TECHNO
CLONE

(Teacher Mnaual)

Class 1 to 5

Techno Clone - 1

Chapter - 1 — Computer-A Machine

Warm Up

1. Machine is a man-made thing.
2. Computer, fan, bus, calculator.
3. Yes, computer is a machine.

Exercise

A. 1. (b) man-made things.　　2. (c) Both (a) and (b)
　　3. (a) Television　4. (c) Machines make our work difficult.

B. 1. fuel　　2. man-made　3. desktop　　4. tablet

C. 1. F　　2. T　　3. F　　4. T

D.1. Computer makes our work easier. It helps us to do different tasks.
2. Doll, book, television, bag, etc. are man-made things.
3. Machines make our work easy and faster. They also save our time.
4. Desktop computer, laptop and tablet are types of computer.

E. A. F　　B. E　　C. B　　D. E　　E. B　　F. F

Activity Zone

A. Green — Flower, Dog　　　　Blue — Watch, bag, pen, car
B. (a) Refrigerator　(b) Aeroplane　(c) Desktop computer
C. Do it yourself

Project Work

T	E	L	E	V	I	S	I	O	N
A	E	R	O	P	L	A	N	E	Y
M	F	T	O	A	S	T	E	R	E
I	A	C	B	O	A	T	O	M	V
X	N	A	M	O	B	I	L	E	Z
E	Q	R	B	I	C	Y	C	L	E
R	C	A	M	E	R	A	V	W	C

Television, Aeroplane, Mixer, Fan, Car, Toaster, Boat, Mobile, Bicycle, Camera

Chapter - 2

Warm Up

1. Eyes, nose, mouth, ears, etc.
2. Monitor, mouse, keyboard, CPU, etc.

Activity Zone

M	O	U	S	E		

C	P	U

M	O	N	I	T	O	R

K	E	Y	B	O	A	R	D

C	O	M	P	U	T	E	R

Exercise

A. 1. (a) Monitor 2. (c) all of these 3. (a) Central Processing Uuit
   4. (c) CPU   5. (c) Keyboard
B. 1. four   2. Mouse   3. Keys   4. CPU   5. Speakers
C. 1. T   2. F   3. T   4. F   5. T
D. 1. CPU   2. MONITOR   3. MOUSE
   4. SPEAKERS   5. KEYBOARD
E. 1. Monitor 2. CPU   3. Keyboard   4. Mouse
F.1. Monitor, Mouse, Keyboard and CPU are the main parts of a computer.
2. CPU is the most important part of a computer.
3. Keyboard is used to type in numbers and letters to the computer.
4. Printer, speakers and scanner are the additional parts of a computer.
5. Printer is used to take a printout on a paper.

Activity Zone

A. Do it yourself
B. 1, 3

Project Work

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

Keyboard, Scanner, Mouse, Monitor, Printer, Headphone, Speakers, CPU.

Chapter - 3

Warm Up
1. Yes, I have seen a computer in my school library.
2. It is used in a library, bank, hospitals, schools, home, etc.
3. In a shopping mall, office and at a railway station.

Exercise
A. 1. (c) both a and b   2. (a) sums
   3. (a) games   4. (a) greeting card   5. (b) office
B. 1. music   2. greeting   3. messages   4. video   5. sums
C. 1. T   2. F   3. F   4. F   5. T
D. 1. (b) Listen to Music   2. (a) Typing Letters
   3. (d) Playing Games   4. (e) Drawing Pictures
   5. (f) Watching Movies   6. (c) Solving Sums
E.1. Computers are used at homes, schools, banks and libraries.
2. We can solve sums on a computer and can design a greeting card on it.

Activity Zone

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

Project Work : Do it yourself

Chapter - 4

Warm Up
1. Yes, we obey rules in school.
2. Yes, we obey rules while crossing the road.
3. Yes, we follow rules using a computer.

Exercise
A. 1. (a) electricity   2. (a) CPU   3. (a) Keyboard
   4. (c) You should always sit too close to the monitor.
B. 1. rules   2. slot   3. monitor   4. straight
C. 1. T   2. F   3. T   4. T

D.1. We should follow some rules to make the computer safe.
2. We should use headphones so that we do not disturb others.
3. A computer is very sensitive as it stops working if we do not clean it.
4. It can cause a injury if a correct posture is not maintained while using a computer.

Activity Zone
1. ✓   2. ✗   3. ✗   4. ✓   5.   ✗ 6. ✗

Project Work : Do it yourself

Chapter - 5

Warm Up
1. Yes, I have seen it.   2. Yes, I have seen it.
3. Real mouse is a living one and a computer mouse is a non-living one.

Exercise
A. 1. (b) small   2. (c) both a and b   3. (b) double click   4. (a) left click
B. 1. two   2. wire   3. move   4. pointer
C. 1. T   2. F   3. T   4. F
D. 1. (d) Change the location of an object.
   2. (a) Click the left button once.
   3. (b) Click the right button once.
   4. (c) Click the left button twice.
E. 1. There are two buttons in a mouse.
2. A mouse helps us to draw pictures, play games, point and select any item on the monitor.
3. The mouse pointer is the arrow used to point at the monitor.
4. Pressing the left mouse button once is called left click.
5. Pressing the mouse button twice is called double click.

Activity Zone
A. 1. M O U S E
   2. K E Y B O A R D
   3. M O N I T O R

B.

					4.	P		
1.	M					R		
	O	3.	C	L	I	C	K	
	U					N		
2.	S	E	L	E	C	T		
	E					E		
			5.	D	R	A	W	
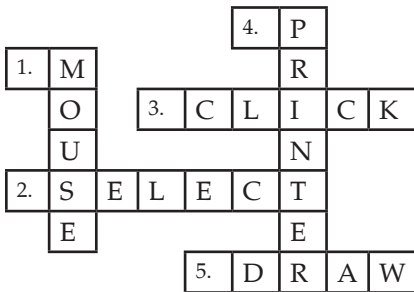
Project Work

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

Chapter - 6

Warm Up
1. We use a pen or pencil to write a notebook.
2. No, we do not use the same things to write on a computer.
3. We use keyboard to write on a computer.

Activity

^ 6	@ 2	(9

Exercise
A. 1. (c) keyboard   2. (b) keys   3. (a) alphabet keys
    4. (b) enter key   5. (a) delete key
B. 1. typing   2. number   3. spacebar   4. arrow   5. caps lock
C. 1. F   2. F   3. T   4. F   5. F
D. 1. (b) to type numbers   2. (e) longest key
    3. (d) 26 keys   4. (c) to erase
    5. (a) type capital letters when caps lock is off
E. 1. Alphabet keys, number keys, special keys, function keys are some of the keys on the keyboard.
    2. Alphabet keys are used to type alphabet.
    3. Number keys are used to type numbers.
    4. Special keys are used to do special functions.
    5. Function keys are used to perform different functions.

Activity Zone
A. 1. Enter key   2. Spacebar key   3. Arrow key
    4. Alphabet key   5. Caps lock key
B. 1. c   2. b   3. d   4. a
C. 1. a   2. a   3. b   4. a

Project Work

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

Chapter - 7

Warm Up
1. Open the door
2. Open the lock
3. Switch it on

Activity
1. Switch ON the main power button.
2. Press ON/Restart button on the CPU.
3. Switch ON the monitor

Exercise
A. 1. (a) ⊞
   2. (c) Switch ON the main power.
   3. (b) Uninterrupted Power Supply
   4. (a) Click on Shut Down
B. 1. electricity   2. turn off   3. shutdown
C. 1. F   2. F   3. F   4. F
D. Step 1. Turn on the Power Switch.
   Step 2. Switch ON the UPS.
   Step 3. Switch ON the CPU.
   Step 4. Switch ON the monitor.
   Step 5. Welcome screen appears.
E. 1. Step 1. Turn on the power switch.
      Step 2. Switch ON the UPS.
      Step 3. Switch ON the CPU.
      Step 4. Switch ON the monitor.

2. We have to shut down the system properly so that computer functions properly.
3. Steps are as follows:

    Step 1. Click on start button.

    Step 2. Now click on shut down button.

    Step 3. When the screen becomes blank, switch OFF the power button on the monitor.

    Step 4. Switch OFF the UPS.

    Step 5. Switch OFF the main power button.
4. It is a process that starts when you switch ON the CPU and run till you see the desktop on computer.

Activity Zone
A. 1. b   2. a   3. d   4. c
B. 2. ✓   3. ✓

Project Work
1. S T A R T   B U T T O N
2. S H U T   D O W N
3. M O N I T O R
4. U P S
5. M A I N   P O W E R

Chapter - 8

Warm Up
1. Yes, I like to draw pictures.
2. We use pencil, colours, an eraser, etc. to draw on paper.
3. No, we do not use the same things to draw pictures on a computer.
4. We need various tools of MS-PAINT to draw on a computer.

