

# HISTORY OF THE COMPUTER



## Teaching Objectives:

The objectives of this unit are to:

- Explain the stages in the development of computer

## Learning Outcomes:

After completing the unit, students will be able to:

- Explain the stages in the development of computer

**Number of allocated periods: 4**

### Period 1:

Sample lesson plan for a 40- minute period

- Reading and explanation (35 minutes)

Explain the working of abacus, Napier's Bones and Pascaline.

- Homework assignment (5 minutes)

Attempt Ex. C pg. 4

### Period 2:

- Reading and explanation (35 minutes)

Explain the working of Difference Engine and Analytical Engine, Mark-1.

- Homework assignment (5 minutes)

Attempt Ex. E pg. 5

### Period 3:

- Classroom activity (35 minutes)

Explain the mechanism of ENIAC, MITS Altair and IBM PC.

- Homework assignment (5 minutes)

Attempt Ex. A pg. 4

### Period 4:

- Classroom activity (35 minutes)

Attempt Ex. B pg. 4, D pg. 5

- Homework assignment (5 minutes)

Revise the chapter.



## History of the Computer

### EXERCISE-1

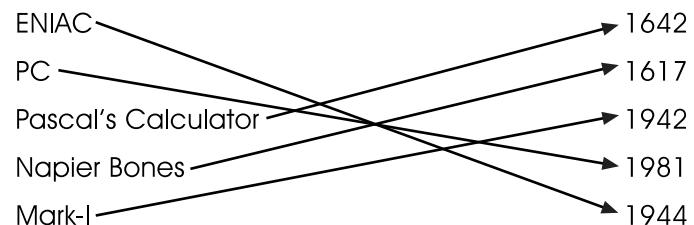
#### A. Write True or False:

1. The computer was first made for slow calculations. False
2. Abacus was invented about 5000 years ago. True
3. Charles Babbage created a machine called the Pascaline. False
4. Dr. John Mauchly is called the Father of Computer. False
5. The 'Apple', is a computer manufacturing company. True

#### B. Match the following history:

##### Calculating Device

##### Made in



#### C. Fill in the missing letters:

1. Calcula t o r
2. Aba c u s
3. Ro d s
4. Napier's b o n e s
5. Engi n e

#### D. Answer the following questions:

1. What was the first calculating device?

Abacus was the first calculating device

2. Who is regarded as the 'Father of Computer'?

Charles Babbage is regarded as the 'Father of Computer'.



## History of the Computer

3. Which company introduced PC?

IBM Corporation introduced PC.

4. When was Napier's Bones invented?

Napier's Bones was invented in the seventeenth century.

5. IBM stands for:

IBM stands for International Business Machines.

### E. Match the correct devices with their names:

Abacus



Napier Bones



Pascal's Calculator



Mark-I



Analytical Engine



### Activity / Test sheet based on Unit 1

1) Answer the following questions:

a. Name the types of abacus.

Ans. The types of abacus are: Russian abacus, Chinese abacus, Japanese abacus

b. From where did Napier's Bones get their name?

Ans. The rods of Napier's Bones were carved from bones, so they were called Napier's Bones.

c. Which arithmetic operations were performed by Pascaline?

Ans. Pascaline helped to add and subtract numbers.

d. Name the machines developed by Charles Babbage.

Ans. Charles Babbage developed Difference Engine and Analytical Engine.



## History of the Computer

e. Define Mark-1.

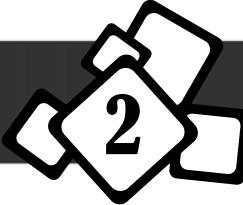
Ans. In 1942, Howard Aiken, an American professor, turned the dream of Babbage into reality. He made a large computer called Mark-1, the first computer. It could perform three addition and one subtraction operation in one second. It took 3 to 5 seconds to perform a multiplication operation.

f. What does ENIAC stand for?

Ans. ENIAC stands for Electronic Numerical Integrator And Calculator.

g. When was the first personal computer launched and by whom?

Ans. The first personal computer was launched by IBM in 1981.



## THE COMPUTER GENERATION



### Teaching Objectives:

The objectives of this unit are to:

- Explain the features of generations of computer

### Learning Outcomes:

After completing the unit, students will be able to:

- Explain the features of generations of computer

**Number of allocated periods: 4**

#### Period 1:

Sample lesson plan for a 40- minute period

- Reading and explanation (35 minutes)

Explain the first generation of computer.

- Homework assignment (5 minutes)

Attempt Ex. A (1) pg. 11

#### Period 2:

- Classroom activity (35 minutes)

Explain the second and third generations of computer.

- Homework assignment (5 minutes)

Attempt Ex. A (2, 3) pg. 12

#### Period 3:

- Reading and explanation (35 minutes)

Explain the fourth and fifth generations of computer.

- Classroom activity (5 minutes)

Attempt Ex. A (4, 5) pg. 12

#### Period 4:

- Classroom activity (35 minutes)

Attempt Ex. B pg. 12, Ex. C, D, E pg. 13

- Homework assignment (5 minutes)

Revise the chapter.



## EXERCISE-2

### The Computer Generation

#### A. Answer the following questions:

1. How many generations of computers are there?

There are five generations of computer.

2. Write any two differences between first generation and second generation computers.

First generation	Second generation
i. Computers of first generation used vacuum tubes.	Computers of Second generation used transistors.
ii. Computers were very large in size.	Computers were smaller in size.

3. Write a small note on the computers of third generation.

Computers were faster, much smaller, more reliable and cheaper than the second generation computers. They were totally general purpose machines.

4. Write few features of fourth generation computers.

PCs were faster, much smaller, more reliable and cheaper than the third generation computers. Heat generated was negligible and no air conditioning was required.

5. What are the dreams of the scientists?

The dream of the scientists is to develop a machine that behaves just like humans in sense of talking, seeing, hearing and using human languages.

**B. Write True or False:**

1. Computer development has six generations. False
2. Second generation computers were more than ten times faster than the first generation computers. True
3. The whole computer's CPU except primary memory is placed on a single chip. True
4. The mainframe computers are several times more powerful than the super computers. False
5. Fifth generation computers are totally general purpose machines. True

**C. Write full form of the following:**

1. EDVAC Electronic Discrete Variable Automatic Computer
2. EDSAC Electronic Delay Storage Automatic Calculator
3. UNIVAC Universal Automatic Computer
4. SSI Small Scale integration
5. MSI Medium Scale integration
6. LSI Large Scale integration

**D. Fill in the blanks:**

1. 'Generation' is a popular word.
2. The transistors were used in second generation.
3. The whole computer's CPU except primary memory is placed on a single chip.
4. The PCs became much smaller in the fifth generation.
5. The computers of fifth generation consumed much less power as compared to fourth generation computers.

