificial Intelligence means giving a computer or a machine the ability to think and learn like a human.
Uses of AI are:
 1. AI makes computers understand your voice and answer questions.
 2. AI can predict things like a weather forecast.
 3. AI can make robots that help to clean our houses.
- b. Alexa is an AI agent whom which we can talk.
- c. AI helps the cars to drive themselves safely by recognizing road signs, avoiding obstacles and staying in correct lane.
- d. Recommendation systems like Netflix, Spotify, Youtube uses AI

to suggest movies and shows on streaming platforms, books to read, or products to buy based on what you have liked before.

4. a. True b. False c. False d. True e. True

Activity Time

- A robot named Echo was designed to perform routine maintenance.
 - Echo witnessed a woman struggling with her broken-down car.
 - So, Echo went for the help of the woman and repaired the car.
 - The woman was very happy. Echo then began to seek out to help others.
 - This robot become a cherished friend in the city bringing happiness for everyone.
- ROBOT b. EMAIL FILTERS c. ARTIFICIAL INTELLIGENCE
 - CHATBOTS e. VOICE ASSISTANTS

Teacher's Point

- AI helps create talking toys and robots.
- AI can help to learn and practice maths.
- AI makes computer understand your voice and answer questions.
- AI can make robots that helps to clean our household work.
- AI can play games too.
- AI can predict things like a weather forecast.

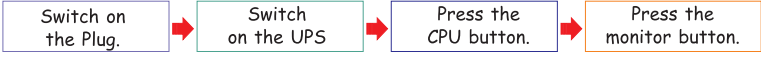
Fun with Coding

1. b. 8 2. b. Friday 3. b. 7 4. d. 10 5. b. Insect

WORKSHEET-1

- Monitor b. Operating System c. dripping
 - taskbar e. 360°
- (iv) Monitor b. (ii) Solve math problems
 - (iii) Linux d. (i) Shapes e. (iii) Smudge
- True b. False c. False d. True e. False
- ALU – Arithmetic Logical Unit performs all arithmetic operations and logical operations.
CU – Controls all the operations.
MU – Memory Unit stores the data temporarily or permanently.
 - Input devices are hardware components that allow you to enter data or instruction to the computer. They are helpful to insert text, pictures into the computer. Examples– keyboard, mouse, scanner, microphone, etc.











Output device is a hardware used to display information.
Examples– Monitor, speakers, printer, etc.

- c. Taskbar is the longest horizontal bar that can be seen at the bottom of the desktop. It contains Start button, quick launch bar, task view, action center and shows desktop button.
 - d. Text tool is used to type text by different fonts and styles.
 - e. Desktop is the main screen area you see when you start and log in your computer. It is the place where you see pictures, icons, start buttons, mouse pointer, etc.
- 5.
- 
- 6.
- a. Printer will help her get a picture on paper.
 - b. Mouse is the small device.

WORKSHEET-2

- 1. a. right b. Artificial Intelligence c. Word Processing
d. Web address e. Self-driving
 - 2. a. (i) Show Turtle b. (i) Ctrl+0 c. (ii) Start
d. (iv) Sending letter physically e. (iv) Recommendation systems
 - 3. a. F b. F c. F d. T e. T
 - 4. a. MS Word is a software used for creating, editing and formatting text documents. The uses of MS Word are:
 - 1. It helps you to write stories and short paragraphs.
 - 2. It is great for making posters with pictures and text.
 - b. Web browser is an application software. It is important because it gives us access to view the websites on the Internet.
 - c. Forward command moves the turtle forward by a specified number of steps.
Command: FD <number of steps>
Backward Command moves the turtle backward by the number of steps. The turtle moves in the opposite direction of its face.
Command: BK <number of steps>
 - d. Self driving car is a vehicle that can drive itself without needing a human driver to control it. AI helps the cars to drive themselves safely by recognizing road signs, avoiding obstacles and staying in correct lane.
 - e. Magic tool draws and give special effect to the drawing.
5. a. World Wide Web collects the information across the globe and presents it in the form of a website through the Internet.

- b. Turtle is a triangle shape figure seen on the center of the screen. It helps you to draw pictures and shapes on the computer.
- c. Bye command closes or bring you out of the Logo.
- d. Web page is a document written in HTML that you see online using a web browser.

6.  +  =
-  +  =
-  +  =
-  +  =
-  +  =

National Cyber Olympiad

- 1. — (d)
- 2. — (d)
- 3. — (c)
- 4. — (c)
- 5. — (b)
- 6. — (a)
- 7. — (d)
- 8. — (a)
- 9. — (c)
- 10. — (d)
- 11. — (c)
- 12. — (a)
- 13. — (d)
- 14. — (b)
- 15. — (c)

