

Teacher's Manual

Computer

with AI



- A. 1. (c); 2. (b); 3. (b); 4. (c);
B. 1. dumb; 2. electricity; 3. accurate; 4. results; 5. Input;
C. 1. T; 2. T; 3. F; 4. F; 5. T;
D. 1. **Minicomputers**

These are more capable machine and are used to handle multiple complex jobs in big organizations like Banks, Railways, etc.

Mainframe Computers

These machines are even more powerful than minicomputers and are mainly used to provide services to the large number of computers connected together. These are also used for scientific research purpose.

2. Depending upon their speed and memory size, computers are classified into the following four main groups :
- Microcomputers
 - Mainframe Computers
 - Minicomputers
 - Supercomputers

3. Limitations of Computer

1. It is a dumb machine i.e. it cannot do anything on its own, if no command is given.
 2. Computers cannot take any decisions on its own.
 3. Computers, unlike humans, cannot learn by experience.
 4. It works on electricity. Computer works only when the electricity is available.
4. 1. Computers work very fast. They can do billions of calculations in a second.
2. Computers give accurate results every time if the user gives correct input to it.
 3. Computers can be used for doing a variety of tasks. So these are called multipurpose machines.
 4. Computers can store a very large amount of data.

5. All computers follow the stages of Input → Process → Output.

- ❖ The INPUT stage involves putting information into the system.
- ❖ The PROCESS stage involves doing something with the information.
- ❖ The OUTPUT stage involves displaying results.



Above mentioned steps together form the Input-Process-Output (IPO cycle).

2

Hardware and Software

- A. 1. (c); 2. (b); 3. (c); 4. (a);
B. 1. application; 2. hard copy; 3. CRT, LCD; 4. input; 5. data;
C. 1. F; 2. T; 3. T; 4. T; 5. T;
D. 1.

System	Applications
1. It control and operate the hardware.	They are installed and used by us.
2. Windows are operating system.	MS Paint, MS Office etc. are of it.
3. They help the application software to perform their tasks.	Software cannot work without hardware (system software).
4. Hardware can not be repaired if it is damaged.	Software is reinstalled if it is damaged.

2. Software is a set of programs (or commands) that tells the computer hardware how to operate.

3. Hard Disk

Hard disk drives are used to store operating systems, software and working data. It is located inside the system unit. All the work you do on the computer, by default gets stored in the hard disk.

CD (Compact Disc)

The Compact disc or CD is bright round disc that can store the information like video, audio, text, images, etc. We need a CD Drive to read data from a CD and a CD writer to write data information on a CD.

4. Input devices are used to enter data and give instructions to a computer.

Some commonly used input devices are keyboard, mouse, microphone and scanner.

Keyboard

A keyboard has keys on it. We press these keys to input words, numbers and characters.


Mouse

A mouse has two buttons. There is a scroll wheel between the buttons. We use a mouse to point at, select and move objects on the monitor.

5. Hardware refers to all those physical parts of a computer that we can see and touch.

3

Introduction to Window 10

- A. 1. (b); 2. (a); 3. (c); 4. (a);
B. 1. Start; 2. Wallpaper; 3. Taskbar; 4. icons; 5. operating;
C. 1. F; 2. T; 3. T; 4. F; 5. T;
D. 1. Taskbar is a long horizontal bar at the bottom of the Desktop. It has the Start button  on the extreme left side followed by Search box. The middle section of the bar shows buttons with a label for each open application and allows us to quickly switch between them.

The right side of the taskbar is known as Notification Area, which includes a clock and a group of icons that provide status and notifications about updates, network connectivity, incoming mails, battery, volume, etc. The Show desktop button is present on the extreme right of the taskbar. Click on this button to minimize all the open windows and view the Desktop.

2. It allows you to search information by simply speaking aloud. Click on the microphone button next to the search bar. Say something about what you want to search for. You will get the search results.
3. The background image of the desktop is called wallpaper.
4. The small labelled pictures or symbols present on the Desktop are called icons. These icons are used to open specific programs or documents.
5. A computer has a special set of programs which manages all the jobs of a computer and makes it run. This is known as Operating system.
Windows, Mac, Linux, etc., are some of the most popular Operating system.