**E. Match the following:**

- |                                    |                     |
|------------------------------------|---------------------|
| 1. Vacuum tubes                    | → Fifth Generation  |
| 2. Large Scale Integrated Circuits | → First Generation  |
| 3. Transistors                     | → Third Generation  |
| 4. Integrated Circuits             | → Fourth Generation |
| 5. Microprocessors                 | → Second Generation |

**Activity / Test sheet based on Unit 2****1) Expand the following:**

- a. MANIAC Mathematical Analysis Numerical Integrator And Computer
- b. IC Integrated Circuit

**2) Answer the following questions:**

- a. Given below are the generations. Write their appropriate period.

First generation	1942 - 1955
Second generation	1956 - 1964
Third generation	1965 - 1975
Fourth generation	1976 - 1979
Fifth generation	1980 – till present

- b. Which generation computers used machine and assembly language?

Ans. First generation computers used machine and assembly language.

- c. Name some computers used in first generation.

Ans. ENIAC, EDVAC, EDSAC, UNIVAC, MANIAC are some computers used in first generation.

- d. Define microprocessor.

Ans. The whole computer's CPU except primary memory is placed on a single chip called microprocessor.



## COMPUTER DEVICES



### Teaching Objectives:

The objectives of this unit are to:

- Explain the types of computer devices
- Explain the purpose of different parts of the keyboard
- Explain the purpose of different input devices

### Learning Outcomes:

After completing the unit, students will be able to:

- Explain the types of computer devices
- Explain the purpose of different parts of the keyboard
- Explain the purpose of different input devices

**Number of allocated periods: 4**

#### Period 1:

Sample lesson plan for a 40- minute period

- Reading and explanation (35 minutes)

Explain the types of computer devices. Also explain the types of keys on the keyboard.

- Homework assignment (5 minutes)

Attempt Ex. A (1, 2) pg. 21

#### Period 2:

- Reading and explanation (30 minutes)

Explain the purpose of various keys on the keyboard. Also explain mouse and its actions.

- Classroom activity (5 minutes)

Attempt Ex. E pg. 23

- Homework assignment (5 minutes)

Attempt Ex. A (3) pg. 21

#### Period 3:

- Reading and explanation (35 minutes)

Explain trackpad, joystick, scanner and touch screen.

- Homework assignment (5 minutes)

Attempt Ex. B pgs. 21-22.

#### Period 4:

- Reading and explanation (35 minutes)

Explain barcode reader, digital camera and microphone.

- Homework assignment (5 minutes)

Attempt Ex. C, D pg. 22



## EXERCISE-3

### Computer Devices

#### A. Answer the following questions:

1. Why do we use computer devices?

Ans. We use computer devices to perform different tasks. E.g.

input devices are used to feed data and instructions into the computer.

2. Name any two types of input devices.

Ans. Any two input devices are keyboard, mouse.

Note for teachers: Students can write the name of any input device mentioned in the chapter.

3. Explain the following keys:

i. Alphabet Keys: The keys on which letters like A, B, C are printed are called Alphabet keys. There are twenty six (26) alphabet keys on a keyboard.

ii. Numeric Keys: Numeric keys are the keys on which numbers from 0 to 9 are printed. These keys are used for typing numbers.

These are also called Number keys.

iii. Function Keys: There are keys on which F1, F2, F3 etc. are printed. These keys are called Function keys. These keys perform different functions in different programs.

iv. Arrow Keys: Arrow keys have arrows printed on them. These keys are used to move the cursor on the screen. Arrow keys are used to move the cursor in different directions i.e. up, down, left or right.

v. Special Keys: Special keys are used to perform specific function. These keys are spread over the whole keyboard.

**B.** Fill in the blanks using the words given in the box:

instructions    ATMs    mouse    dropping    four  
**Backspace key    mouse pad    joystick    Caps Lock**

1. Computers have four parts.
2. A computer cannot work on its own without data and instructions.
3. Capital letters are typed when Caps Lock is on.
4. Backspace key is placed above the Enter key on the keyboard.
5. A mouse has a ball at the bottom that rolls when you move the mouse on the mouse pad.
6. Releasing the mouse button after moving the object is called dropping.
7. Touch screen is commonly used in ATMs.
8. A joystick is used in playing games.

**C. Write True or False:**

1. The scanner saves an image as a file on the computer. True
2. A Trackball allows us to scan a photograph or a graphic. False
3. A Joystick is most commonly used for playing video games on a computer. True
4. We see trackpad on mobiles. False
5. Space Bar key is the smallest key on the keyboard. False

**D. Write short notes on the following:**

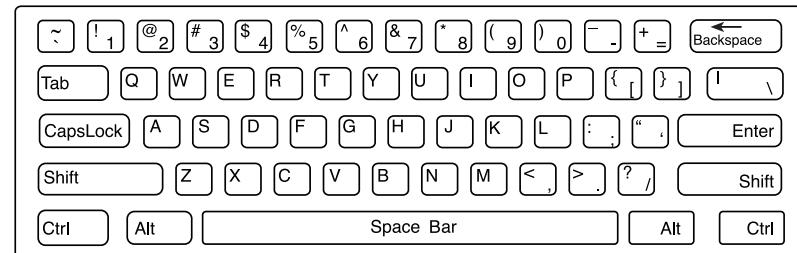
1. Digital camera

Digital camera takes pictures just like an ordinary camera. However, a digital photograph can be transferred into a computer. It can be

viewed, printed or edited just as any other image.

**2. Barcode reader**

A barcode reader reads the barcode and translates the information such as name and price of the article for quick billing.

**E. See the following diagram of the keyboard and follow the instructions given below:**

1. Find out the number 2 and color it red.
2. Make a circle around the letter P.
3. Fill yellow color in the letter O.
4. Color the Space Bar green.
5. Put a tick mark on Enter key.
6. Color the first letter of your own name.

**Note for teachers:** Let the students do this activity in the book which can be checked.

**Activity / Test sheet based on Unit 3**

- 1) Answer the following questions.

- Name the types of computer devices.

Ans. Input devices, Processing devices, Output devices and Storage devices.

- Which is the most important input device? How many types of keys are present on keyboard?

Ans. Keyboard is the most important input device. It has 104 keys which are divided into five groups.



## Computer Devices

- i) Alphabet keys
- ii) Numeric keys
- iii) Function keys
- iv) Arrow keys
- v) Special keys

c. Name and define the actions of mouse.

Ans. The mouse actions are:

- i) Single click: It is used to select some object on the monitor.
- ii) Double click: The process of pressing and releasing the left mouse button twice quickly is called double click.
- iii) Dragging and dropping: Moving the mouse while keeping the left mouse button pressed is known as dragging. Releasing the mouse button after moving the object is called dropping.

d. Define touch screen.