Exercise
A. 1. (a)   2. (b)   3. (a)   4. (b)
B. 1. Drawing   2. Pencil   3. Paint   4. New   5. Save
C. 1. T   2. F   3. T   4. T   5. F
D. 1. MS-PAINT is a program that lets you paint on the computer.
    2. Steps are as follows:

    Step 1. Click on the start menu.

    Step 2. Click on Window Accessories.

Step 3. Then select Paint from the option.
            The Paint home screen will appear.
3. Pencil tool, Eraser tool, Brush tool, Fill with color tool and line tool are some of the tools in MS-Paint.

Activity Zone : Do it yourself

Model Test Paper-1

A. 1. (a) Monitor   2. (c) both a and b   3. (b) electricity
B. 1. Desktop   2. Mouse   3. Mistake   4. Rules
C. 1. F   2. T   3. F   4. T
D. 1. Schools, hospitals, banks, office, etc. are some places where computer are used.
    2. Features of computer are:
       (a) A computer never makes any mistake.
       (b) A computer makes our work easy and fast.
    3. Monitor, Mouse, Keyboard, CPU are the main parts of a computer.
    4. A computer is very sensitive as it stops working if we do not clean it.

Model Test Paper-2

A. 1. (c) both a and b   2. (a) alphabet keys
    3. (c) Switch ON the main power   4. (a) Lines
B. 1. Wire   2. Spacebar   3. Electricity   4. Drawing
C. 1. F   2. F   3. F   4. F
D. 1. Mouse is used to draw pictures and play games.
    2. Special keys are used to do special function.
    3. Function keys are used to perform different functions.
    4. MS-Paint is a program that lets you paint on the computer.

NATIONAL CYBER OLYMPAID (Sample Paper)

Logical Reasoning
    1. (b) 13, 21, 29, 45   2. (c) Wednesday   3. (d) 50
    4. (b) 74   5. (c) fifty eight

Computers and Information Technology
    1. (d) TV   2. (d) CPU Box
    3. (c) many things   4. (c) Monitor
    5. (b) Mouse

Techno Clone - 2

Chapter - 1

Warm Up

1. Machine is a device that helps us to do our work easily and quickly.
2. We use machine because it helps to do various things.
3. Yes, computer is also a machine.
4. Computer needs electricity to run.

Exercise

A. 1. (b) electricity   2. (a) fast
    3. (c) A computer has feelings and emotions
    4. (b) Desktop Computer   5. (b) Textbook

B. 1. Electricity 2. Memory 3. Desktop 4. Palmtop 5. Positive

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

D. 1. (a) Desktop computer   2. (d) Laptop
    3. (c) Tablet computer   4. (b) Smartphone

E.1. A machine is a device that helps us to do our work easily and quickly.

2.

Computer	Human Being
a. A computer works very fast.	a. A human being cannot work very fast like computer.
b. A computer cannot think.	b. A human being can think.

3. Two advatages of computer are:
   (a) Speed - A computer performs functions very fast and calculate million of sums in seconds.
   (b) Diligence - A computer can work for long hours without getting tired.

4. Two disadvantages of computer are:
   (a) Health Risks - If we do not use computer properly, it can result in injuries or disorders of hands, eyes, neck, etc.
   (b) Impact on Environment - The e-waste releases, dangerous toxic materials which are harmful for the environment.

5. Different types of computer are desktop computer, laptop computer, tablet computer, smart phone.

Activity Zone

A. Works with very fast speed
   Needs Instruction
   Internet
   Accuracy in work   B. Do it yourself.

Project Work

2.

Advantages	Disadvantages
a. A computer can work for long hours without getting tired.	a. Many people use computer in a negative way. They play games and do chat that is a waste of time.
b. A computer never makes mistakes.	b. Some people use computer for negative activities like hacking, stealing data from computer.

Chapter - 2

Warm Up
1. Yes   2. Yes   3. Yes   4. Yes   5. No

Activity
1. Railway station   2. School   3. Hospital   4. Bank

Exercise
A. 1. (c) both a and b   2. (c) all of these
   3. (c) railway station   4. (a) design homes and buildings
   5. (c) Calculator
B. 1. MS Word 2. MS Paint   3. Internet 4. Employees 5. Patients
C. 1. T   2. F   3. T   4. F   5. T
D. 1. Bank   2. School   3. Shop
E. 1. Hospital, school, office are the places where computers are used.
   2. To deposit or withdraw money.
   3. To book and cancel tickets.
   4. To make bills.
   5. To tell people when trains will arrive or depart.

Activity Zone

S	C	H	O	O	L
H	O	O	F	A	O
O	B	S	F	I	S
M	A	P	I	R	H
E	N	I	C	P	O
M	K	T	E	O	P
V	B	A	N	R	R
W	S	L	Q	T	V

Project Work
    1. SCHOOL   2. HOME   3. OFFICE   4. BANK

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

    1. AIRPORT 2. HOME   3. SCHOOL 4. BANK   5. HOSPITAL

Chapter - 3

Warm Up
    1. Making Juice

       P   O   I

    2. Making a dress

       P   O   I

Activity
    I   O   O   I   O

Exercise
A. 1. (a) keyboard   2. (c) both (a) and (b)   3. (c) keyboard
      4. (b) compact disc   5. (a) Mouse
B. 1. input   2. 104   3. Mouse 4. Microphone 5. Monitor
C. 1. T   2. T   3. F   4. T   5. T
D. 1. (c) Monitor   2.(d) Printer   3. (a) Pendrive 4. (b) Scanner
E.1. Device that help us to provide data and instructions to the computer are called input devices. Example- keyboard, mouse, scanner, etc.
2. Parts of the computer that give us the final output after processing are called output devices. Example- monitor, speakers, printers, etc.
3. The devices that store data and instructions before processing and output after processing are called storage devices. Examples- CD/ DVD, pendrive, memory card, etc.
4. Pendrive is a small sized storage device with huge capacity to store data and information.
5. Memory card is a small chip type storage device.

Activity Zone
    (a) Keyboard ✓   (b) Mouse ✓   (c) Scanner ✓
    (d) Printer ✓   (e) Pendrive ✓
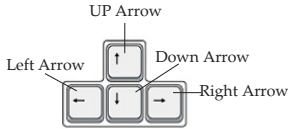
Project Work

1. Input   2. Output   3. Mouse   4. Joystick
5. Printer   6. Process

Chapter - 4

**Warm Up :** Do it yourself

Activity

Exercise

A. 1. (b) 104   2. (a) 2   3. (b) Right Arrow   4. (b) Ctrl   5. (b) Esc

B. 1. Alphabet 2. Number   3. Caps lock 4. Shift   5. Delete

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

D. 1. (d) Shift key 2. (a) Ctrl key   3. (b) Esc key

4. (e) Backspace key   5. Delete key

E.1. Keyboard is used to type in numbers and letters to the computer.
2. The Capslock key is used to type letters in capital letters.
3. Shift key is a special key that performs many functions.
4. These keys are used in games as they allow the player to move in any direction.
5. The backspace key is used to erase the text to the left of the cursor.

Activity Zone : Do it yourself

Chapter - 5

Warm up
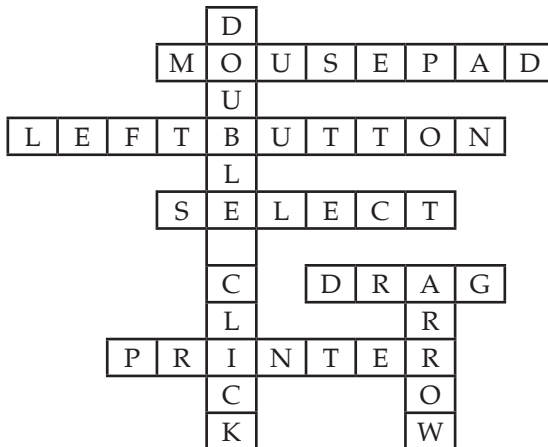
Exercise

A. 1. (c) both a and b   2. (b) optical mouse
    3. (b) Touch pad mouse   4. (b) clicking   5. (b) Double-click
B. 1. pointing   2. optical   3. three   4. left-click
C. 1. T   2. F   3. T   4. T
D. 1. (d) To open the menu options.   2. (e) To select an item.
    3. (b) A mouse without wire.   4. (a) Found on a laptop.
    5. (c) Works like a scroll wheel.
E. 1. Mouse is used to point and select items on the monitor.
2. Optical mouse, wireless mouse, trackball mouse, touch pad mouse, etc.
3. Wireless mouse is a mouse without wire.
4. Pressing the buttons is called clicking.
5. Double-click is used to open a file or documents.