PICK TOOL - 4

Chapter - 1 — A Smart Machine

Beginning Drill



Keyboard



Mouse



Scanner

Mock Time

1. Random Access Memory
2. 1 Tera Byte (1TB)

Exercise

1. a. (ii) Output devices b. (iii) Keyboard c. (ii) 1024 Bytes
d. (i) Random Access Memory e. (iv) RAM
2. a. Hardware b. Output c. Speakers
d. Volatile e. Blue-Ray Disk
3. a. Random Access Memory
b. Read Only Memory
c. Compact Disk
d. Digital Versatile Disk
4. a. Hardware is the physical components of a computer. The parts which we can touch, see. Examples– Monitor, keyboard, CPU, etc. Software is the set of instructions or rules that tell the hardware what to do. Examples– MS Word, MS Paint, etc.
b. Input devices are hardware components that allows you to enter data, commands and other information into the computer. Examples are keybaord, mouse, microphone, scanner, etc.
c. A printer produces hard copies of digital documents on paper. One of the printer called Dot Matrix Printer is a type of impact printer that prints using a fixed number of pins or wires and typically use a print head that moves back and forth or in an up and down motion on the page and prints by impact, striking an Ink - soaked cloth ribbon against the paper.
d. Primary storage devices are also known as the main memory of a computer. These are short-term memory. They hold data that the computer is currently using or processing. When the computer is turned off, the data in these devices is lost.
Secondary Memory is responsible for storing data permanently. These are long-term memory. They store the data even when the computer is turned-off.

e. ROM — (Read Only Memory) is a non-volatile memory that stores data permanently. The information in ROM is not lost when the computer is powered off. The data stored in ROM is not easily modified. ROM is of three EPROM, PROM, EEPROM.

4. a. False b. True c. False d. True

Activity Time



Lab Activity



2. 256 GB
3. USB port is found either on the side or back of the computer. It can connect to keyboard, mouse, printer, scanner, etc.

Chapter - 2 — Window 10

Beginning Drill

1. Switch on main power supply.
2. Switch on the UPS button.
3. Press the CPU button.
4. Press the monitor button.

Time 4 Fun

1. CORTANA 2. FILE EXPLORER

Exercise

1. a. (ii) Operating System b. (ii) Cortana c. (iii) Recycle Bin
d. (ii) More than two files
2. a. File Explorer b. file c. Wallpaper
d. name e. Recycle Bin
3. a. Windows 10 is a versatile and user-friendly operating system

2. a. MSW Logo b. Control buttons c. Primitives
d. right e. Repeat
3. a. Forward command b. Hide Turtle command
c. Show Turtle command d. Pen Erase command
e. Backward command f. Clear Screen command
g. Pendown command h. Pen Up command
4. a. MSW Logo is a simple programming language that lets you create your own computer programs by giving it special instructions.
b. Control buttons refer to interactive elements or icons that allow users to manipulate the behaviour of a program. These buttons provide a way for users to initiate specific action or commands.
c. Pen UP command lifts the pen of the turtle from the screen so that the turtle moves without drawing.
Pen down command lowers the pen so that a line is drawn when the turtle moves.
d. The purpose of PR (Print) command is used to display text or the value of an expression on the screen.
e. Repeat command is used to repeat a sequence of Logo commands a specified number of times. It allows to create loops, where a certain set of instructions is performed repeatedly. This command is used in order to avoid repetition.
5. a. True b. False c. False d. True e. True

Lab Activity

2. a. 1 b. Hello_MSW Logo! c. 6 d. 97

	Command		Output
a.	PRINT SUBTRACT	255 170	85
b.	PRINT MULTIPLY	18 6	108
c.	PRINT DIVIDE	126 12	10.5
d.	PRINT SUM	120 75	195

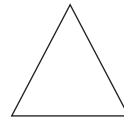
Activity Time

(a) Repeat 4 [FD 100 RT 90]



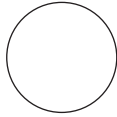
Square

Repeat 2 [FD 100 RT 120]



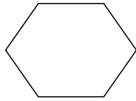
equilateral triangle

(b) Repeat 180 [FD 1 RT 1]



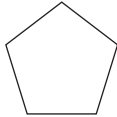
A circular path

(c) Repeat 6 [FD 70 RT 60]



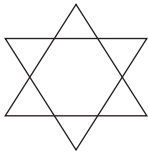
Hexagon shape

(d) Repeat 5 [FD 60 RT 72]



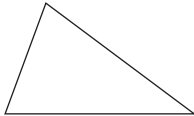
Regular Pentagon Shape

(e) Repeat 5 [FD 100 RT 144
FD 100 LT 72]



Star Shape

(f) Repeat 3 [FD 50 RT 120]



equilateral triangle

Teacher's Point

1. Basic LOGO commands are:

- FORWARD– moves the turtle forward by a specified number of steps.
- LEFT– Turns the turtles left by a specified number of steps.
- REPEAT – Executes a block of commands a specified number of steps.

Chapter - 4 — Introduction to Scratch

Beginning Drill

Programming languages are tools used to write instructions for computers to perform specific tasks. Each language has unique features and uses. For example Python, Java, C++, Ruby, etc are some of the languages.