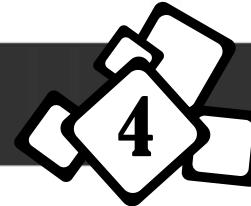
Ans. Touch screen is a computer screen that can sense the touch of a human finger. The user can select options just by touching the screen.

e. Where is touch screen used?

Ans. Touch screen is used in places where it is needed to provide general information to the public. It is commonly used in post offices, ATMs, railway stations and airports.

f. Which device is used to give voice input to the computer?

Ans. A microphone is used to give voice input to the computer.



## OUTPUT DEVICES



### Teaching Objectives:

The objectives of this unit are to:

- Explain the term output and output devices
- Differentiate between hard copy and soft copy
- Explain the purpose and types of output devices

### Learning Outcomes:

After completing the unit, students will be able to:

- Explain the term output and output devices
- Differentiate between hard copy and soft copy
- Explain the purpose and types of output devices

### Number of allocated periods: 4

#### Period 1:

Sample lesson plan for a 40- minute period

- Reading and explanation (35 minutes)

Explain the terms output, output devices, monitor and its types.

- Homework assignment (5 minutes)

Attempt Ex. A (1) pg. 28, B (1, 2) pg. 29

#### Period 2:

- Reading and explanation (35 minutes)

Explain printer and its types.

- Homework assignment (5 minutes)

Attempt Ex. A (2, 3, 4) pg. 28

#### Period 3:

- Reading and explanation (35 minutes)

Explain the remaining output devices.

- Homework assignment (5 minutes)

Attempt Ex. C pg. 29

#### Period 4:

- Classroom activity (35 minutes)

Attempt Ex. B (3) pg. 29, D,E pg. 30

- Homework assignment (5 minutes)

Read the chapter.



## EXERCISE-4

### Output Devices

#### A. Answer the following questions:

1. Why do we need output devices?

Output devices are needed to give the output in the form of soft copy and hard copy.

2. Write about any two output devices. Explain their use in your own words.

i) Monitor: A monitor is a soft copy output device which looks like a TV. After the data is processed by the CPU, it is displayed on the monitor.

ii) Printer: A printer is a hard copy output device needed by the computer for printing the data that can be carried, sent and read independently.

3. Briefly explain the various types of printers.

The types of printers are explained below.

i) Character printer: Character printers print one character at a time. Its example is dot matrix printer.

ii) Line printer: Line printers are high speed printers that print one line at a time. These printers print large quantity of output very quickly.

Examples of line printers are drum printer and chain printer.

iii) Page printer: Page printers print a whole page at a time.

Examples of page printers are inkjet printers and laser printers.

4. Can we use a printer in place of a monitor?

We cannot use a printer in place of a monitor.



### Output Devices

#### B. Write the difference between the following:

1. Monochrome Monitor and Color Monitor.

<u>A monochrome monitor displays information generally in one color only i.e. black or white,</u>	<u>A color monitor displays information in many colors,</u>
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2. Analog Monitor and Digital Monitor.

Analog monitors can display only a few colors. Their image quality is not high, therefore, cannot be used for multimedia purposes. Their prices are less than digital monitors.

Digital monitors can display output in many colors. They are bigger in size and are faster but their prices are higher than analog monitors.

3. Printer and Monitor.

A printer is a hard copy output device needed by the computer for printing the data that can be carried, sent and read independently.

A monitor is a soft copy output device which looks like a TV. After the data is processed by the CPU, it is displayed on the monitor.

#### C. Fill in the blanks:

1. A computer has mainly two types of \_\_\_\_\_ output \_\_\_\_\_ devices.

2. All sorts of informations can be seen on the \_\_\_\_\_ monitor \_\_\_\_\_.

3. The printed copy of the output is called the \_\_\_\_\_ hard copy \_\_\_\_\_.

4. A page printer requires more memory than a \_\_\_\_\_ character/line \_\_\_\_\_ printer.

5. Plotter is generally used by \_\_\_\_\_ architects \_\_\_\_\_ and \_\_\_\_\_ engineers \_\_\_\_\_.

#### D. Write True or False:

1. A color monitor displays information in one color. False



## Output Devices

2. Character printers print one character at a time. True
3. An inkjet printer uses small drops of ink for printing the output. True
4. Plotters are output devices for printing high quality drawings. True
5. A plotter is used to play games on the computers. False

**E. Write short notes on the following:**

1. Projector  
A projector is an output device used to project output on to a large screen just as we would see a movie in a theater.
2. Plotter  
A plotter is an output device for printing high quality drawings. Plotter is used by architects and engineers where fine work is involved.

**Activity / Test sheet based on Unit 4**

- 1) Answer the following questions.
  - a. Define output.  
Ans. The result after processing is called output.
  - b. Define monitor. Also write its types.  
Ans. A monitor is a soft copy output device which looks like a TV. After the data is processed by the CPU, it is displayed on the monitor. Its types are
    - i) Monochrome monitor
    - ii) Color monitor
  - c. Differentiate between hard copy and soft copy.  
Ans. The information that we see on the screen is called a soft copy.  
The printed copy of the output is called a hard copy.
  - d. How are character printers different from line printers?  
Ans. Character printers print one character at a time while line printers are high speed printers that print one line at a time.
  - e. Name one character printer and one page printer.  
Ans. Character printer: Dot matrix printer  
Page printer: Laser printer
  - f. What does laser stand for?  
Ans. Laser stands for Light Amplification by Stimulated Emission of Radiation.



## PROCESSING AND STORAGE DEVICES



**Teaching Objectives:**

The objectives of this unit are to:

- Explain CPU and its parts
- Explain the types of memory
- Explain primary and secondary memory

**Learning Outcomes:**

After completing the unit, students will be able to:

- Explain CPU and its parts
- Explain the types of memory
- Explain primary and secondary memory

**Number of allocated periods: 4**

**Period 1:**

Sample lesson plan for a 40- minute period

- Reading and explanation (35 minutes)

Explain CPU and its parts briefly.

- Homework assignment (5 minutes)

Attempt Ex. A (1, 2) pg. 38

**Period 2:**

- Classroom activity (35 minutes)

Explain primary memory and its types (ROM).

- Homework assignment (5 minutes)

Attempt Ex. A (3, 4) pg. 38, Ex. D pg. 40

**Period 3:**

- Reading and explanation (35 minutes)

Explain RAM, secondary memory (hard disk, USB drive).

- Homework assignment (5 minutes)

Attempt Ex. B pg. 38

**Period 4:**

- Classroom activity (35 minutes)

Explain remaining secondary storage devices.

- Homework assignment (5 minutes)

Attempt Ex. A (5) pg. 38, Ex. C pg. 39, Ex. E pg. 40



## Processing and Storage Devices

### EXERCISE-5

A. Answer the following questions:

1. What is the full form of CPU?

CPU stands for Central Processing Unit.