Activity Zone

1. | M | O | U | S | E |

2. | C | L | I | C | K | I | N | G |

3. | D | R | A | G | G | I | N | G |

4. | M | O | U | S | E | | P | O | I | N | T | E | R |

5. | D | O | U | B | L | E | | C | L | I | C | K |

B. 1. Optical mouse   2. Wireless mouse   3. Touchpad mouse

Project Work

		4.	P		
1.	M		O		
	O	3.	C L I	C	K
	U		N		
2.	S E L E C T				
	E		E		
		5.	D R A G		
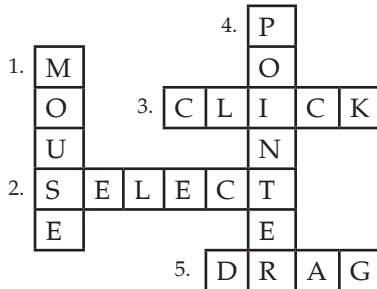
Chapter - 6

Warm Up : Do it yourself

Activity Zone

1. RECTANGLE
2. POLYGON
3. OVAL
4. CURVE

Exercise

A. 1. (a) Rounded rectange tool   2. (b) Polygon tool
    3. (a) Text tool   4. (a) To enlarge the view of a picture
    5. (b) Cut and paste

B. 1. shapes   2. size   3. magnify   4. rotate   5. crop

C. 1. F   2. T   3. T   4. T

D. 1. Ms-Paint help you to draw and colour on the computer.
2.   The tools are line, curve, oval, ractangle, rounded rectangle and polygon.
3.   The steps are: (a) Click on Home tab.
     (b) Click on curve.
     (c) Click on the size box and select the width of the line.
     (d) Now drag the mouse to make a line.
     (e) Now click anywhere on the blank area to make a ⌐ curve.
4.   Magnifying a picture helps to see image in a large format.
5.   The steps are: (a) Click on the Home tab.
     (b) Click on select from image group.
     (c) Click on cut from clipboard group. The image will disappear.
     (d) Click on paste from clipboard group. Your image will be pasted.
         Now select it and drag it to the place where you want to place it.

Warm Up

A.   Menu, tabs, Title Bar, Minimize Button, Maximize Button, Close
     Button, Drawing Tools, Groups, Color Palette

B.   Do it yourself

Chapter - 7

Warm Up

Black board	Water bottle	Paper	Table
✓	✗	✓	✗

Exercise

A. 1. (c) Both a and b   2. (b) Title Bar   3. (a) each word
    4. (b) Ctrl + B   5. (b) Ctrl + X

B. 1. Control   2. Ribbon   3. WordPad 4. Enter   5. Ctrl + N

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

D. 1. It is a computer program which is used to type, save and format text.

2. The steps are: a.   Click on Start button.
    b. Now click Windows Accessories.
    c. In the expanded new menu, click on WordPad.

3. The steps are:
    a. On the Home tab in the font group, click on the arrow next to font.
    b. The drop down menu will display a list of all available fonts.
    c. Select the font of your choice.

4. The steps are: a. Click on the File button.
    b. Click on the Save option.
    c. A Save As dialog box will appear.
    d. Type the name of your document in file name box.
    e. Click on Save button, your document will be saved.

5. The steps are: a.   Click on the File button.
    b. Click on the Exit option

Activity Zone

1. Ctrl + B   2. Ctrl + I   3. Ctrl + U   4. Ctrl + X

5. Ctrl + C   6. Ctrl + V

Project Work : Do it yourself

Chapter - 8

Warm Up

1. Yes   2. Yes   3. Yes   4. Yes

Exercise

A. 1. (a) New   2. (a) Paint   3. (b) Shapes   4. (b) Eraser

B. 1. 17   2. Thumbnail   3. Mascot   4. Left toolbar
    5. Drawing Canvas

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

D. 1. Tux Paint has a simple, easy to use interface. It also has sound effects.

2. It is designed and developed by Bill Kendrick of New Breed Software.

3. The steps are: a.   Click the Start button.
    b. Select All programs.
    c. Click Tux Paint in the list.
    d. Click Tux to open it in the full screen mode or Tux paint windowed to open it in a small window.

4. To open a file in the TuxPaint follow the given steps:
    a. Select the open option from the tools toolbar.
    b. Select the drawing which is to be opened.

Activity Zone : Do it yourself   **Project Work :** Do it yourself

Model Test Paper-1

A. 1. (b) electricity   2. (c) all of these

     3. (b) keyboard   4. (b) ESC

B. 1. electronic   2. MS-Paint   3. 104   4. Caps lock

C. 1. T   2. F   3. T   4. F

D. 1. a. A computer can work for long hours without getting tired.

       b. A computer never makes mistakes

       c. A computer can store large amount of information.

2. Schools, hospitals, banks are some of the places where computers are used.

3. Devices that help us to provide data and instructions to the computer are called input devices.

    Example- Keyboard, mouse, scanner.

4. Backspace key is used to erase the text to the left of the cursor.

Model Test Paper-2

A. 1. (c) Both   2. (b) Polygon tool

     3. (b) Title Bar   4. (b) Eraser

B. 1. Pointing   2. Magnify   3. Ctrl + N   4. 17

C. 1. F   2. T   3. T   4. F

D. 1. Double-click is used to open a file of document.

2. It helps you to draw and colour on the computer.

3. The steps are :

     a. Click on the Home tab.

     b. Click on select from Image group.

     c. Select the image by dragging the mouse.

     d. To copy the image, click on Copy from clipboard group.

     e. Click on paste from clipboard group to paste the image.

4. Tux paint is simple and easy to use interface. It also has sound effects.

National Cyber Olympiad
(Sample Paper)

Logical Reasoning

    1. (c) Blue, Red   2. (b)   3. (a) 2

Computer and Information Technology

    1. (d) Booting   2. (c)

    3. (b) then clicking on the 'Shut down'

    4. (C) CPU

Techno Clone - 3

Chapter - 1

Warm up
1. Monitor   2. CPU   3. Speakers

Activity 1
1. Monitor   2. Printer   3. Keyboard   4. Mouse   5. UPS

Activity 2
A. 1. Mouse   2. Keyboard   3. Joystick
    4. Touchpad   5. Scanner   6. Webcam

Exercise
A. 1. (c) MS-Windows   2. (c) Joystick
    3. (b) Printer   4. (c) MS-Windows
B. 1. Hardware   2. Input   3. Printer   4. Joystick
C. 1. F   2. T   3. T   4. T
D. 1. (e) MS-Windows   2. (b) MS-Paint
    3. (c) CD   4. (a) Printer   5. (d) Keyboard

E.1. Hardware refers to the parts of the computer which we can see and touch.
   Example- Printer, Scanner, Mouse, Keyboard, etc.
2. Software refers to the programs. It helps in the functioning of a computer. We cannot see and touch software.
   There are two types of software system software and application software.
3. Input devices are the devices through which we enter data and instructions. Output devices are the ones which display the information and result.
   Example of input devices - Keyboard, Mouse, etc.
   Example of output devices - Printer, Monitor, etc.
4. System Software - It refers to the files and programs that make up your computer's operating system. Example - MS-DOS, MS-Windows, Linux, etc.
   Application Software- It is the software which enables you to perform some specific tasks on the computer like typing letters, drawing pictures, watching movies, etc.
   Example - MS-Office, MS-Paint, etc.

Activity Zone

A.

System Software	Application Software
Windows, Linux	Microsoft Word, Microsoft Excel, Microsoft Paint, Winzip, Clean up, Car racing

B. 1. Software   2. Operating System   3. Windows
   4. Application
C. 1. Computer   2. Microphone 3. Output   4. Scanner
   5. Trackball   6. Speaker   7. Keyboard 5. Joystick

Project Work : Do it yourself

Chapter - 2

Warm Up
1. Windows   2. Windows logo key + M
3. Minimize, Maximum, Close are the main components

Activity
Recycle Bin, Start Button, Taskbar, Notification Area, This PC

Exercise
A. 1. (b) Microsoft   2. (c) Both a and b
   3. (a) Right   4. (a) Screen saver   5. (a) Desktop
B. 1. Windows   2. Icons   3. Desktop   4. GUI
   5. Notification
C. 1. F   2. F   3. T   4. T   5. T
D.1. Windows manages all the functions of a computer and makes it run.
2. The first screen that appears on the screen is known as Desktop
3. The three main sections of taskbar are Start button, Quick launch icon and the Notification area.
4. The right side of the taskbar is called Notification area.
5. We can change the screen saver by following same steps:
   a. Right-click on the blank area of the desktop.
   b. From the shortcut menu, click on the personalize option.
   c. A new window will open, click on the screen saver option.
   d. Go to the screen saver option for selecting the desired screen saver and click on drop down arrow.
   e. A preview will be displayed.
6. Steps to shut down the computer:
   a. Click on the start button.
   b. Now select shut down option.
   c. Computer will be shut down.