4

Choosing your Windows 7 V/s Windows 10

A. 1. (b); 2. (b); 3. (c); 4. (b)

B. 1.

Features	Windows 7	Windows 10
Look and feel	Classic design with a simple layout	Modern design with colourful tiles
Start Menu	Traditional	Updated Start menu with live tiles.
Performance	Great for older computers.	Optimized for newer devices.
Support	No longer receives updates (2020)	Regular updates for security and features.

2. Windows 7 has doesn't get updates anymore, so it's less safe than Windows 10, which gets regular updates.
 3. Windows 7 works well on older computers, but Windows 10 is better for new ones.
 4. Windows 10 has fun features like Cortana and virtual desktops, while Windows 7 has simpler games.
- C. 1. F; 2. T; 3. T; 4. T;

- A. 1. (c); 2. (c); 3. (a); 4. (b);
 B. 1. Rotate; 2. zoom in; 3. top left; 4. Resize and Skew; 5. select;
 C. 1. T; 2. F; 3. T; 4. F; 5. F;

D. 1.

Rectangular selection	Free-form selection
In this selection, we can select the rectangular part of the picture.	In this selection, we can select an irregular part of the picture.

2. Follow these steps to resize /skew a picture.

Step 1: Select the drawing by dragging the mouse over it.

Step 2: Select the Resize option in the Image group on the Home tab.

Step 3: Now specify the Resize values in 'Percentage' or 'Pixels' for both Horizontal and Vertical boxes.

Step 4: Specify the Skew value in degrees in the Horizontal box to stretch the image horizontally and in the vertical box to stretch the image vertically.

Step 5: Click on OK.

3. The Rotate option is used to change the angle and flip the whole picture or a part of it. The Flip Vertical option turns the picture upside down and the Flip Horizontal option gives a mirror image of the picture.
4. You can select an area of an image and clear everything outside this area. This is called cropping an image.
5. The Select tool is used to select a picture or any part of it.

- A.** 1. (a); 2. (c); 3. (b); 4. (a);
- B.** 1. close; 2. Tabs; 3. Ctrl+S; 4. Status; 5. two;
- C.** 1. T; 2. F; 3. T; 4. F; 5. F;
- D.** 1. **Window Control Buttons** : There are three buttons on the top right corner of the window.
- ❖ The Minimize button is used to hide a window from the desktop. It keeps the program running in the background and displays its icon on the Taskbar. If you want to bring it back to the normal size, click on its icon.
 - ❖ The Restore down button makes the screen smaller.
 - ❖ The Close button is used to close the MS Word window.
2. To print a document,
- Step 1: Click on the File tab and select the Print option.
- Step 2: A preview of the document appears on the right side.
- Step 3: Now, click on the Print button.
3. 1. Title bar, 2. Quick Access Toolbar, 3. Ribbon, 4. Window Control Button, 5. File Tab, 6. Document Area, 7. Rulers, 8. Status Bar, 9. Zoom slider, 10. Scroll Bar
4. To save your document in MS Word, follow these steps.
- Step 1: Click on the File tab.
- Step 2: From the Backstage view, select the Save option.
- Step 3: The Save As screen appears on the right side. Click on the Browse button to choose the location where you want to save.
- Step 4 : Type the name of the document in the File name box.
- Step 5: Click on Save. The file will be saved with the extension .docx.

5. ❖ Type letters, stories, reports, etc in a simple way.
 - ❖ Make changes in the text while typing and after typing also.
 - ❖ Give presentation look to the text using different colours, styles and effects.
 - ❖ Add pictures to document.
 - ❖ Make the document error free using spelling and grammar feature.