2. What is the main function of CPU?

CPU is the main part of a computer which works like the human brain. It processes all the instructions, does calculations and manages the smooth flow of information in a computer system.

3. What is Primary Memory? Give examples.

The primary memory contains the computer programs and instructions that can be directly read by the CPU. It also stores data on which work is being done at a given time. Primary memory is also called internal memory. Primary memory is of two types:

i) ROM      ii) RAM

4. What is Secondary Memory? Give examples.

All the external storage devices like CD, USB and hard disk are known as secondary memory. When any program or data is input into the computer, it is saved permanently in the secondary memory.

5. Describe the main difference between a CD and a DVD.

A compact Disc, commonly known as CD, can store up to 700 MB of data. Digital Versatile Disc, commonly known as DVD, stores data on both sides. It can read data at a faster rate and can store about 25 times more information than a CD.



## Processing and Storage Devices

B. Fill in the blanks:

1. \_\_\_\_\_ CPU \_\_\_\_\_ is the brain of the computer.

2. ALU performs the \_\_\_\_\_ arithmetic \_\_\_\_\_ and \_\_\_\_\_ logical \_\_\_\_\_ operations.

3. \_\_\_\_\_ CPU \_\_\_\_\_ controls the operations of the computer.

4. \_\_\_\_\_ Memory Unit \_\_\_\_\_ stores the data.

5. The result is sent to the \_\_\_\_\_ output \_\_\_\_\_ device.

6. A USB is a \_\_\_\_\_ storage \_\_\_\_\_ device.

7. A hard disk has a very large \_\_\_\_\_ storage \_\_\_\_\_ capacity.

8. A DVD contains data more than a \_\_\_\_\_ CD \_\_\_\_\_ .

9. A \_\_\_\_\_ DVD \_\_\_\_\_ stores data more than a CD.

10. A USB is also known as \_\_\_\_\_ pen drive \_\_\_\_\_ or \_\_\_\_\_ thumb drive \_\_\_\_\_ .

C. Write True or False:

1. The primary memory is also called auxiliary memory. False

2. The ROM is located on the keyboard of a computer. False

3. A hard disk has a very large storage capacity. True

4. A USB storage is larger than a DVD. True

5. Data found on a hard disk can be rewritten. True

6. A DVD contains more storage than a CD. True

7. We can store data in storage devices. True

8. A CD is bigger in size than a DVD. False

9. Data can be transferred from a hard disk to a CD or a DVD. True

10. The maximum Storage capacity of a USB is 1024 KB. False



## Processing and Storage Devices

D. Write full form of the following:

1. ALU Arithmetic Logic Unit
2. CU Control Unit
3. MU Memory Unit
4. PROM Programmable Read Only Memory
5. EPROM Erasable Programmable Read Only Memory
6. EEPROM Electrically Erasable Programmable Read Only Memory
7. ROM Read Only Memory
8. RAM Random Access Memory

E. Write short notes on the following:

1. Hard disk The main device used by a computer to store information is hard disk. It has a very large storage capacity. We can read as well as write data on the hard disk as many times as we need.
2. Primary memory Primary memory contains the computer programs and instructions that can be directly read by the CPU. It also stores data on which work is being done. Primary memory is also called internal memory.
3. CD A compact disc, also known as CD, is a portable storage device. It is a circular disc made of a hard plastic material and is coated with a very thin layer of metal. It can store data upto 700 MB.

### Activity / Test sheet based on Unit 5

1) Answer the following questions:

a. Name and explain the parts of CPU.

Ans. The parts of CPU are:

i) ALU (Arithmetic Logic Unit)

ALU performs all arithmetic calculations like addition, subtraction and multiplication. It also makes all logical decisions.



## Processing and Storage Devices

ii) Memory Unit (MU)

Memory Unit consists of primary memory which in turn is divided into ROM and RAM.

iii) Control Unit (CU)

Control Unit controls all the parts of the computer.

b. Name and explain the types of primary memory.

Ans. The types of primary memory are:

i) ROM:

Read Only Memory (ROM) is a permanent memory that contains some instructions and programs that are essential for a computer to operate.

ii) RAM:

Random Access Memory (RAM) is the working memory of the computer system. The software we use and the data we feed while working is all stored in RAM.

c. State three advantages of data storage devices.

Ans. The three advantages of data storage devices are:

- i) Large storage space
- ii) Easy transfer of data
- iii) Easy to change data

d. Write the basic units of memory.

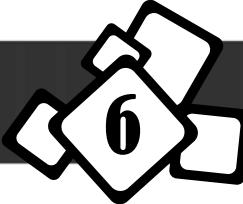
Ans.	8 bits	=	1 byte
	1024 bytes	=	1 KB
	1024 KB	=	1 MB
	1024 MB	=	1 GB
	1024 GB	=	1 TB

e. How is CD-R different from CD-RW?

Ans. On a CD-R, data is written once and can be read many times but its contents cannot be erased. CD-RW can be used to write data over and over again.

f. Define a blu-ray disc.

Ans. A Blu-ray disc is the latest among the storage devices and can be used to store data upto 25 GB.



## MORE ON WINDOWS 7



### Teaching Objectives:

The objectives of this unit are to:

- Explain the parts of Windows 7 screen
- Explain the opening and closing of an application
- Explain changing of Desktop Background and Windows Color
- Explain screensaver and changing screensaver
- Explain the working of Windows Accessories

### Learning Outcomes:

After completing the unit, students will be able to:

- Explain the parts of Windows 7 screen
- Open and close an application
- Change Desktop Background and Windows Color
- Explain screensaver and change screensaver
- Work on Windows Accessories

**Number of allocated periods: 4**

#### Period 1:

Sample lesson plan for a 40- minute period

- Reading and explanation (20 minutes)

Explain the parts of Windows 7 screen, Start up and Shut down.

- Classroom activity (15 minutes)

Let students practice the options.

- Homework assignment (5 minutes)

Revise the topic.

#### Period 2:

- Classroom activity (15 minutes)

Explain the opening and closing an application, changing Desktop Background and Windows Color.

- Classroom activity (20 minutes)

Let the students practice independently.

- Homework assignment (5 minutes)

Attempt Ex. E (1, 2) pg. 52

#### Period 3:

- Reading and explanation (10 minutes)



## More on Windows 7

Explain screensaver and the process of changing the screensaver and Calculator.

- Classroom activity (25 minutes)

Attempt activities on pgs. 46 and 47. Let students practice independently.

- Homework assignment (5 minutes)

Attempt Ex. A, B pg. 50, E (3, 4) pg. 52

#### Period 4:

- Reading and explanation (15 minutes)

Explain Windows Accessories.

- Classroom activity (20 minutes)

Let students practice independently. Attempt Ex. C, D pg. 51

- Homework assignment (5 minutes)

Attempt Ex. E (5, 6) pg. 52.