Activity Zone
A. 1. Microsoft   2. Desktop   3. Icons

B.

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

Project Work : Do it yourself

Chapter - 3

Warm Up
1. MS-Word   2. Two   3. We click on start button

Activity
1. Ribbon   2. Slider Zoom   3. Title Bar   4. File Tab   5. Minimize

Exercise
A. 1. (c) Document   2. (a) Notebook
    3. (c) Ctrl+S   4. (c) Ctrl+End   5. (c) Home
B. 1. (b) move to the beginning of the line
    2. (a) move to the top of the document
    3. (d) move to the end of the document
    4. (c) to save   5. (e) for new document
C. 1. Wordpad   2. File Tab   3. Title bar   4. Ctrl+S   5. Minimize
D. 1. T   2. T   3. F   4. F   5. F
E.1. Creating documents on computer is called word processing.
2.   The steps are: a.   Click on Start button.
      b. Now click All apps.
      c. In the new menu, click on Microsoft Word 2016. MS-word will
          open.
3.   It is present on the title bar and has commands that are used
      frequently.

(20) — Techno Clone

4. The steps are:
   a. Click on the file tab. The back-stage view will appear.
   b. Click on new option.
   c. Click on blank document under available templates.
   d. Click on create button. New Blank document will appear on screen.
5. The steps are: a. Click on file tab.
   b. Click on the Save As option.
   c. Select the location where you want your document to be saved in the computer.
   d. Type the name of the document in file name box.
   e. Click on save. Your document is saved.

Activity Zone

Across
   1. TITLE BAR   6. CURSOR

Down
   2. WORK AREA   3. RIBBON   5. SCROLL

Project Work : Do it yourself

Chapter - 4

Warm up

   1. Cat
   2. Sprite is an object which performs functions controlled by scripts.
   3. The Stage

Activity : Do it yourself

Exercise

A. 1. (b) program 2. (b) project   3. (c) Title bar 4. (b) Green flag
B. 1. Scratch   2. Block palette   3. Stop
   4. Sprite   5. Title bar
C. 1. T   2. T   3. F   4. T   5. T

D. 1. (a) A way to run the script   2. (c) Stops all the scripts
   3. (e) Moves sprite 10 steps backward
   4. (b) Points sprite in the specified direction
   5. (d) Moves sprite 20 steps forward.
E. 1. A program is a sequence of instructions given to a computer.
   2. Scratch is an activity which you use to give instructions that the computer understand
   3. Motion Block controls the movement of sprites (up, down, left, right, rotation, etc.).

4. Motion Block controls the movement of sprites (up, down, left, right, rotation, etc.).
5. Pen Block allows the user to draw lines and objects on the stage.

Activity : Do it yourself   **Project Work :** Do it yourself

Chapter - 5

Warm up
1. Line tool   2. Save tool   3. Brick Effect

Exercise
A. 1. (a) Save tool   2. (b) Open tool   3. (a) Line tool
   4. (a) Paint tool   5. (a) Pattern tool
B. 1. Paint   2. Hazebrush   3. Thumbnail   4. Mirror
   5. ABC Text
C. 1. (e) ABC Text tool   2. (a) Pattern tool   3. (b) Rainbow tool
   4. (c) Open tool   5. (d) Magic tool
D. 1. Text Paint   2. Text tool   3. Mirror effect
   4. Stamp tool   5. HazeBrush tool
E. 1. Stamp tool   2. Magic tool   3. Hazebrush tool
   4. Line tool   5. Paint tool
F.1. a. Paint tool   b. Shape tool   c. Save tool
2. The images are saved in the form of thumbnail in TuxPaint.
3. The Sub Toolbox has options of Brush, Shapes and Special Effects.
4. Features are: a. It can be downloaded and used free of cost.
   b. One may even add a stamp once through the drawing.
   c. The images are saved directly as thumbnails.
5. Hazebrush tool is basically used to draw things that are far off.
6. Magic tool allows you to give amazing effects to the pictures.

Activity : Do it yourself   **Project Work :** Do it yourself

Chapter - 6

Warm up
1. World Wide Web
2. Internet helps to search information
3. Website

Exercise
A. 1. (a) Internet   2. (a) Water bottle
   3. (c) Online games   4. (a) Writer

B. 1. (d) Is the network of computers across the world.
   2. (b) Is the longest collection of information on internet.
   3. (a) lets you view different websites.
   4. (c) Is an electronic page of a website.
C. 1. Modem   2. Browser   3. Website   4. Network
D. 1. The full form of WWW is World Wide Web.
2. Internet is a network of the interlinked computer networking worldwide.
3. Website is a collection of related webpages that provide information.
4. It is a software application for accessing information on the world wide web. The website we open in a special software known as browser.

Activity Zone
A. Microsoft Edge   Mozilla Firefox   Google Chrome
B. Do it yourself   C. Do it yourself

Project Work : Do it yourself

Chapter - 7

Warm Up
1. George Mills   2. Language of Graphics Oriented

Activity
1. **Forward 40**
   Step 1: Type FORWARD   Step 2: Press the Spacebar
   Step 3: Type 40   Step 4: Press Enter
2. **Right 90**
   Step 1: RT90   Step 2: Press Enter key
3. **BACK 60**
   Step 1: BK60   Step 2: Press Enter Key
4. **Left 90**
   Step 1: LT90   Step 2: Press Enter Key

Exercise
A. 1. (b) Language of Graphics Oriented
   2. (a) MSW-LOGO   3. (c) Turtle   4. (a) Centre
   5. (c) Turtle
B. 1. (e) Turtle   2. (a) Language of Graphics Oriented
   3. (b) Graphic screen   4. (d) Top of the Turtle
   5. End of the Turtle
C. 1. LOGO   2. Debugging
   3. Forward, backward, left and right

D.1. It helps to find any mistake we might have made in giving commands to the MSW-LOGO.
2. It pauses MSW-LOGO temporarily and waits for the continue command.
3. It halts the MSW-LOGO from executing a command.
4. Once you have written the command in the input box, you click on EXECUTE button.
E. 1. Language of Graphics Oriented
2. Commands given in MSW LOGO are called Primitives.
3. MSW-LOGO is used to draw simple shapes, write and do calculations.
4. Input box is the area where the LOGO commands are typed.
    Command tools and controls are used to play, pause and reset the turtle.
5. The steps are:
    a. Click on start button.
    b. Click All apps and then Windows Accessories.
    c. Click on Microsoft Windows LOGO
    d. Now, Click on Microsoft Window LOGO option. MSW-LOGO screen appears.

Activity
Title Bar, Menu Bar, Main Screen, Commander Window, Scroll Bar, LOGO's turtle.

Project Work : Do it yourself

Chapter - 8

Warm Up
1. Language of Graphics Oriented
2. Backward   3. Forward

Exercise
A. 1. (c) Commands   2. (a) RT   3. (a) LEFT
    4. (b) FORWARD   5. (b) HOME
B. 1. FD   2. (a) CT   3. (b) CLEAN
    4. BYE   5. HT
C. 1. FD   2. Recall list box   3. Input box
    4. CT   5. RT
D.1. It makes the turtle come to its default position, that is, the centre of the screen.
2. It makes the turtle appear again giving the ST command.

3. It clears the whole graphic window without changing the position of the turtle.
4. It makes the turtle move backward by giving BK command to the turtle.
5. It rotates the head of the turtle to its right by giving RT command.

E.1. It clears the graphic screen and the turtle moves back to its HOME position.
2. This will make the turtle move just 60 steps in the direction of his head.
3. It makes the turtle come to its default position, that is, the centre of the screen.
4. ClearScreen command clears the graphic screen and the turtle moves back to Home position. Clear command clears the graphic window without changing the position of the turtle.
5. We can enter commands in the Input box.

Activity Zone

A.

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

B. Do it yourself

Project Work : Do it yourself

Model Test Paper-1

A. 1. (c) MS-Window   2. (a) Right
   3. (c) Ctrl + S   4. (c) Title bar

B. 1. Printer   2. Icons   3. Ctrl + S   4. Sprite

C. 1. T   2. F   3. T   4. F

D.1. Software refers to the programs. It helps in the functioning of a computer. We cannot see and touch software. There are two types of software Application and System Software.