Time 4 Fun

1. (a) Cat
2. Green flag

Exercise

1. a. (iv) Cat b. (iv) None of these c. (i) Motion
2. a. free-to-use b. sprite c. sprite list
3. a. Scratch is a free-to-use programming language. It is used to make interactive stories, animations, games and interactive sports. Scratch uses blocks instead of typing codes.
b. Green flag– It starts the execution of a scratch project. We can run our program by checking on the green flag at the top of the screen.
Red Stop– It is shaped like an octagon. It stops all the execution of a scratch project.
c. Script is the set of instructions that is used to program in scratch. It is a collection of blocks that all interlock with one another. The block perform a specific task. They are programmed to make the sprites do things.
Script Area is where you assemble your code by connecting the coding blocks. You drag Blocks from the Blocks Palette and snap them together like pieces of a puzzle to create sequence of actions.
4. a. True b. False c. True

Teacher’s Point

Scratch is a free-to-use programming language. It is used to make our one interactive stories, animations, games and interactive projects. Scratch uses blocks instead of typing out code. In scratch our work with sprites and backdrops.

Chapter - 5 — More Features of Word 2019

Beginning Drill

- a. Create and Edit documents
- b. Insert Images and Media
- c. Use Styles and Formatting
- d. Generate Tables and Lists

Mock Time

1. Tripple-click
2. Word

Exercise

- (i) One time b. (iii) Ctrl+Y c. (i) Alignment
 - (iii) Spelling errors e. (i) Ctrl+J
- cancel b. Copy c. unordered d. Fonts
- Ctrl+Shift+L b. Ctrl+V
 - Ctrl+C d. Ctrl+X
- The main components are:

Title Bar: It displays name of your document, minimize button, maximize button, close button and Quick Access toolbar.

File Tab: File tab allows you to create new documents, save, print, share, export, etc. It also helps you to check backstage view.

- The cut command is used to remove selected text or content from its current location and temporarily store it in the clipboard.

The copy command is used to duplicate the selected text or content without removing it from its original location.

- The characters of a specific design and size used for typing text are called fonts. The two kinds of font are Time New Roman and Arial.
- Alignment of text to the margin is called alignment. There are four types of alignment left, center, right and justified alignment.
- The steps to check spellings and grammar are:

Step1 : Click on the Review tab.

Step2 : Click on spelling and Grammar option from the Proofing group. A proofing dialog box appears left of the word window.

Step3 : Click on the required word from the list.

- True b. False c. False d. False

Activity Time

- | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Z | X | Z | W | F | O | N | T | S | Q | W |
| H | Q | Y | K | O | K | H | Q | X | Y | Z |
| M | S | W | O | R | D | X | K | H | K | B |
| A | K | B | H | M | B | W | Z | Y | L | U |
| L | Y | X | Q | A | H | Y | Q | W | X | L |
| I | E | D | I | T | I | N | G | K | Z | L |
| G | Q | B | W | T | W | Q | B | H | Q | E |
| N | W | Z | B | I | K | Y | Z | Y | Y | T |
| M | K | B | H | N | U | M | B | E | R | S |
| E | Z | Y | Q | G | K | Y | R | Q | E | W |
| N | K | W | X | K | Y | Q | W | K | D | H |
| T | X | H | Y | Z | Q | U | N | D | O | X |

2. Bulleted list

- Hindi
- English
- Maths
- Science
- Arts
- Social Study
- Environmental Studies
- Moral Science
- General Knowledge and Rhymes

Numbered list

1. Hindi
2. English
3. Maths
4. Science
5. Arts
6. Social Study
7. Environmental Studies
8. Moral Science
9. General Knowledge and Rhymes

Teacher's Point

1. Ribbon is a toolbar that organizes commands and features into a set of tabs, each with its own group of related tools.

File Tab is located on the Ribbon's leftmost side, the File tab opens the Backstage View.

Quick Access Toolbar– This is a customizable toolbar that sits above or below the Ribbon, providing quick access to frequently used commands, like save, undo and Redo.

Status Bars– These allow users to navigate through the document or application window vertically and horizontally.

Chapter - 6 — Introduction to PowerPoint 2019

Time 4 Fun

1. SLIDE
2. RIBBON

Exercise

1. a. (ii) Presentation b. (ii) Slide Pane c. (i) F5
d. (iii) Slides e. (ii) Ctrl+N
2. a. PowerPoint b. Presentation c. Slide Pane
d. Placeholder e. View buttons
3. a. PowerPoint is a software application developed by Microsoft. It allows you to create dynamic and visually appealing presentations. It is a part of Microsoft Office Suite.
b. Presentation is a display of information with graphics, text, sound, movies, etc.
c. Slide is the individual page or screen that contain information such as text, images, graphics or multimedia elements. Slide pane is the main area where you create and edit slides.
d. We can add WordArt by following steps:
Step1 : Click on Insert tab.

analyze data, make decisions and perform actions autonomously with minimal human intervention.

b. Advantages of AI are:

1. AI can automate repetitive tasks, freeing up humans for more creative and complex work.
2. AI-powered tools and devices can assist people with disabilities, making technology more inclusive.

Disadvantages of AI are:

1. Ethical concerns arise over AI decisions, bias, discrimination and potential misuse.
2. AI lacks human creativity and struggles with emotional understanding.

c.

Narrow AI	General AI
1. It is known as weak AI.	1. It is known as strong AI.
2. It is designed for specific task.	2. It is like the super-smart AI you see in science fiction movies.
3. These AI systems are excellent at one thing but cannot do much else. Siri and Alexa are considered Narrow AI.	3. It can understand, learn adapt to various tasks just like a human.