## EXERCISE-6

#### A. Tick (✓) the correct answer.

1. What manages and controls the working of a computer?  
a. Operating system  b. Desktop \_\_\_\_\_ c. Screen saver \_\_\_\_\_
2. Calculator and sticky notes are  
a. Gadgets \_\_\_\_\_ b. Icons \_\_\_\_\_ c. Accessories
3. Which gadget displays the current time?  
a. Clock  b. Calendar \_\_\_\_\_ c. Weather \_\_\_\_\_
4. Which gadget displays pieces of a picture as a puzzle?  
a. Clock \_\_\_\_\_ b. Weather \_\_\_\_\_ c. Picture puzzle

#### B. Fill in the blanks. Choose the words from the box.

desktop	record	accessories	temperature	booting
weather	calculator			

1. Windows \_\_\_\_\_ desktop \_\_\_\_\_ is the main screen that appears after the \_\_\_\_\_ booting \_\_\_\_\_ process is completed.

2. Weather gadget displays the \_\_\_\_\_ temperature \_\_\_\_\_ and \_\_\_\_\_ weather \_\_\_\_\_ of the



selected city.

3. Windows Accessories is a set of application software.

4. A Calculator is an accessory used to solve sums.

5. Sound recorder program is used to record voice.

#### C. Cross (x) the odd one out:

1. Bubbles	Ribbon	<input checked="" type="checkbox"/> Calendar	3D Text
2. <input checked="" type="checkbox"/> Landscapes	Clock	Weather	Picture puzzle
3. Close	Options	<input checked="" type="checkbox"/> Drag gadget	Calendar
4. Calculator	Sticky notes	<input checked="" type="checkbox"/> Clock	Sound recorder
5. Solitaire	Chess	Freecell	<input checked="" type="checkbox"/> Bubbles

#### D. Name the following gadgets and write their uses:



Name: Weather

Use: Displays the temperature and weather of the selected city.



Name: Clock

Use: Displays current time in the current time zone.



Name: Picture Puzzle

Use: Displays a 4-by-4 grid containing 15 jumbled picture pieces and one blank square.



Name: Calendar

Use: Displays the current date, a calendar for the current month, or both.

#### E. Answer these questions.

1. How do you change the desktop background?

Ans. Right – click on the desktop. Click on Personalize.

Click on Desktop Background.

Select picture location.

Choose picture position.



Click on the background picture from any of the categories.

2. How do you change the color of window?

Ans. Right – click on the desktop. Click on Personalize.

Click on Window Color.

Click on Enable transparency.

Drag the bar on Color intensity to make the colour lighter or darker.

Choose a colour.

Click on Save changes.

3. What is a screen saver? Write steps to set a screen saver.

Ans. A screen saver is a still or moving picture that appears when the keyboard or mouse is not touched for some time.

Steps to change the screen saver are:

Right – click on the desktop. Click on Personalize.

Click on Screen saver.

Set the time after which you want the screen saver to start.

Click on OK button.

4. What are gadgets?

Ans. A desktop gadget is a software, or a small application, that is designed to sit on a user's desktop screen. Typically, desktop gadgets perform simple functions, such as displaying the time or weather.

5. Write the steps to use the following:

a. Calculator

Click on Start → All Programs → Accessories → Calculator

b. Sticky Notes

Click on Start → All Programs → Accessories → Sticky Notes

c. On-screen Keyboard

Click on Start → All Programs → Accessories → Ease of Access

On-screen Keyboard

6. What is the purpose of Sound Recorder?

Ans. Sound Recorder is an application used to record sounds.

### Activity

#### Do the following activities:

1. Set any desktop background from the Characters category in the Personalization window.
2. Set Ribbons as the screen saver of your computer.
3. Set the Clock gadget on your desktop.
  - a. Click on the Options button and choose a different clock.
  - b. Tick () 'Show the second hand'.
  - c. Give a clock name and click on OK.
4. Record a poem in your voice and save it on your computer.
5. Open Calculator program and solve the following sums.
 

a. $4 \times 12$	b. $100 - 82$	c. $10000 \div 5$
d. $3 \times 2 + 4 \div 2$	e. $7845 - 4500$	f. $6 + 8 + 56 - 12$



### Activity / Test sheet based on Unit 6

1. Answer the following questions:

a. Define hardware and software.

Ans. Hardware is the physical components of the computer and software is a set of commands that control the working of the computer.

b. How many types of software are there? Describe each one briefly.

Ans. There are two types of software.

i. System software: A program that controls and operates the computer hardware.

ii. Application software: A program that is installed and used according to our needs.

c. What is present on the desktop?

Ans. Desktop contains icons, Start button and other features

d. Define icons.

Ans. Icons are small pictures that represent different programs or saved items.

e. What are the two ways of opening an application?

Ans. The two ways of opening an application are:

- i) Click on Start. Click the name of application.
  - ii) Find the application. Double click it / Right click on the icon and choose Open.
  - f. Write short cut keys of the following tasks:
- |                 |                  |
|-----------------|------------------|
| i) Save         | Ctrl + S         |
| ii) Open        | Ctrl + O         |
| iii) Close      | Ctrl + W         |
| iv) Delete      | Del              |
| v) Exit         | Alt + F4         |
| vi) Help        | F1               |
| vii) Select All | Ctrl + A         |
| viii) Undo      | Ctrl + Z         |
| ix) New         | Ctrl + N         |
| x) Reboot       | Ctrl + Alt + Del |

## EDITING IN MS WORD 2010



### Teaching Objectives:

The objectives of this unit are to:

- Identify the parts of MS Word 2010
- Learn how to open MS Word, create a document, open and save a document.
- Learn and apply the short cut keys
- Differentiate between Cut / Paste and Copy / Paste

### Learning Outcomes:

After completing the unit, students will be able to:

- Identify the parts of MS Word 2010
- Open MS Word, create a document, open and save a document.
- Apply the short cut keys
- Differentiate between Cut / Paste and Copy / Paste

### Number of allocated periods: 4

#### Period 1:

Sample lesson plan for a 40- minute period

- Reading and explanation (20 minutes)

Explain the parts of MS Word 2010 and File tab.

- Classroom activity (15 minutes)

Type text and apply formatting text.

- Homework assignment (5 minutes)

Read the chapter.

#### Period 2:

- Reading and explanation (15 minutes)

Explain creating, saving, opening a document. Explain selecting text using mouse and keyboard.

- Classroom activity (20 minutes)

Type text and apply formatting text.

- Homework assignment (5 minutes)

Attempt Ex. D, E (1, 2) pg. 66

#### Period 3:

- Reading and explanation (15 minutes)

Explain deleting text, Undo and Redo, Copy / Cut and Paste.

- Classroom activity (20 minutes)



## Editing in MS Word 2010

Attempt Ex. B pg. 65. Practise the options.