2. We can change by following some steps:
   a. Right-click on the blank area of a desktop.
   b. From the shortcut menu, click on the personlize option.
   c. A new window will open, click on the screen saver option.
   d. Go to the screen saver option for selecting the desired screen saver and click on drop down arrow.
   e. A preview will be displayed.
3. Creating documents on computer is called word processing.
4. Motion Block, Sound Block, PEN Block, Control Block

Model Test Paper-2

A. 1. (a) Save tool 2. (a) Internet
   3. (c) Turtle 4. Home
B. 1. Point 2. LOGO 3. debugging 4. Input box
C. 1. (c) Turtle 2. (a) Language of Graphics Oriented
   3. (b) Graphic Screen 4. (d) Top of the Turtle
   5. (c) End of the turtle
D. 1. The sub toolbox has options of Brush, Shapes and Special Effects.
2. A website is a collection of related webpages that provide information.
3. It is the area where the LOGO commands are typed.
4. We enter the commands in Input box.

National Cyber Olympiad (Sample Paper)

Logical Reasoning
   1. (C) 2. (C) Resize
   3. (D) 4. (A) VDU
   5. (C) Drawing purposes

Computer and Information Technology
   6. (B)
   7. (B)

Techno Clone - 4

Chapter - 1

Warm up

1. Charles Babbage   2. Charles Babbage
3. On Abacus calculations are done quickly by moving the beads on the rack.

Activity 1

   (i) Abacus   (ii) Slide Rule   (iii) Tabulating Machine
   (iv) Napier Bones

Activity 2

   (i) Smart phone (ii) PDA   (iii) Tablet   (iv) Desktop Computer

Exercise

A. 1. (c) Napier Bones   2. (c) Charles Babbage
   3. (a) 1614   4. (c) Blaise Pascal   5. (c) Super-Computers
B. 1. Abacus   2. Charles Babage   3. Herman Hollerith
   4. Analog   5. Digital
C. 1. T   2. F   3. T   4. T   5. F
D. 1. Universal Automatic Computer
   2. Electronic Discrete Variable Automatic Calculator
   3. Atanasoff-Berry Computer
   4. Electronic Numerical Integrator And Calculator
   5. Personal Digital Assistant
E.1. Abacus was the first calculating device developed by the Chinese and Egyptians.
2. It is a calculating device to speed up the multiplication process. It is a very good calculating device which calculates very fast.
3. Analog computers are those computers in which data or number is represented in the form of continuously varying physical quantities such as pressure, temperature, voltage current, etc. Digital computers are the computers that solve problems by operating on discrete data representing variables by performing arithmetic and logical processes on data from a stored program.
4. Different types of digital computer are: Special and general purpose computer, embedded and Micro-computers.
5. Super computers are designed to be used for extremely complicated computations, that also in minimum possible time. They are the fastest, the largest and most expensive digital computers available today. They are best used in nuclear science, weather forecasting, aerodynamic modeling, etc. The 5 popular supercomputers are: Jaguar, Kraken, Nebulae, Jugene, road Runner.

Activity Zone
Across

   2 ABACUS   5 IBM   6 PASCALINE

Down

   1 ENIAC   7 ABC   3 UNIVAC   4 LEIBNIZ

Project Work

Napier Bones   Pascaline   EDVAC   Abacus   UNIVAC

Chapter - 2

Warm Up

   1. Monitor   2. Keyboard   3. Central Processing Unit

Activity

Input Devices	Output Devices
Light Pen, Keyboard, Barcode Reader, Joystick, Webcam	Plotter, Speakers, Monitor, Dot-matrix printer, Laser Printer

Exercise

A. 1. (b) CPU   2. (c) Both a and b 3. (b) Cathode Ray Tube

     4. (c) Laser Printer   5. (c) Both a and b

B. 1. CPU   2. output   3. Mechanical

     4. Light pen   5. barcode reader

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

D.1. It displays computer output.

2.   It is used for entering data and information into the computer.

3.   It is used to input data into the computer in the form of pictures.

4.   They are used to hear various sounds meant to alert the user, as well as music and spoken text.

E.1. Computer works by taking input, processing it and giving output. This is known as IPO cycle.

2.   An input device is used to receive data or instructions from the user. Example keyboard, mouse etc. An output device is used to display the results of processing. Example Printer, speaker, etc.

3.   Mouse could be mechanical, optical or cordless types. These types are as follows:

    a. Mechanical mouse- It uses ball for the movement of cursor on the computer screen.

    b. Optical mouse - It uses laser rays for the movement of cursor on the computer screen.

    c. Cordless mouse - It is battery driven and does not need any wire for the physical connection with the CPU.

4.   Dot matrix Printer - It prints the images and text in a form of tiny dots. This printer can print only in black and white.

    Inkjet Printer - It operates by propelling variably-sized droplets of liquid or molten material onto almost any sized page.

Inpact Printer

Advantages	**Disadvantages**
a. Less expensive	a. Noisy
b. Can make multiple copies	b. Slow
c. Durability	c. Print low quality sometime

Activity Zone

Input Device	Output Device	Storage Device	Processing Device
Mouse	Monitor	DVD	CPU
Keyboard	Printer	Pen Drive	Desktop processor
Scanner	Speakers		
Joystick		Hard Disk	
Barcode Reader			
Microphone			

Project Work : Do it yourself

Chapter - 3

Warm Up
1. The taskbar is a long horizontal bar at the bottom of the desktop.
2. Double-click opens the selected item.
3. Icon is a small graphical representation of a program or file.

Activity
Icons, Taskbar, Start Button, Desktop, Notification Area

Exercise
A. 1. (c) CPU   2. (b) Folder   3. (a) Aero Peek   4. (c) Files
   5. (a) Windows Explorer   6. (a) Tool   7. (a) Desktop
B. 1. Windows 10   2. Icons   3. Operating system
   4. Start menu   5. File   6. Left pane
C. 1. T   2. T   3. T   4. T   5. T   6. F
D.1. a. It allows us to reach more destination in much less time by browsing fastly and booting time is much short.
   b. It allows you to turn the opened windows transparent and make the desktop visible.
2. The screen that appears after switching on a computer is called desktop.
3. It mean to change the name of file and folder
   a. Right-click on the file/folder that has to be renamed and select the Rename option.
   b. Type the new name in the highlighted area.
   c. Press Enter key and the new name will be saved.

4. By following some steps:
   a. Right-click on the desktop and select Personalize option from the context menu.
   b. Click on Windows Color. A new Window of Window Color and Appearance will open.
   c. Choose the Colour Scheme.
   d. Click on the Save Changes button.
5. It is a handy tool to manage our files and folder in a computer.
6. Window Explorer screen is divided into 2 parts:
   a. The Left part (Left pane)
   b. The right part (Right pane)

Activity Zone

A.

File	Folder
A file is collection of related information stored together in a storage device.	Folder is like a cabinet which contains a group of files or sub folders.

B. 1. FILE 2. WINDOW 3. EXPLORER
   4. MENU 5. FOLDER 6. TASKBAR

Project Work

Across
1. START 3. TUX 4. TASKBAR
7. WALLPAPER 8. ICONS 9. DESKTOP

Below
2. THUMBNAIL 5. FILE 6. FOLDER 7. WINDOW

Chapter - 4

Warm up
1. Menu Bar, Title Bar
2. You can create a new blank document by clicking File then click new or you can also press Ctrl + N for opening new blank document.
3. Ctrl + P

Activity : Do it yourself

Exercise
A. 1. (a) Undo 2. (a) red wavy line 3. (b) Thesaurus
   4. (b) beautiful 5. (b) Vertical
B. 1. document 2. redo 3. green 4. Formatting
   5. font
C. 1. T 2. T 3. F 4. T 5. T

D.1. The steps are:
  a. Type: "Hi there".
  b. Click on Undo in the Quick Access Toolbar
  c. The typing would disappear.
  d. Click on Redo.
  e. The typing would reappear.
2. Formatting means to change the appearance of our document.
3. Thesaurus is a feature that enables you to proofread or edit the documents.
4. A font is a set of printable of displayable text characters in a special style and size.
  The steps to change font size are:
  a. Select the text to change the font size.
  b. Click on the drop-down arrow of font size option in font group of Home tab.
5. Line spacing changes the vertical distance between the lines of text in a document. We can change it by some steps:
  a. Select the text.
  b. Click on the down arrow of line spacing option from the Paragraph group in Home tab.
  c. Select the line spacing value you want to apply. The line spacing will change.

Activity Zone
A. 1. D E L E T E   2. C O P Y / P A S T E
    3. C U T   4. R E D O
B. 1. (d) underline   2. (e) Font colour
    3. (a) Italics   4. (c) Bold   5. (b) Highlighting

Project Work : Do it yourself

Chapter - 5

Warm up
  1. Scratch
  2. The block palette is where the different script blocks are located.
  3. The elements are Script, Area, Sprite.