4. a. False b. True c. False d. False e. True

Fun with Coding

1. b. Q 2. b. Boy, girl 3. c. 376 4. b. Tuesday

WORKSHEET-1

1. a. Volatile b. file c. repeat
d. main e. sprites pane
2. a. (ii) Halt b. (i) Motion c. (ii) 1024 Bytes
d. (iii) Recycle Bin e. (i) Random Access Memory
3. a. True b. True c. True d. False e. False
4. a. The purpose of PR (Print) command is used to display text or the value of an expression on the screen.
b. File is the place on which data is saved on the disk. It is a digital container that stores data or content. Steps to create a file are:
Step1 : Open MS word
Step2 : Type anything whatever you want.

Step3 : Click on file tab.

Step4 : Click on save option or press Ctrl+S key.

Step5 : Click on the browse.

Step6 : Give a name to the file and select the disk wherever you want to save.

Step7 : Click on 'save'. Your file gets created.

- c. ROM (Read Only Memory) is a non-volatile memory that stores data permanently. The information in ROM is not lost when the computer is powered off. The data stored in ROM is not easily modified. ROM is of three types EPROM, PROM, EEPROM.
- d. Script is the set of instructions that is used to program in scratch. It is a collection of blocks that all interlock with one another. The block perform a specific task. They are programmed to make the sprites do things.

Script Area is where you assemble your code by connecting the coding blocks. You drag from the Blocks Palette and snap them together like pieces of a puzzle to create sequence of actions.

e.

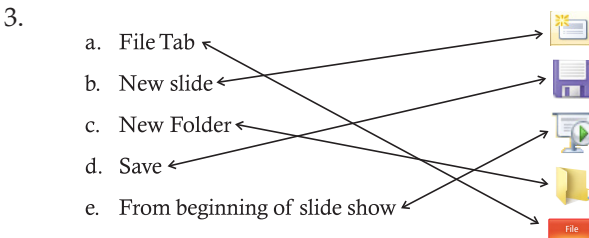
Primary Storage devices	Secondary Storage devices
1. They are known as main memory of a computer.	1. They are responsible for storing data permanently.
2. These are short-term memory.	2. These are long-term memory.
3. They hold data that the computer is currently using or processing.	3. They store the data even when the computer is turned off.
4. When the computer is turned off, the data in these devices is lost.	4. They are not the main memory but still store data permanently.

- 5. 1. Folder - When one or more related files are Stored in a storage area it is called a folder.
- 2. Cortana - It is a virtual assistant that responds to voice commands and helps users to find information Set reminders and perform various tasks
- 3. Input - Devices Input devices are hardware components that allows you to enter data, commands and other information into the computer
- 4. Memory - Memory in the context of computers and information technology, refers to the electronic storage and retrieval of data and instructions that a computer uses to Perform tasks and functions

5. Repeat-Command Repeat command is used to repeat a sequence of Logo commands a specified number of times. It allows you to create loops where a certain set of instructions or actions is performed repeatedly.
6. a. Forward command b. Pen Erase command
 c. Hide Turtle command d. Pen UP command
 e. Backward command

WORKSHEET-2

1. a. Unordered b. Place holder c. reload
 d. Microsoft Edge e. Virtual Assistants
2. a. (i) F5 b. (i) One time c. (iii) Opera
 d. (ii) Recognizing emotions e. (i) Ctrl+J



4. a. False b. False c. False d. Treu e. False
5. a. Alignment of text to the margin is called alignment. There are four types of alignment left right, center and justified alignment.
 b. We can add Word Art by following steps:
 Step1 : Click on Insert tab.
 Step2 : Click on Word Art from the text group.
 Step3 : Click on you desired style. Word Art text box appears on the slide screen.
 Step4 : Type the text. The text in 'Your Text Here' is replaced with you text.
- c.

Narrow AI	General AI
<p>1. It is known as weak AI.</p> <p>2. It is designed for specific task.</p>	<p>1. It is known as strong AI.</p> <p>2. It is like the super-smart AI you see in Science fiction movies.</p>

3. These AI systems are excellent at one thing but cannot do much else. | 3. It can understand, learn, adapt to various tasks just like a human.
- d. A web browser is a software application that allows you to access and view information on the world wide web. Examples are Google Chrome, Microsoft Edge, Internet Explorer, etc.
- e. Advantages of AI are:
1. AI can automate repetitive tasks, freeing up humans for more creative and complex work.
 2. AI powered tools and devices can assist people with disabilities, making technology more inclusive.

Disadvantages of AI are:

1. Ethical concerns arise over AI decisions, bias, discrimination and potential misuse.
 2. AI lacks human creativity and struggles with emotional understanding.
6. 1. Font - The characters of a specific design and size used for typing text are called fonts.
2. Presentation - A presentation is a display of information with graphics text. Sound, movies etc. It can be delivered verbally using spoken words or visually using slides images and other multimedia elements
3. Hyperlink - It is simply a link which provides a reference to data that the reader can directly follow or that is followed automatically whenever the website page contains hyperlink or text or Picture.
4. Slide - A slide is the individual page or screen that contain information such as text images, graphics or multimedia elements
5. URL - Uniform Resource Locator (URL) is a specific character string that constitutes a reference to an Internet resource. It is a unique address for a file that is accessible on Internet.