- Homework assignment (5 minutes)

Attempt Ex. A pg. 64, Ex. C pg. 65

#### Period 4:

- Reading and explanation (10 minutes)

Explain Spell Check, Find and Replace.

- Classroom activity (25 minutes)

Practise the options.

- Homework assignment (5 minutes)

Attempt Ex. E (3, 4, 5) pg. 66

## EXERCISE-7

#### A. Tick (✓) the correct answer:

1. Which of the following would you do to select a word?  
a. Click on it \_\_\_\_ b. Double-click on it  c. Triple-click on it \_\_\_\_
2. Which key would you press to select till the end of the line?  
a. Shift + End  b. Shift + Home \_\_\_\_ c. Home \_\_\_\_
3. Which command will delete a word to the right of the cursor?  
a. Ctrl + Delete  b. Ctrl + Backspace \_\_\_\_  
c. Shift + Delete \_\_\_\_
4. The Undo button is present on the  
a. Quick Access toolbar  b. Status bar \_\_\_\_  
c. Ribbon \_\_\_\_
5. What type of mistakes are indicated by green wavy lines?  
a. Grammatical  b. Spelling \_\_\_\_  
c. None of these \_\_\_\_

#### B. Name the following icons:



Cut



Copy



Paste



Spelling and Grammar

**C. Fill in the blanks. Choose the word from the box:**

**Review Copy Ignore Cut Change Delete Redo**

1. Use the Delete command to remove text from a document.
2. The Redo command canceled the action of Undo command.
3. The Copy command is used to duplicate the selected text in a document.
4. The Cut command is used to shift the selected text in a document.
5. Spelling and Grammar command is a part of Review tab.
6. The Ignore button is clicked to ignore the spelling mistake.
7. You can replace a word in a document using the Change command.

**D. Match the columns:****Actions**

1. To select one line down
  2. To select till the beginning of the line
  3. To select till the beginning of the document
  4. To select a sentence
  5. To undo
  6. To cut the selected text
- | <b>Keyboard commands</b> |
|--------------------------|
| a. Ctrl + click          |
| b. Shift + Ctrl + Home   |
| c. Ctrl + Z              |
| d. Ctrl + X              |
| e. Shift + ↓ key         |
| f. Shift + Home key      |

**E. Answer these questions:**

1. What is editing?

Making changes to a document is called editing.

2. How can you select multiple lines of text using both mouse and keyboard?

To select multiple lines of text using mouse, move cursor to the beginning of the line, press the mouse button and drag till the end of the multiple lines. To select multiple lines of text using keyboard, move cursor to the beginning of the line and then press Shift + ↓ key.

3. How do you copy a paragraph?

To copy a paragraph, move cursor to the beginning of the paragraph and select the entire paragraph. Press Ctrl + C to copy the paragraph to the Clipboard. Move cursor to the new location and press Ctrl + V to paste the paragraph.

4. Write the difference between copying and moving text.

Copying text means making a duplicate of the selected text while moving text means that the selected text is removed from the original location and is moved to the new location.

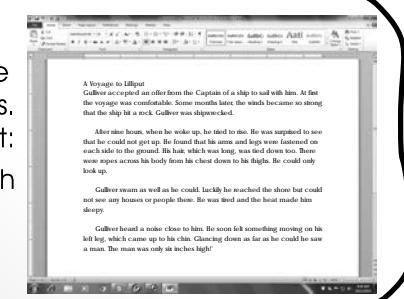
5. How do you correct a spelling error while typing?

To correct a spelling error while typing, right click on the word and choose the correct spelling from the list that pops up on the screen.

**Activity****Do the following activities:**

Here is a small portion from the popular tale of Gulliver's Travels. Create the following document:

1. Move the second paragraph before the last paragraph.
2. Check and correct spelling errors, if any.



**Activity / Test sheet based on Unit 7**

1) Answer the following questions.

a. What kind of software is MS Word?

Ans. MS Word is a word processor.

b. List the steps needed to create a document.

Ans. Click on File tab.

Click on New.

Click on Blank Document.

Click on Create.

c. Write purpose of Undo and Redo commands.

Ans. Redo command is used to repeat the previous action.

Undo command is used to cancel the last action.

d. Write the difference between Cut / Paste and Copy / Paste.

Ans. In Cut / Paste, the selected text is removed from the original location and is pasted at the new location.

In Copy / Paste, the selected text remains at the original location and its copy is pasted at the new location.

e. Write short cut key for the following tasks:

a. Spelling & Grammar	F7
b. Select entire document	Ctrl + A
c. Save a document	Ctrl + S
d. Open a document	Ctrl + O
e. Close a document	Ctrl + W or Alt + F4

2) Let the students practise all options and ask them to type a letter to their friend / mother / father / sister / brother, and edit it.

**Teaching Objectives:**

The objectives of this unit are to:

- Identify the parts of MS PowerPoint screen
- Learn how to create a blank presentation, save and open an existing presentation, exit PowerPoint.
- Learn how to add text and pictures in a presentation
- Learn how to duplicate, move and delete text in a presentation

**Learning Outcomes:**

After completing the unit, students will be able to:

- Identify the parts of MS PowerPoint screen
- Create a blank presentation, save and open an existing presentation, exit PowerPoint,
- Add text and pictures in a presentation
- Duplicate, move and delete text in a presentation

**Number of allocated periods: 4****Period 1:**

Sample lesson plan for a 40- minute period

- Reading and explanation (35 minutes)

Identify the parts of MS PowerPoint screen, how to exit PowerPoint.

- Homework assignment (5 minutes)

Attempt Ex. D (1, 2) pg. 81

**Period 2:**

- Reading and explanation (15 minutes)

Explain creating a blank presentation, adding text and slides, saving presentation.

- Classroom activity (20 minutes)

Let the students create a blank presentation and work independently. Attempt activities given on pg. 82.

- Homework assignment (5 minutes)

Attempt Ex. A pg. 80 and Ex. C pg. 81

**Period 3:**

- Reading and explanation (10 minutes)

Explain opening a presentation, adding pictures, working with text, deleting slides.

- Classroom activity (25 minutes)

Let the students work on the options learnt in class. Attempt activities given on pg. 82.

- Homework assignment (5 minutes)

Attempt Ex. B, D (3, 4) pg. 81

#### **Period 4:**

- Reading and explanation (15 minutes)

Explain duplicating, moving and deleting text in a presentation, viewing slide show.

- Classroom activity (20 minutes)

Let the students work on the options learnt in the class. Attempt the activities given on pg. 82.