Exercise
A. 1. (b) Software   2. (a) Cat Sprite   3. (b) below
    4. (b) three   5. (c)   6. (b)
B. 1. Scratch   2. Sprite   3. Sound   4. Look   5. Costume
    1. T   2. F   3. F   4. T   5. F
D.1. A Scratch is a multimedia programming language used to create interactive stories, games, animation, music and art by dragging and dropping of instructions.

2. The language used to write the instructions is called a programming language.
3. The sprite list displays thumbnails for all sprites in a project.
4. There are three tabs that are Script tab, Costume tab, Sound tab.
5. The ways to create a new costume are:
    a. Click Paint button to paint, new costume using Paint Editor.
    b. Click Import button to select a costume from the file.
    c. Click camera button to take photos from the web camera.

Activity : Do it yourself

Chapter - 6

Warm up
    1. Bill Kendrick   2. Text Tool   3. True

Exercise
A. 1. (b) 3 to 12   2. (b) Shape tool   3. (b) Eraser tool
    4. (c) Both   5. (c) Alt + F4
B. 1. mascot 2. 360° 3. Drip magic 4. Eraser 5. open dialog box
C. 1. T   2. F   3. T   4. F   5. F
D.1. Tux Paint is a free and open source graphics editor designed specially for the children.
2. Drip magic tool gives a dripping effect to our drawing. It is used to Scatter color or ink in our drawing.
3. The steps are: a. Click on open button from toolbar.
    b. Click on desired drawing.
    c. Click on open button. Selected drawing appears.
4. The steps are: a. Open the file with sky blue background.
    b. Select the Magic tool from the tool box and Rainbow effect from the sub toolbox.
    c. Now, place your wand anywhere in the drawing area and drag it to some other point you will see a train of rainbow colour as you draw.
    d. Now, select the real rainbow effect.
    e. Choose a single point on the drawing area from that point. Click and drag the mouse to a new location.
    f. You will see a rough sketch of the rainbow as you drag your box.
    h. As you reach the end point, release the left mouse button and you will see Real Rainbow on your screen.
5. We can exit Tux Paint by using Quit button.

Activity Zone
A. 1. (d)   2. (e)   3. (f)   4. (a)   5. (c)   6. (b)
B. Do it yourself

Project Work : Do it yourself

Chapter - 7

Warm Up

1. A presentation is a collection of slides arranged in sequential order which can be used to teach, provide information, entertainment, etc.
2. Yes   3. True

Exercise

A. 1. (b) presentation   2. (a) Save As dialog box
   3. (a) Macintosh   4. (b) PowerPoint

B. 1. Sound, animation, video   2. Slide   3. File Tab button
   4. Title

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

D.1. Slide is the current page that is displayed on the window. It is like a page of book that contains information about a topic.
2. Ctrl + M to add a new slide.
3. The presentation will be saved with PowerPoint extension .pptx.
4. ESC key is used to exit the slide show.
5. The stages are:
   Stage 1: Plan – Decide an outline for the presentation.
   Stage 2: Execute – Create the slides.
   Stage 3: Impress – verify content, add visual effects and practice.
   Stage 1: Deciding an outline for the presentation.
   a. Gather information for the given topic and choose an appropriate title for the presentation.
   b. Go through the information that you have collected. Group related information and list the main points you want to present.
   c. For each main point, list its sub-points.
   Stage 2: Execute – Creating the slides Microsoft PowerPoint 2016 is a presentation program of Microsoft Office suite. It creates presentation. There are number of pages in a presentation. An individual page is called a slide.
6. The three steps are:
   a. Content Review: Carefully go through each slide to ensure all information is accurate, relevant and presented clearly. Check for spelling and grammar errors.
   b. Design and Layout Check: Verify that the design elements such as fonts, colors, and slide layouts are consistent and visually appealing. Ensure that layout facilitates understanding.
   c. Functionality Testing: Test any animations, trasitions, multimedia elements and hyperlinks to ensure they work smoothly and enhance the presentation's delivery without causing distractions.
7. The benefit of using Word Art is that it creates visually appealing text with various styles, fonts, colors and effects. It highlights headings,

titles, etc. It gives a creative way to express ideas and concepts and provides a customized text according to the theme. It can also be manipulated, resized according to slide.

Steps to insert Word Art are:

a. Click on the insert tab on the Ribbon.
b. Click Word Art from text group. A gallery appears with different Word Art Styles.
c. Select the style of your choice.
d. Replace the text in the text box with your text and click outside it.

8. We can start a slide show by pressing F5 function key.

Activity Zone : Do it yourself

Project Work

    1. Ctrl + S   2. Ctrl + O   3. Ctrl + M

Chapter - 8

Warm Up

1. It is an electronic mail sent to anyone around the world.
2. Internet is a technology through which millions of computers around the world get connected together to share information by the means of cable or wireless media of communication.
3. False

Exercise

A. 1. (a) Computers   2. (c) access   3. (b) E-mail
      4. (b) Website   5. (b) Refresh

B. 1. Internet   2. Webpage 3. URL   4. link   5. underlined

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

D.1. It is a document created and stored in an electronic form.

2. It is a collection of webpages which provides information about organization, person, etc.
3. First page is the main page of the site which is called the Home page.
4. Hyperlink is a mechanism by which Web page is linked to another related web page.
5. It searches the various web pages on the world wide web.

E.1. A network is a collection of computers and devices interconnected to one another.

2. Internet is a technology through which millions of computers around the world get connected together to share information by the means of cable or wireless media of communication.
3. World Wide Web. It is a collection of web pages found on this network of computers. It helps us to access different sites on Internet.
4. Web browser is a program which lets us access the web pages.

5.   The things required for Internet are:
   • A Computer
   • A modem and telephone line
   • An Internet Browser to connect you to the ISP
   • An account with Internet Service Provider (ISP)
6.   It is an electronic mail sent to anyone around the world.
7.   Popular search engines are Internet Explorer, Chrome and Mozilla Firefox.

Activity Zone
A. 1. Microsoft Edge   2. Mozilla Firefox   2. Google Chrome
B. Do it yourself

Project Work
1.   Internet is used for searching information.
2.   It is used to send or receive text, graphics, sound and videos anytime and anywhere.
3.   We can download songs, movies, games, etc through Internet.
4.   Online education can be done through e-learning websites.
5.   On Internet, anybody can now buy and sell things.

Model Test Paper-1
A. 1. (c) Napier Bones   2. (b) Printer
    3. (a) Files   4. (b) beautiful   5. (b) Vertical
B. 1. Abacus   2. CPU   3. Icon   4. documents   5. Redo
C. 1. T   2. T   3. T   4. T   5. T

Model Test Paper-3
A. 1. (a) Cat sprite   2. (b) 3 to 12
    3. (c) Alt + F4   4. (a) Macintosh
    5. (a) Computers
B. 1. Scratch   2. Drip Magic 3. Open dialog box
    4. Home page   5. Internet
C. 1. F   2. T   3. F   4. T   5. F

National Cyber Olympiad (Sample Paper)
Logical Reasoning
    1. (a) 125   2. (b)
    3. (c) POEAR   4. (d) All of these
    5. (a) Aero Peek   6. (b) Input device

Techno Clone - 5

Chapter - 1

Warm up
1. Abacus   2. Charles Babbage   3. Charles Babbage

Activity 1
1. DESKTOP   2. LAPTOP   3. PALMTOP
4. SERVER   5. MAINFRAME   6. SUPERCOMPUTER

Activity 2
1. (b) Vacuum tubes   2. (c) Transistors   3. (a) ICs
4. (d) Powerful servers   5. (e) Portable Memory Device

Exercise
A. 1. (b) 1940-1956   2. (a) Transistors
   3. ICs (Integrated circuit)   4. (a) ENIAC 5. (b) PARAM
B. 1. Transistors 2. Fourth   3. Palmtop 4. first   5. second
C. 1. T   2. F   3. F   4. F
D. 1. (d) Transistors   2. (a) Integrated Circuits
   3. (c) Microprocessor   4. (b) Artificial Intelligence
E. 1. Two features are:
   a. They were faster, smaller and reliable than previous generation.
   b. They used high-level programming languages such as FORTRAN and COBOL.
2. The characteristics are: a. They were easier to update.
   b. They were faster, smaller, reliable and cheaper.
3. Second generation of computers had more computing power, were smaller in size, easier to maintain and were more affordable than the previous generation where vacuum tubes were used.
4. Server is a powerful version of desktop capable of catering to various applications in a network environmemnt.
5. Supercomputer has multiprocessor to perform typing scientific applications that need trillions of input per second while processing.