National Cyber Olympiad

- | | | | | |
|-----------|-----------|-----------|-----------|-----------|
| 1. — (d) | 2. — (a) | 3. — (a) | 4. — (b) | 5. — (d) |
| 6. — (a) | 7. — (d) | 8. — (d) | 9. — (a) | 10. — (a) |
| 11. — (a) | 12. — (b) | 13. — (a) | 14. — (c) | |

PICK TOOL - 5

Chapter - 1 — History of Computer

Beginning Drill



Laptop



Desktop Computer



Tablet

Time 4 Fun

1. ABACUS
2. TRANSISTORS

Exercise

1. a. (iii) Abacus b. (i) 1617 c. (ii) 1950-1960
d. (iii) Vacuum tubes e. (ii) Super computers
2. a. Pascaline b. ENIAC c. Transistors
d. COBOL e. Microcomputer
3. a. ENIAC — Electronic Numerical Integrator and Computer is the world's first general purpose digital computer. It solves computing problem.
b. MARK I — It was the first automatic digital computer used for numeric calculations. It can perform three calculations in a single second.
c. UNIVAC — Universal Automatic Computer was the first commercially produced computer designed for rapid calculations of extensive numeric data and data transfer. It can manage both numeric and textual information.
4. a. The Abacus emerged as the initial calculating device. Constructed on a wooden frame with rods and beads, it facilitate basic arithmetic operations like addition and subtraction.
b.

ENIAC	EDVAC
1. Electronic Numerical Integrator and Computer	1. Electronic discrete Variable Automatic Computer
2. It was designed by John Mauchly and J. Presper Eckert	2. It was also designed by J. Presper Eckert and John Mauchly

3. It was a general purpose electronic digital computer, capable to solve computing problem	3. It was a program storing machine.
---	--------------------------------------

c. In 1671, German mathematician Gottfried' Leibniz created an enhanced version of the adding machine known as Leibniz's calculator. It handled addition, multiplication , division.

d.

The first generation of computer	The second generation of computer
1. It was developed in 1940's.	1. It was developed in 1950's.
2. They used vacuum tubes for processing and magnetic drums for memory	2. They used transistors making computers smaller, more reliable and more efficient.
3. Machine and assembly language was used.	3. Magnetic core memory was used.
4. Examples— ENIAC, UNIVAC	4. Example— 1 B7 700, UNIVAC. Languages used were COBOL, Basic, etc.

e. Super Computer are the most powerful and fastest computer. They are used for complex calculations and perform tasks requiring enormous computational capabilities. These computer are used for weather forecasting, scientific research, simluations and computations that involve large datasets. Examples— PARAM and ANURAG.

5. a. False b. False c. True d. True e. True

Activity Time

1.



Name: ENIAC

Year: 1945



Name: Pascaline

Year: 1642



Name: Leibniz Calculator

Year: 1671

Lab Activity

1.

Vacuum Tubes

Transistors

Integrated Circuits

Micro Processors

Artificial Intelligence

Chapter - 2 — More on Window 10

Beginning Drill

1. Adobe Acrobat
2. Recycle Bin
3. Google Chrome
4. Microsoft Edge

Mock Time

1. (A) Operating system
2. True

Exercise

1. a. (i) Live Tiles b. (ii) Universal Apps c. (iii) Win+Tab keys
d. (iv) Four e. (i) Control Panel
 2. a. Cortana b. real-time c. Microsoft Edge
d. Control Panel e. Continuum
 3. a. The features of Windows 10 are:
 1. It prioritizes security with Windows Defender Antivirus and it adapts its inferace with continuum based on the device.
 2. It enhances gaming experience.
 3. It is versatile, secure and user-friendly.
 4. A familiar start menu, the virtual assistant Cortana and a new web browser called Microsoft Edge.
 - b. Task View allows you to view and manage your open applications and windows. You can access Task View by clicking the Task View button on the taskbar or by pressing Shortcut key Win+Tab.
 - c. Line Tiles are dynamic and have interactive icons on the Start Menu. The tiles are like mini-apps that display real-time information, such as news updates, weather forecasts or app notifications.
 - d. Universal Apps are special programs that are designed to work not just on your computer but also on other windows devices like tablets and even smartphones. If you are working on your computer or playing a game on your tablet, these apps are there to make your digital experience consistent and smooth.
 - e. The steps to change the window color are:
 1. Right-click anywhere on the Desktop and select Personalize option.
 2. From the setting dialog box, click on colors option.
 3. Select your desired colour.

The colour of your window will change.
4. a. True b. True c. False d. False e. False

Activity Time

1. 1. Background– The desktop wallpaper changes to a new picture or design.

Coordination refers to the numerical values that determine the position of a sprite on the stage. The stage acts as a canvas where sprites can be placed, and the coordinates help specify exactly where on that canvas a sprite should appear.