- Homework assignment (5 minutes)

Attempt Ex. D (5, 6) pg. 82

## EXERCISE-8

#### **A. Tick ( ✓ ) the correct answer:**

1. Which tab opens the backstage view?

- a. File  b. Home \_\_\_\_\_ c. Insert \_\_\_\_\_

2. Which of the following are boxes for text and pictures on a slide?

- a. Tabs \_\_\_\_\_ b. Placeholders  c. Zoom slider \_\_\_\_\_

3. Where is the status bar present on a PowerPoint screen?

- a. top \_\_\_\_\_ b. bottom  c. left \_\_\_\_\_

4. Which of the following means close-up view?

- a. Zoom in  b. Zoom out \_\_\_\_\_ c. None of these \_\_\_\_\_

5. Which key should be pressed to run a slide show?

- a. F1 \_\_\_\_\_ b. Tab \_\_\_\_\_ c. F5

#### **B. Match the columns:**

- |  |   |
|--|---|
| 1.  | a. Reading view                         |
| 2.  | b. to run slide show from beginning     |
| 3.  | c. to close a presentation              |
| 4.  | d. displays the backstage view          |
| 5.  | e. to run slide show from current slide |

#### **C. Write True or False:**

1. MS Office is a part of MS PowerPoint. False

2. The Ribbon contains many tabs. True

3. The text placeholder is used to write text on a slide. True

4. We cannot add pictures on a slide. False

#### **D. Answer these questions:**

1. What is a presentation?

A presentation is an interesting way of describing something to an audience.

2. Name different components of PowerPoint screen.

Title bar, Ribbon, Tabs, Quick Access Toolbar, control buttons, Status bar.

3. What is the use of zoom slider on the status bar?

Zoom slider is dragged to zoom in and zoom out the slide.

4. How do you add a slide in a presentation?

Slides can be inserted using the following steps:

Click on New Slide button on Home tab.

Select the slide of your choice.

The new slide is displayed in Slides tab and Slides pane.

**5. How do you cut and paste text in a presentation?**

Given below are the steps needed to cut and paste text in a presentation.

1. Select the text you want to move.
2. Place the mouse over the text and drag it to the destination.
3. Release the mouse button.
4. The text will move to the desired location.

**6. Write the steps to save a presentation.**

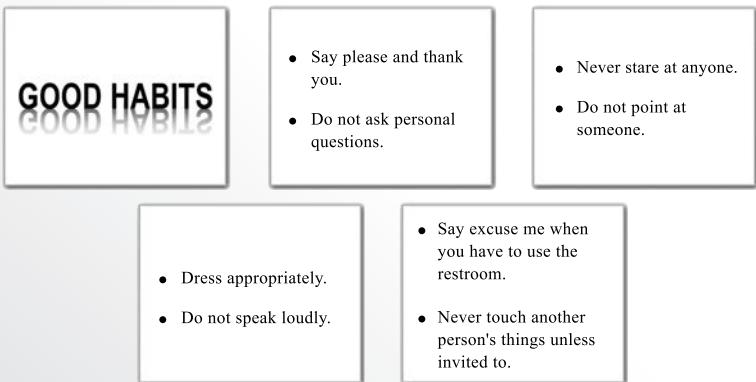
Given below are the steps needed to save a presentation.

1. Click on File tab.
2. Click on Save option.
3. Type a file name in the Save As dialog box.
4. Click on Save button.

**Activity**

**Do the following activities.**

1. Create a slide show on Good Habits. Use the text given below.



2. Create a PowerPoint Presentation on the topic 'Pakistan - Our Motherland'.

**Activity / Test sheet based on Unit 8**

- 1) Answer the following questions.

- a. Describe purpose of the following parts of MS PowerPoint screen.

**a. Title bar**

Title bar is located at the top of the window and displays the name of file and the program.

**b. Quick Access Toolbar**

Quick Access toolbar contains icons of frequently used commands.

**c. Status bar**

Status bar is located at the bottom of the window and displays the slide number and total number of slides.

**d. Zoom slider**

Zoom slider is used to zoom in (close up) and zoom out (reduced view).

**b. State the types of view available in PowerPoint.**

Ans. The types of view are :

Normal View, Slide Sorter view, Reading view and Slide show view.

**c. Write short cut keys to perform the following tasks:**

Add a new slide	Ctrl + M
Copy	Ctrl + C
Cut	Ctrl + X
Paste	Ctrl + V
Left align	Ctrl + L
Right align	Ctrl + R
Center align	Ctrl + E
Justify	Ctrl + J
Open	Ctrl + O

- 2) Prepare a screen as on pg. 68 and ask the students to name the parts of MS PowerPoint window.

- 3) Prepare presentation on the following topics:

- a. My class / My school

- b. Parts of a computer



## THE INTERNET



### Teaching Objectives:

The objectives of this unit are to:

- Explain Internet and its uses
- Define the important terms related to the Internet
- Learn how to browse the Internet

### Learning Outcomes:

After completing the unit, students will be able to:

- Explain Internet and its uses
- Define the important terms related to the Internet
- Browse the Internet

### Number of allocated periods: 4

#### Period 1:

Sample lesson plan for a 40- minute period

- Reading and explanation (35 minutes)

Explain Internet and its uses.

- Homework assignment (5 minutes)

Attempt Ex. B (1, 3) pg. 89

#### Period 2:

- Reading and explanation (35 minutes)

Explain the important terms related to the Internet.

- Homework assignment (5 minutes)

Attempt Ex. B (2, 4), pg. 89

#### Period 3:

- Reading and explanation (35 minutes)

Explain ISP, starting Google Chrome.

- Homework assignment (5 minutes)

Attempt Ex. A pg. 89

#### Period 4:

- Reading and explanation (35 minutes)

Explain browsing the World Wide Web, Wi-Fi.

- Homework assignment (5 minutes)

Attempt Ex. B (5, 6) pg. 89



## EXERCISE-9

### The Internet

#### A. Tick (✓) the correct answer:

1. When many computers are interconnected, it is called
  - a. Networking ✓
  - b. Interconnecting \_\_
  - c. Webbing \_\_
2. Wi-Fi uses
  - a. Radio waves ✓
  - b. Sound waves \_\_
  - c. Both of the above \_\_
3. A fast and cheap method of communication is
  - a. Air-mail \_\_
  - b. Sea-mail \_\_
  - c. E-mail ✓
4. PTCL is an
  - a. Internet service provider ✓
  - b. Marketing company \_\_
  - c. I don't know \_\_

#### B. Answer the following questions:

1. Write names of any three modes of communication that you use.

The three modes of communication are speaking, listening, reading, writing, gestures.

2. What are the three things required for communication?

The three things required for communication are a computer, a telephone line and a device which connects computer with telephone line (modem or router).

3. What is internet? Write any three uses of Internet.

Internet is a network that links computers across the world by satellite and telephone.

The uses of Internet are:



## The Internet

- ✓ Communication: We can communicate with anyone across the globe through Internet.
- ✓ Information: People can search for any information using Internet in a fraction of second.
- ✓ E-banking: Internet has brought a revolution in banking system.
- ✓ Reservation: we can buy railway or airline ticket very easily using Internet.