Activity Zone : Do it yourself   **Project work :** Do it yourself

Chapter - 2

Warm Up
1. Windows, linux   2. Adobe Photoshop, MS Excel   3. True

Activity
1. LINUX   2. WINDOW   3. MS WORD
4. MS EXCEL 5. PHOTOSHOP   6. ILLUSTRATOR

Exercise

A. 1. (a) Software   2. (b) Basic Input Output System
    3. (c) Both a and b   4. (b) MS EXCEL   5. (a) MS Word

B. 1. program   2. motherboard   3. Operating
    4. defragmentation   5. backup

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

D.1. A set of instructions, data or programs used to operate computers and execute specific taskes.

2. BIOS stands for Basic Input Output System. It starts or boots the computer. It checks whether all the hardware units are working. It loads the operating system.

3. The operating system is responsible for managing the computer's hardware and software resources. Its functions are it controls the memory needed for computer processes, manages disk space, controls peripheral devices and manages user communication with the computer.

4. Difference between System Software and Application Software

System Software	Application Software
(a) They are mainly designed for managing system resources.	(a) They are designed to accomplish tasks for specific purposes.
(b) A computer cannot run without system software.	(b) A computer can easily run without application software.
(c) Programming of system software is complex.	(c) Programming of application software is comparitively easy.
(d) Examples– Window, MAC	(d) Example – MS PAINT, Adobe Photoshop

5. It is essential to have a backup file because if original file is damaged, corrupt or lost then backup file will help.

6. Defragmentation picks up all the pieces of data that are spread accross your hard drive and puts them back together again. It is like a cleaning house for our computer.

Activity Zone

1. MS PAINT   2. LINUX

Project work : Do it yourself

Chapter - 3

Warm Up

1. Memory Card is used to store information.
2. Primary memory is the memory that can be accessed directly by the CPU.   3. Compact Disc

Activity

1. (e) CD-ROM
2. (c) RAM
3. (b) hard disk
4. (d) ROM
5. (a) Flash drive

Exercise

A. 1. (a) two digits 2. (b) 8 bits 3. (b) Random Access Memory
   4. (a) RAM   5. (b) external memory

B. 1. data 2. Information 3. Kilobyte 4. ROM 5. USB

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

D.1. A byte is the smallest group of information that a computer can process.

2. 1024 bytes are equal to one Kilobyte. It is equal to one page of the text book.

3. 1,048,576 bytes (1024 KB) are equal to one Megabyte. It is approximately equal to one book.

4. 1024 MB is equal to one Gigabyte. It is approximately equal to a pile of books.

5. 1024 GB is equal to one Terabyte. It is approximately equal to an entire book stand.

E.1. It applies to any electronic component in a computer system that is capable of storing data.

2.

Volatile Memory	Non-Volatile Memory
a. It is a temporary memory.	a. It is a permanent memory.
b. It stands for RAM (Random Access Memory)	b. It stands for ROM (Read-Only Memory)
c. Data stored on it can be changed.	c. Data stored on it can be read but cannot be changed.
d. It loses all the content when computer is turned OFF.	d. It does not lose the content when computer is turned OFF.

3. Primary memory is the memory that can be accessed directly by the CPU. It is internal memory.

It has two types:

(a) RAM (Random Access Memory)

(b) ROM (Read Only Memory)

(a) RAM is a temporary memory.

(b) ROM is a permanent memory.

4. The various types of secondary memory are:

a. Magnetic Tape : It is used for storing data backups. The average amount of storage is 5 MB to 140 MB.

b. Hard Disk : It is installed inside the computer. It has large storage capacity. It is a magnetic disk, on which the data is stored. It comes with 1 TB or more. By default all the work of computer stores in the hard disk. Hard disk is partitioned into drives such as C:, D:, E: drive etc.

c. CD-ROM : It stands for Compact Disk-Read only memory. It is portable and can store large data. It has a storage capacity of 700 MB.

d. DVD-ROM : It is a type of recordable DVD has a storage capacity of 4.1 GB. There is also an 8.54 GB dual-layer version, called DVD-R DL.

5. Magnetic Tape is used for storing data backup.

Activity Zone

1. DVD   2. CD-ROM   3. Pen drive   4. Hard Disk

Project work : Do it yourself

Chapter - 4

Warm up

1. False   2. Window   3. Windows XP, Window 7 and Window 8

Activity

1. (d) Desktop   2. (c) Icon   3. (e) Recycle Bin

4. (b) Control Panel   5. (a) Start button

Exercise

A   1. (c) Window 10   2. (b) Wallpaper

    3. (a) Icons   4. (a) taskbar   5. (b) title bar

B.   1. Desktop   2. Recycle bin   3. Selected   4. Menu 5. File

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

D.1. When we click on our user-id and enter our password, we see the main screen of windows, called desktop. Wallpaper, Icons, Taskbar are the things which we see mainly on desktop.

2. Icons are small graphics or pictures on the desktop with names such as computer document, Recycle Bin, Internet Explorer, etc.

3. A file is a collection of data stored together. A folder is like a bag that stores a group of files and/or other folders or subfolders.

4. The steps are:
   a. Select an icon.
   b. Double-click on it. Icon will be opened.

5. The steps are:
   a. Click once on the selected icon.
   b. Now it is deselected.

	Window XP		Window 10
a.	These processes are slow in Windows XP.	a.	These processes are very fast in Windows 10.
b.	There are not many graphical components in Windows XP.	b.	Windows 10 has lots of graphical components and is more attractive.
c.	It is necessary to install drivers in Windows XP.	c.	There is no need to install drivers in Windows 10.
d.	Window XP is not reliable as Windows 10.	d.	Windows 10 is very reliable.
e.	Windows XP is not secure as Windows 10.	e.	Windows 10 is very secure than Windows XP.

Activity Zone

Across

1. S T A R T   3. F I L E   4. T A S K B A R
7. W A L L P A P E R   8. I C O N S   9. D E S K T O P

Down

2. T I T L E   5. F I L E   6. F O L D E R   7. W I N D O W

Project work : Do it yourself

Chapter - 5

Warm up

1. We make a computer work by giving a set of instructions called a program.
2. Operating System   3. Wallpaper, Icons

Exercise

A. 1. (b) the user and the hardware

2. (c) viewing deleted files and folders

3. (a) Start Menu   4. (b) theme

B. 1. Operating system   2. Control panel
3. Screen Saver   4. large

C. 1. T   2. F   3. T   4. F

D.1. Operating System is the most basic software present on a computer system.

2. The task customising of computer can be done by using the Contral Panel. It can be open from the start menu.

3. Theme is a combination of pictures, colours and sound on the computer. It includes desktop background, window border colour, a sound scheme and a screen saver.

4. The screen resolution determines the amount of information you can view on the computer screen at any given time. A higher screen resolution makes everything appear small on the screen. A lower screen resolution makes everything appear large.

5. The steps are:
   a. Click on the Adjust screen resolution link under the Appearance and Personalization section in the Control Panel window. This displays the sceen resolution window.
   b. Click on the drop-down arrow next to resolution.
   c. Move the slider to the resolution you want.
   d. Click on the OK or Apply button. The screen resolution Changes accordingly and a Display Settings dialog box appears.
   e. Click on keep changes to use the new resolution or click Revert to go back to the previous resolution.

6. The option to change the date and time settings can be accessed by choosing the clock, language, and Region link in the control Panel Window.

Activity Zone : Do it yourself

Project Work

Step 1: Click Start   Step 2: Click Settings
Step 3: Click Personalization   Step 4: Click Themes
Step 5: Then click 'Change theme'
Step 6: Now click the tile to switch to the theme you'd like to use.

Chapter - 6

Warm up
   1. Ctrl + S   2. True   3. Alt + F4

Activity 1
   1. (c) Changing the colour of the text
   2. (d) Changing the width, line style and outline colour of the text.
   3. (b) Applying a visual effect to the text.
   4. (a) Changing the existing style of the text.

Activity 2
   1. SENTENCE CASE   2. LOWER CASE
   3. FOOTNOTE   4. WORDART

Exercise
A. 1. (b)   2. (c)   3. (b) Format   4. (b) end   5. (b) Lower case
B. 1. Picture   2. Clip Art   3. Word Art
   4. Text fill   5. Header, Footer

C. 1. T   2. F   3. T   4. F

D.1. Clip Art is a gallery of ready-made pictures that can be inserted directly in the document.

2. To resize the picture, click and drag any of the circles at the corners of the picture inward and outward. To stretch the picture, click and drag any of the squares at the centre of the each side of the picture inward or outward.

3. Cropping means to cut off a part of the picture.

4. **a.** Step 1: Click the Insert tab on the Ribbon

   Step 2: Click WordArt from the Text group. The Word Art gallery appears.