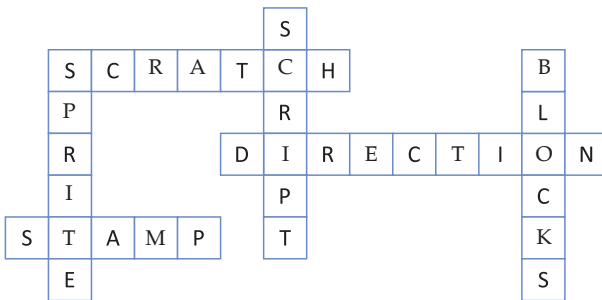
- b. A sprite is a graphical character that performs various actions within a project.

We can add a new sprite by following four ways:

1. Choose new sprite from library
 2. Point new sprite
 3. Upload sprite from file
 4. New Sprite from camera is created on the stage.
- c. Motion Blocks are coloured blue and used to control the movement and positioning of sprites on the stage. They help the sprites to move, turn, glide or go to a particular location. Some common Motion Blocks are:
1. Point in direction 90°– points a sprite in a specific direction, measured in degrees.
 2. If on edge, bounce – This block prevents sprites from moving off the stage.
 3. Change X by 10 – It changes the horizontal position of a sprite by a certain value.
 4. Change Y by 10 – It changes the vertical position of a sprite by a certain value.
- d. Script Area is where you assemble code by connecting coding blocks. It is the space where you drag and drop blocks from the Blocks Palette to create sequence of actions for sprites.

4. a. False b. False c. True d. True e. True

Activity Time



Teacher's Point

1. It is a interactive platform where you create your own animations,

stories and games. It creates colourful programs. It does not need any coding.

Chapter - 4 — Features and Tables in Word 2019

Beginning Drill

- a. Generate Tables and Lists
- b. Apply Style and Formatting
- c. Insert Images and Graphics
- d. Create and Edit documents

Mock Time









1. 5
2. Ctrl+Y

Exercise

1.
 - a. (i) Capital letters
 - b. (iii) the top margin
 - c. (ii) Cell
 - d. (ii) Shift + tab
 - e. (i) Combining two or more cells
2.
 - a. small
 - b. Sentence
 - c. row, column
 - d. systematic
 - e. Splitting
3.
 - a. Word Art– It is a decorative and stylized text that you can add to a document.
 - b. Merging cells in a table means combining two or more adjacent cells into a single cell.
 - c. Splitting cell in a table means dividing a single cell into multiple smaller cells.
4.
 - a. We can change by following steps:
Step 1: Select the text
Step 2: Click on the change case from Font group.
Step 3: Select the lowercase from the list. Your text gets changed.
 - b. Page Border are used to decorate your word documents.
 - c. Header and Footer is a text or graphics, printed at the top or bottom of every page in a document. They provide a consistent space for information that you want to appear on every page.
 - d. A table is a grid of cells arranged in rows and columns. It is a container that holds information. Row depict horizontal data and column depict vertical data. To add row in a table follow same steps:
Step1 : Click inside a row above or below where you want to insert a new row.
Step2 : Click on Layout tab.
Step3 : Click on the Insert Above or Insert Below from Rows and Columns group. An empty row gets inserted in a table.
 - e. To merge cells follow the steps:

- c. Outline Pane – It is found on left side, it shows a text-based outline of the presentation's slides, displaying slide titles and main text content for quick navigation and editing.
- 4.
- a. Powerpoint is a popular presentation software that was released as part of the Microsoft office 2019 suite. Powerpoint designed to help you create dynamic and visually appealing presentations for various purposes, including business meetings, educational lectures and more.
 - b. Presentation is the practice of showing and explaining the content of a topic to an audience. It displays information with graphics, text, sound, movies, etc.
 - c. Views refer to different ways of looking at and editing your presentation. Each view serves a specific purpose.
 - d. Slide Layout is predefined arrangement of placeholders for content, such as text, images and multimedia elements on a slide.
 - e. Comments is a textual annotation or note that you can add to specific slides or objects within a slide. To add comments follow the steps:
 - Step1 : Click a location on the slide where you want to add your comment.
 - Step2 : Click on the Review> New comments option in the comments group.
 - Step3 : Type your message in the box under the comments pane and press Enter key.
 - Step4 : Close the comment task pane after finishing.
5. a. True b. False c. False d. True e. False

Activity Time

			
Blank	Content with caption	Title Slide	Comparison
			
Two content	Title only	Picture with caption	Title and content

Lab Activity

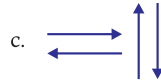
2. a. Title and content
- b. Title slide
- c. Two content

Chapter - 6 — Algorithm and Flowchart

Beginning Drill

1. Wet the bristles of the toothbrush with water.
2. Apply toothpaste
3. Start brushing
4. Brush at every teeth
5. Brush for two minutes
6. Rinse your mouth
7. Clean your toothbrush