7

Let's Draw Paint with Tux Paint


- A. 1. (b); 2. (b); 3. (c); 4. (c);
- B. 1. fun; 2. icon; 3. canvas; 4. New;
- C. 1. T; 2. F; 3. T; 4. F;
- D. 1. The interface has a toolbar, a drawing, click the New Tool and double-click a picture.
 2. To insert a new drawing in Tux paint:
 - Step 1.** Open Tux paint.
 - Step 2.** Click New to create a blank drawing or select a template.
 - Step 3.** Use the tools (Brush, shapes, stamps, etc.) to draw.
 - Step 4.** Click save to store your drawing.
 3. To colour the drawing, follow the given steps:
 - Step 1. Click on the **Magic Tool** from the toolbar.
 - Step 2. Select fill magic effect from the selector.
 - Step 3. Select the colour from the Colour box.
 - Step 4. Click inside the area to fill colour in it.
 4. It is used to erase the whole or any part of a picture.

When we select **Eraser Tool**, the selector shows different shapes and sizes of the eraser. Choose the one you need.

- A.** 1. (a); 2. (b); 3. (b); 4. (c); 5. (b)
- B.** 1. F; 2. T; 3. T; 4. F; 5. T;
- C.** 1. Artificial Intelligence means teaching machines to be smart. Just like we learn from our teachers, machines can learn too, but instead of books, they learn from data and instructions.
2. AI makes many things easier. From using your phone to getting directions, AI is everywhere to assist us. It can even help clean your house with a robot vacuum cleaner!
3. ASIMO is a special robot made by Honda to help people with everyday tasks. It can walk, run, climb stairs, and even carry things, just like a human.
4. Some people worry that AI and robots might take over certain jobs, like factory work, where machines can do tasks faster and without breaks. This could mean fewer jobs for humans in those areas.
5. Unlike humans, AI never needs sleep or rest. It can work all the time, even when we are asleep like answering customer service questions or monitoring things at night.
- D.** 1. problems, decisions; 2. emotions; 3. humans; 4. Honda
5. Oceans.

Periodic Test Paper-1

- A.** 1. (c); 2. (b); 3. (b); 4. (b); 5. (b); 6. (b)
- B.** 1. zoom in; 2. start; 3. operating; 4. input; 5. dumb;
6. results
- C.** 1. F; 2. F; 3. T; 4. T; 5. T; 6. F
- D.** 1. You can select an area of an image and clear everything outside this area. This is called cropping an image.

2. Taskbar is a long horizontal bar at the bottom of the Desktop. It has the Start button  on the extreme left side followed by Search box. The middle section of the bar shows buttons with a label for each open application and allows us to quickly switch between them.

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3. The small labelled pictures or symbols present on the Desktop are called icons. These icons are used to open specific programs or documents.
4. Software is a set of programs (or commands) that tells the computer hardware how to operate.
5. Hardware refers to all those physical parts of a computer that we can see and touch.
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E. Do yourself

Periodic Test Paper-2

- A. 1. (b); 2. (c); 3. (a); 4. (a); 5. (c); 6. (a)
- B. 1. two; 2. Ctrl+S; 3. Eraser; 4. clear; 5. fun
- C. 1. T; 2. T; 3. F; 4. F; 5. T; 6. F
- D. 1. ❖ Type letters, stories, reports, etc in a simple way.
❖ Make changes in the text while typing and after typing also.
❖ Give presentation look to the text using different colours, styles and effects.
❖ Add pictures to document.
❖ Make the document error free using spelling and grammar feature.
2. 1. Title bar, 2. Quick Access Toolbar, 3. Ribbon, 4. Window control Button, 5. File Tab, 6. Document Area, 7. Rulers, 8. Status Bar, 9. Zoom slider, 10. Scroll Bar
3. Artificial Intelligence means teaching machines to be smart. Just like we learn from our teachers, machines can learn too, but instead of books, they learn from data and instructions.
4. The Left command is used to turn the head of the turtle towards the left side by a given angle.
5. To insert a new drawing in Tux paint:
Step 1. Open Tux paint.
Step 2. Click New to create a blank drawing or select a template.
Step 3. Use the tools (Brush, shapes, stamps, etc.) to draw.
Step 4. Click save to store your drawing.
6. Unlike humans, AI never needs sleep or rest. It can work all the time, even when we are asleep like answering customer service questions or monitoring things at night.
- E. Do it yourself.