   Step 3: Select the style of your choice. A box appears with your text here' written inside the selected style.

   Step 4: Press Delete key and type the text.

   b. Step 1: Place the cursor where you want to insert the symbol.

   Step 2: Click the Insert tab.

   Step 3: Click symbol from the Symbols group. A list of symbols appears.

   Step 4: Select the symbol you require.

   c. Step 1: Double-click on the shape to select it. The format tab opens.

   Step 2: Click Shape Fill from the Shape Styles group. A colour palette appears.

   Step 3: Choose any colour from the colour palette. The shape gets filled with that colour.

   d. Step 1: Click the Insert tab.

   Step 2: Click Header from the Header & Footer group. A gallery appears.

   Step 3: Choose the style of your choice.

   Step 4: Now, type the text you want at the top of each page.

   Step 5: Now, click Close Header and Footer from the close group of Design tab.

   e. Step 1: Click the Insert tab.

   Step 2: Click Footer from the Header & Footer group. A gallery appears.

   Step 3: Choose the style of your choice.

   Step 4: Now, type the text for the footer.

   Step 5: Click close Header and footer from the close group of Design tab.

Activity Zone   Shift + F3

Project Work
TAB — INSERT TAB
COMMAND — CLICK HEADER OR FOOTER
GROUP — "Header and Footer" group

Chapter - 7

Warm Up

1. It enhances our presentations with pictures, sound effects, tables and charts.
2. There are four views: Normal, Slide Sorter, Notes Page and Reading view.
3. Notes Page

Exercise

A. 1. (b) Presentation   2. (a) Installed templates
    3. (c) Side show view   4. (c) 9   5. (a) Page up

B. 1. Powerpoint   2. Ctrl + S   3. Slide
    4. Gradient   5. Slide Sorter

C. 1. T   2. T   3. T   4. T   5. T

D.1. The basic purpose of any presentation is to communicate effectively.

2. It is a complete presentation software. It provides helpful suggestions on the layout, design and format of slides.
3. A slide is an individual page in a presentation.
4. A placeholder is a pre-formatted container on a slide for content (text, graphics or video).
5. The features are:
   a. It gives us several ways to create a presentation.
   b. Creating slides in the root of all our work with Powerpoint.
   c. Adding text will help us put our ideas into words.
   d. The multimedia features makes our slides Sparkle.
      We can add clip art, sound effects, music, video clips, etc.
6. To start a new presentation, click the File tab in PowerPoint then select New. From the New tab in backstage View, you have two choices.
   a. Start with a Blank Presentation. A blank presentation is a quick and easy way to start a new slide deck.
   b. Start a New Presentation with a Template. Powerpoint comes with dozens of templates you can use for creating a new presentation.
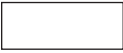
Activity Zone : Do it yourself

Project work : Do it yourself

Chapter - 8

Warm Up
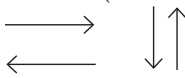
    1. True   2. Yes   3. True

Activity

1.   2.   3.   4.

5.

Exercise

A. 1. (a) Decision box   2. (a) Process box   3. (c) Algorithm
      4. (c) Alphanumerical   5. (c) Both of these

B. 1. Decision 2. algorithm 3. Ellipse 4. Arrows 5. Input

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

D.1. An algorithm is a sequence of well-defined instructions for completing a task or solving a problem.

2.   a. It makes the problem solving easy to read and understand.
      b. It is not dependent on any particular computer language.

3.   A flowchart is a diagram that represents a process or algorithm.

4.   Arrows (Flow Lines)

5.   Step 1: Start
      Step 2: Input the first number (A) and the second number (B)
      Step 3: Set the product (prod) to O
      Step 4: Multiply A*B and store the result in prod.
      Step 5: Output the product (prod)
      Step 6: End

Activity Zone : Do it yourself   **Project work :** Do it yourself

Chapter - 9

Warm Up

1.   A computer network is an interconnection of various computer systems located at different places.

2.   A Web browser is an application for accessing websites and the Internet.

3.   E-mail stands for electronic mail. It is a communication method that uses electronic devices to deliver messages across computer networks.

Activity

1. SERVER   2. INTERNET   3. PROTOCOL   4. EMAIL
5. ECOMMERCE   6. GOOGLE
7. TELECONFERENCING   8. GOOGLE MAP

Exercise

A. 1. (c) WAN   2. (a) SERVER   3. (a) Electronic mail   4. (b) LAN

B. 1. T   2. F   3. T   4. T

C.1. A computer network is an interconnection of various computer systems located at different places. The objectives are:
   a. Resource sharing is the main objective of the computer network.
   b. It is to provide the high reliability.
   c. Computer organization has helped organization in saving money.
   d. Computer network have provided means to increase system performance as the work load increases.
   e. Computer network help people who live or work apart to report together.
   f. Only authorized user can access resource in a computer network.

2. Teleconferencing refers to electronic meetings that involve people who are at physically different sites.

3. Difference between LAN and WAN

LAN	WAN
a. LAN stands for local area network.	b. WAN stands for wide area network.
b. It is confined to a single building or group of building.	b. It is a computer network that spans a relatively large geographical area.
c. One LAN can be connected to other LANs over any distance via telephone lines and radio waves.	c. WAN consists of two or more local-area networks (LANs).
d. A system of LANs connected in this way is called a Wide Area Network (WAN).	d. Computers connected to a wide area network are often connected through public networks, such as the telephone system.
e. There are many different types of LANs taken ring networks, Ethernets and ARC nets being the most common for PCs	e. The largest WAN in existence is the Internet.

4. The computer that provides resources to other computer on a network is known as a server.

Activity Zone : Do it yourself

Model Test Paper-1

A. 1. (c) Both a and b   2. (b) BIOS   3. (b) Secondary   4. (b) Live tiles

B. 1. Abacus   2. ROM   3. Secondary 4. Recycle Bin

C. 1. T   2. T   3. F   4. T

D.1. Charles Babbage is often referred to as the 'Father of the Computer'. In the early 19th century he has given the idea of a programmed mechnical calculator known as the 'Difference Engine'. Later he developed plans for 'Analytical Engine'. His work inspired subsequent generation of engineers and inventors. Inventors and Engineers for the development of the first programmable digital computer in 21st century.

2. A pen drive can store important files and data backups, carry favorite settings or applications, run diagnostic to troubleshoot computer problems or launch an OS from a bootable USB.

3. Primary Memory is the memory that can be accessed directly by the CPU. There are two types of Primary Memory: RAM (Random Access Memory) and ROM (Read Only Memory).

   RAM is a temporary memory.

   ROM is a permanent memory.

4. We can change the color scheme by following some steps:
   a. Select start
   b. Click settings
   c. Then click Personalization
   d. Click colors
   e. Then choose your own color.

Model Test Paper-2

A. 1. (b) Three   2. (b) Draw tab

3. (a) Paint bucket tool   4. (a) Software

B. 1. CSV   2. Digital Notes

3. Properties 4. Internet

C. 1. F   2. F   3. F   4. F

D.1. The steps are:
   a. Create a new document and type a letter or open an existing letter that you want to sent to different people at their respective addresses.

b. Click on the mailings tab. In the Start Mail Merge group, click on the Start Mail Merge drop-down arrow and select the step by step Mail Merge Wizard option.

c. The Mail Merge task pane appears on the right side of the application window.

d. Now, select the letters radio button from the 'select document type' section.

e. Click on Next: Starting document under the 'Step 1 of 6' section at the bottom of the task pane.
   A new task pane appears on the screen.

f. Click on the use the current document radio button under the 'Select Starting document' section.

g. Click on Next: Select recipients under 'Step 2 of 6' section. Another task pane appears showing option for the defining recipients list.

2. You can easily convert handwriting to text via OCR technology. By a free scanner app like Adobe Scan, a smartphone, or an online OCR option, you can scan the handwriting with your smartphone.

3. The Paint Bucket tool allows you to select a color or texture and apply it to a model face. The Point Bucket tool is used for three primary tasks when modeling and rendering: Replacing a solid color or texture with a downloaded texture image from your Texture Library.

4. The three services provided by the Internet are:

a. E-commerce — It referes to the paperless exchange of business information using Electronic Data Interchange, Electronic mail, Electronic Bulletin Boards, etc.

b. Electronic Data Interchange (EDI) — It is the computer-to-computer exchange of business documents in a standard format.

c. Voice Messaging — It is a new communication approach which is similar to electronic mail except that it is an audio message that is processed.

National Cyber Olympiad (Sample Paper)

1. (b) Delete
2. (c) Bump
3. (c) A system preventing unauthorized access to a network
4. (d) All of these
5. (d) Printer
6. (a) Rows and columns
7. (d) Speaker