Mock Time



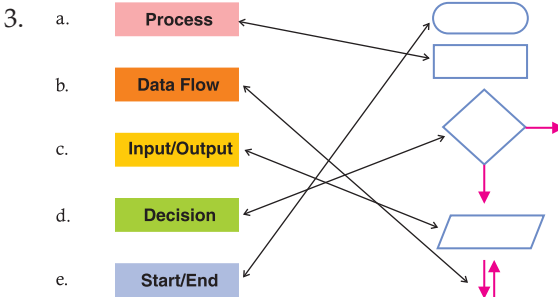
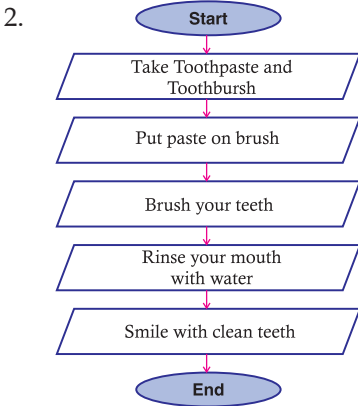
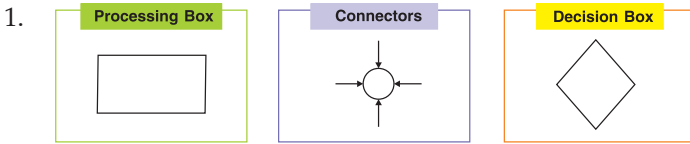
Exercise

1. a. (ii) A step-by-step procedure or formula for solving a problem
 - b. (i) Flowchart c. (iii) Process
 - d. (iii) Top to bottom e. (iii) Diamond
2. a. Algorithm b. Symbols c. Input/output
 - d. Terminator e. Arrow
3. a. Algorithm is a step-by-step set of instruction designed to perform a specific task or solve a particular problem. It is important as it solves many problems like mathematical problems, instructions cooking related problems and many more.
 - b. Flowcharts are valuable tools in problem-solving. They help break down complex task into manageable steps, making it easier to find errors or inefficiencies.
 - c. Rules for creating a flowchart are:
 1. The flowchart should proceed from top to bottom.
 2. All boxes of flowchart should be connected with Arrow.
 3. There should be one entry point at the top and one exit point at the bottom of the flowchart.
 4. The decision symbol should have two exit points.
 5. All the steps should be arranged in a sequence.
 - d. It represents a step or action in the process.
It contains a description of the action.

e. Diamond symbol represents decision. It is used to check condition that can be answered in Yes/No or True/False.

4. a. True b. True c. False d. False e. False

Activity Time



Teacher's Point

1. Algorithm is a step-by-step procedure or formula for solving a problem. It includes many characteristics like:

- a. Finiteness b. Definiteness c. Input
d. Output e. Effectiveness

Flowchart is a visual representation of a process by using various symbols to illustrate the flow of control. Its components are:

- a. Start/End b. Process c. Decision
d. Input/Output e. Arrow

Chapter - 7 — Internet Services

Beginning Drill

- a. Google b. URL c. HTML

Time 4 Fun

- a. Internet Protocol b. File Transfer Protocol
c. Virtual Private Network

Exercise

- (ii) Internet b. (iii) Internet Service Provider
 - (i) Safari d. (iii) Both of these e. (i) E-mail
- Internet b. Modem c. username
 - inbox e. Hyperlink
- Internet stands for International network. It is a global network that connects millions of computers and electronic devices worldwide.
 - The Internet, originated from ARPANET (Advanced Research Projects Agency Network) in the 1960's. Developed by the U.S. department of Defense, ARPANET aimed to create a resilient communication system. In the 1970's TCP, IP provided a standardized language for diverse networks to communicate. This laid the foundation for the modern Internet architecture.
 - Email, short for Electronic mail is a method of exchanging digital messages using electronic devices such as computers, tablets and smartphones. Advantages of E-mail are:
 - It keeps a record of what you have done.
 - It is available 24/7.
 - It lets you send pictures and documents.
 - It helps people to send and receive messages very quickly.
 - The components of Email Window are:
 - Compose**– Create and write new emails. It has many parts:
 - Sender and Recipient–Sender is the one who sends message and recipient who receives and reads the message.
 - Subject line – It is used to write a short phrase or content about the message.
 - Body– main message is written over here.
 - Attachments– It includes files such as documents, images or videos.
 - CC and BCC – It allows you to send copies of the email to additional recipients.

- b. Limited Theory– It has the ability to learn from historical data to some extent. They can make decisions based on a combination of pre-existing rules and learned experiences for example– Self driving cars.

Reactive Machines– They are designed to perform a specific task without the ability to learn from experience. They follow pre-defined rules and respond to specific inputs with predetermined outputs. For example– Chess playing games.

- c. AI applications in education include personalized learning platforms, automated grading systems and intelligent tutoring systems that adapt to individual student needs.

4. a. True b. False c. True d. False

Activity Time

1. a. Artificial Intelligence b. Narrow AI c. Super AI
 d. Limited Theory e. Virtual Assistant

2.



Autonomous Vehicle



Education



Manufacturing



Game



Office



Healthcare

Fun with Coding

1. d. 3 2. b. DAIPMYLO
 3. c. Two days after tomorrow
 4. d. There are more red balls than blue balls
 5. a. 8

Teacher's Point

1. AI makes our life easier by automation, personalization, decision-making, smart assistants and improved accessibility.
- a. Automation– It can handle repetitive tasks quickly and accurately.
 - b. Personalization– It analyzed data to tailor recommendations and experiences.
 - c. Decision Making– It analyzes large amount of data to provide insights and predictions.