**Note for teachers:** Students can write any point given on pgs. 83-84.

### 4. What do you need to connect to the internet?

To connect internet we need a computer, a telephone line and a device which connects computer with telephone line (modem or router) and internet service provider (ISP).

### 5. What is World Wide Web?

World Wide Web is a collection of various websites. These sites collectively form a structure similar to a spider's web.

### 6. Write one line each on:

#### a. Browser

A web browser is a software that is used to access information on the Internet.

#### b. Wi-Fi

Wi-Fi stands for Wireless Fidelity. Wi-Fi refers to wireless network connections.

## Activity / Test sheet based on Unit 9

### 1) Expand the following:

- |             |                               |
|-------------|-------------------------------|
| i) Internet | - International Network       |
| ii) ISP     | - Internet Service Provider   |
| iii) URL    | - Uniform Resource Locator    |
| iv) http    | - Hypertext Transfer Protocol |
| v) www      | - World Wide Web              |



## The Internet

### 2) Answer the following questions.

#### a. Define the following :

##### i) Server

Server is a computer that controls and monitors the flow of messages.

##### ii) Web page

The page on the Internet which has information is called a web page.

##### iii) Website

A collection of one or more web pages is called a website.

##### iv) Home page

The first page of a website is called home page.

##### v) Window

A screen that displays a web page.

##### vi) URL

A unique website address is called URL or Uniform Resource Locator.

##### vii) Hyperlink

A web page has many links to a topic which may be on the same page or on a different document. These links are called hyperlinks.

#### b. Name a few web browsers.

Ans. Opera, Safari, Google Chrome, Mozilla Firefox, Internet Explorer are a few web browsers.

#### c. Name a few ISPs.

Ans. A few ISPs are PTCL, Qubee, Wateen, wi-tribe etc.

#### d. Name the most commonly used web browser.

Ans. The most commonly used web browser is Google Chrome.

## MORE FUN WITH TUX PAINT



### Teaching Objectives:

The objectives of this unit are to:

- Identify the parts of Tux Paint
- Draw and colour different shapes

### Learning Outcomes:

After completing the unit, students will be able to:

- Identify the parts of Tux Paint
- Draw and colour different shapes

### Number of allocated periods: 4

#### Period 1:

Sample lesson plan for a 40- minute period

- Reading and explanation (10 minutes)

Explain the parts of Tux Paint window and Stamp tool.

- Classroom activity (25 minutes)

Attempt activity pg. 91, the steps explained in Stamp tool and activity on pg. 92.

- Homework assignment (5 minutes)

Download and practise Tux Paint at home.

#### Period 2:

- Reading and explanation (10 minutes)

Explain Magic tool.

- Classroom activity (25 minutes)

Attempt activities pg. 94.

- Homework assignment (5 minutes)

Attempt Ex. A, C (1, 2, 3) pg. 97

#### Period 3:

- Reading and explanation (10 minutes)

Explain creating a slide show.

- Classroom activity (25 minutes)

Attempt activity pg. 95.

- Homework assignment (5 minutes)

Attempt Ex. B pg. 97

#### Period 4:

- Classroom activity (35 minutes)

Practise Tux Paint.

- Homework assignment (5 minutes)

Attempt Ex. C (4) pg.97



## EXERCISE-10

### More Fun with Tux Paint

#### A. Tick (✓) the correct answer:

1. Which tool displays different styles of brushes?  
a. Eraser \_\_\_\_ b. Paint  c. Text \_\_\_\_
2. To erase a drawing, we use the  
a. Text tool. \_\_\_\_ b. Eraser tool.  c. Quit tool. \_\_\_\_
3. Which of the following is a magic effect?  
a. Books \_\_\_\_ b. Bricks  c. Burger \_\_\_\_
4. Which of the following is used to see all the scenes in a sequence?  
a. Slide show  b. Magic show \_\_\_\_ c. Talk show \_\_\_\_

#### B. Write True or False:

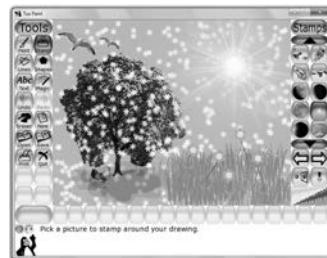
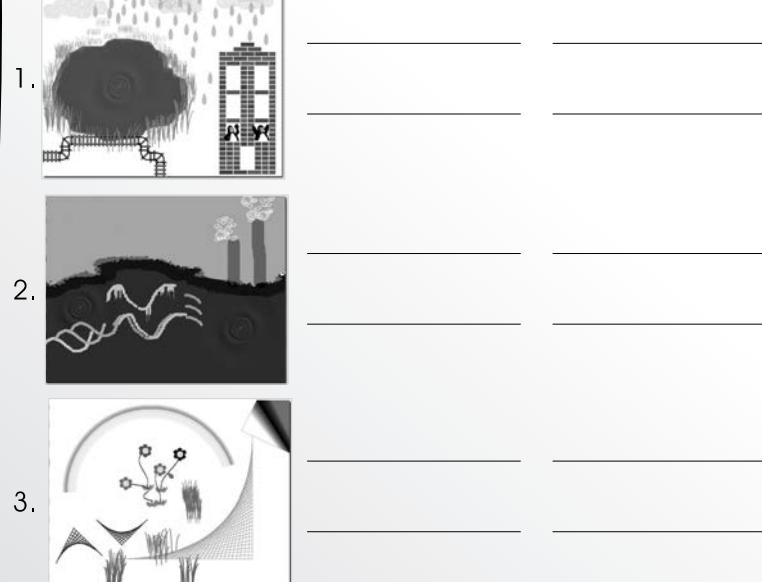
1. You can type on the drawing canvas using the Magic tool. **False**
2. You can add a picture using the Stamp tool. **True**
3. All magic effects work on a blank canvas. **False**
4. We can apply only one magic effect using the Magic tool. **False**

#### C. Answer these questions:

1. Name any three magic effects in Tux Paint.  
Bricks, Grass, Foam, Rails, Flower, Rain, Rainbow
2. Which tool is used to type text on the drawing canvas?  
Text tool is used to type text on the drawing canvas.
3. Name two magic effects that do not work on a drawing canvas.  
Chalk, Drip and Waves do not work on a drawing canvas.
4. Which button lets you see the slide show of different scenes?  
Play button lets you see the slide show of different scenes.

**Activity****Do the following activities:**

1. Draw a similar picture in Tux Paint using different tools.
2. Draw a scene of your choice using the Paint, Stamp and Magic tools. Apply magic effects such as String edges, Snow balls and Smudge on the scene.
3. Use different tools in Tux Paint to draw a park scene.

**Name any four magic effects used in each picture.**

Ask students to insert different stamps and draw different scenes.

- Life under the sea
- Zoo
- Scenery etc.