- d. Smart Assistants– Siri, Alexa, etc help manage daily tasks through voice commands.
- e. Improved Accessibility– AI technologies like speech recognition and text-to-speech assist individuals with disabilities.

WORKSHEET-1

1. a. COBOL b. Microsoft Edge c. Continuum
d. degrees e. splitting
2. a. (ii) 1950-1960 b. (iii) Abacus c. (iv) Four
d. (iii) x and y e. (ii) Shift+Tab
3. a. F b. T c. T d. F e. F
4. a. ENIAC– Electronic Numerical Integrator And Computer. It was designed by John Mauchly and J. Presper Eckert. It was a general purpose electronic digital computer, capable to solve computing problem.
EDVAC– Electronic Discrete Variable Automatic Computer. It was also designed by John Mauchly and J. Presper Eckert. It was a program storing machine.
- b. Live Tiles are dynamic and have interactive icons on the Start Menu. These tiles are like Mini-apps that display real– time information such as news updates, weather forecasts or app notification.
- c. A sprite is a graphical character that performs various actions within a project. We can add a new sprite by following four ways:
 1. Chose new sprite from library.
 2. Paint new sprite.
 3. Upload sprite from file.
 4. New Sprite from camera is created on the stage.
- d. Motion Blocks are coloured blue and used to control the movement and positioning of sprites on the stage. They help the sprites to move, turn, glide or go to a particular location. Some common Motion Blocks are:
 1. Point in direction 90° – points a sprite in a specific direction, measured in degrees.
 2. If an edge, bounce– This block prevents sprites from moving off the stage.
 3. Change X by 10 – Changes horizontal position of a sprite by a certain value.
 4. Change Y by 10 – Changes the vertical position of a sprite by a certain value.

- e. To merge cells follow the steps:
 Step1 : Select the cell you want to combine.
 Step2 : Click on Layout tab.
 Step3 : Click on Merge cell option from the Merge group. Your selected cells will be merged into a single cell.
5. a. **Mark I**– First automatic digital computer used for numeric calculations. It can perform three calculations in a single second.
 b. **Universal Apps**– They are special programs that are designed to work not just on your computer but also on other window devices like tablets, smartphones, etc.
 c. **Header and Footer**– It is a text or graphics, printed at the top or bottom of every page in a document.
 d. **UNIVAC**– Universal Automatic Computer was the first commercially produced computer designed for rapid calculations of extensive numeric data and data transfer.
 e. **Script Area**– Where you assemble code by connecting coding blocks. It is a space where you drag and drop blocks from the Block Palette to create sequence of actions for sprites.
6. a. — (ii) b. — (v) c. — (iv) d. — (iii) e. — (i)

WORKSHEET-2

1. a. Normal b. Algorithm c. Symbols
 d. Inbox e. Narrow AI
2. a. (i) F5 b. (iii) Process c. (iii) Diamond
 d. (iii) Both of these e. (i) Strong AI
3. a. T b. F c. T d. T e. F
4. a. Views refer to different ways of looking at and editing your presentation. Each view serves a specific purpose.
 b. The rules for creating a flowchart are:
 1. The flowchart should proceed from top to bottom.
 2. All boxes of flowchart should be connected with Arrows.
 3. There should be one entry point at the top and one exit point at the bottom of the flowchart.
 4. The decision symbol should have two exit points.
 5. All the steps should be arranged in a sequence.
 c. Email– Electronic mail is a method of exchanging digital messages using electronic devices such as computers, tablets and smartphones. Advantages of E-mail are:
 1. It keeps a record of what have you done.

2. It is available 24/7.

3. It lets you send pictures and documents.

4. It helps people to send and receive messages very quickly.

d. **Limited Theory**– It has the ability to learn from historical data to some extent. They can make decisions based on a combination of pre-existing rules and learned experiences for example– Self-driving cars.

Reactive Machines– They are designed to perform a specific task without the ability to learn from experience. They follow pre-defined rules and respond to specific inputs with predetermined outputs. Example– Chess playing games.

e. AI applications in education include personalized learning platforms, automated grading systems and intelligent tutoring systems that adapt to individual student needs.

5. a. **Notes Pane**– Located below the Slide pane, it allows you to add speaker notes for each slide.

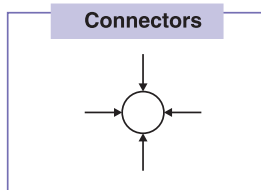
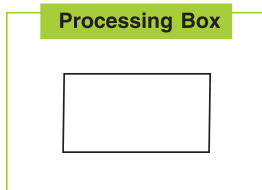
b. **Slide Pane**– Central area where you design and view the content of the current slide. You can add text, images and other elements.

c. **Decision box**– It represents diamond symbol and used to check condition that can be answered in Yes/No or True/False.

d. **Processing box**– It represents a step or action in the process. It contains description of the action.

e. **Narrow AI** – It is also called weak AI designed to do a specific task really well, like recognizing faces in photos or playing chess. Example are Siri or recommendation systems.

6.



National Cyber Olympiad

1. — (b)

2. — (b)

3. — (a)

4. — (d)

5. — (d)

6. — (d)

7. — (a)

8. — (b)

9. — (d)

10. — (c)

11. — (b)

12. — (b)

13. — (d)



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