

1. Hardware and Software

ASSESS YOURSELF

1. a. (iii) b. (ii) c. (iii) d. (iii)
2. a. F b. F c. T d. F
3. a. (iii) b. (i) c. (ii) d. (iv)
4. a. The CPU is located inside the CPU box/cabinet of a computer.
b. The devices that display the results of processing done by the CPU are called output devices.
c. Some storage devices are Hard disk, Compact disc (CD), Digital Versatile disc (DVD), Pen drive, etc.
d. A computer works in three steps: Input → Process → Output (IPO). This is also called the IPO cycle. Here,
 - Input means the data and instructions entered into the computer.
 - Process means conversion of data into information.
 - Output means the result achieved after processing of data.
5. a. Raj should use Word to write a story.
b. Zara should use joystick to control the game.
c. The best output device would be a Plotter.
d. The appropriate application software for this task would be PowerPoint.
e. The output device being used is Speakers.

2. Windows 11—An Introduction

ASSESS YOURSELF

1. a. (iii) b. (i) c. (i) d. (ii)
2. a. F b. F c. T d. F
3. a. (iii) b. (ii) c. (i) d. (iv) e. (v)

4. a. Any two components of the taskbar are:
- (i) Start button: It appears in the middle of the taskbar in Windows 11. When we click on it, a menu appears known as the Start Menu.
 - (ii) Notification area: It is located at the right corner of the Taskbar. It displays time, date, Internet connection, etc.
- b. Right-click on the desktop and choose Personalize option. Click on the Background option. Select any picture.
- c. (i) This PC
(ii) Recycle Bin
5. a. The steps to change the desktop background are:
- 1 Right-click on the desktop and choose Personalize option.
 - 2 Click on the Background option.
 - 3 Select any picture.
- After choosing a picture, the background will change automatically.
- b. You would use the Search button on your computer to find the document by typing its name.
- c. Riya can use the Taskbar to quickly switch between active programs.
- d. Aman should use the Clock on the Taskbar to change the time manually.
- e. Meera can move the taskbar to the left by following these steps:
- 1 Right-click on the Taskbar.
 - 2 Click on the Taskbar settings.
 - 3 Select the Taskbar behaviors.
 - 4 Select Left or Center option under the Taskbar alignment.

3. Word 2021—An Introduction

ASSESS YOURSELF

- | | | | |
|-----------------|-----------------------------|---------------|-------------|
| 1. a. (i) | b. (ii) | c. (ii) | d. (iii) |
| e. (ii) | f. (i) | g. (iii) | h. (ii) |
| 2. a. letters | b. document area | c. words | d. vertical |
| e. keyboard | f. mouse | g. redo, undo | h. original |
| 3. a. T | b. F | c. T | d. F |
| e. F | f. T | g. F | h. F |
| 4. a. Word Wrap | b. Insertion Point (cursor) | | |
| c. Close button | d. File | | |



5. The Undo command is used to cancel the last command.
Redo command is used to reverse the action of the last Undo command.
6.
 - a. Ctrl + S is the key combination used to save a document.
 - b. Click on the File Tab. Select the Print option, and then click on the Print button.
 - c. Two components of the Word 2021 window are:
 - Title Bar
 - Ribbon
 - d. The key combination used to select a line above the cursor is Shift + Up Arrow.
 - e. Copying text means the selected text will remain at its original place as well as the place where it is to be pasted.
 - f. Select the text and click on Home tab.
Click on Cut command and Go to the required place where you want to paste.
Click on Paste command.
 - g. The Undo and Redo commands are located on the Quick Access Toolbar in Word 2021.
7.
 - a. Select a line below the cursor.
 - b. Select a character to the right of the cursor.
 - c. Select the entire document.
 - d. Select a line above the cursor.
8.
 - a. Mansi will find the Save option under the File tab.
 - b. Hemant will type his text in the Document area.
 - c. Sonam should click on the File tab, then select Close from the options to close the document.
 - d. Aman should click on Cancel to return to his document without closing it.
 - e. Rohan should press the Backspace key to delete the letter to the left of the blinking line.
 - f. Sarah should copy her name and paste it wherever needed in the project. She can use the Ctrl + C (copy) and Ctrl + V (paste) keys to make the task easier.

4. Exploring Digital Art

ASSESS YOURSELF

- | | | | | |
|--------------------|----------|---------------------|----------|--------|
| 1. a. (ii) | b. (iv) | c. (iv) | d. (iii) | e. (i) |
| 2. a. F | b. F | c. T | d. F | e. T |
| 3. a. Drawing area | b. Tools | c. Vertical toolbar | d. Save | |
| e. Calligraphy | | | | |

4. a. Sketchpad is an online drawing tool that helps you create artwork on your computer.
- b. Click on the Fill tool and click on the Choose Fill Editor option to select the fill type. Select the Pixel Fill tool. Click on the Set Fill option.
- Select a colour of your choice and click on the drawing to apply the colour.
- c. Zoom tool is used to zoom in for viewing small details or zoom out to see the entire picture.
- d. Select tool is used to move, rotate, scale, delete and reorganise the layers of a drawing.
- e. Two freehand tools are the Pencil Tool and the Brush Tool.
- f. The canvas or drawing area is a blank white area where you can draw, sketch, create shapes and experiment with different colours and designs.
- g. Vector Fill lets you add background, colours, patterns or gradients.
- Pixel Fill lets you colour hand-drawn pictures made using the pencil or brush tool.
- h. Click on the New button and select the size of the canvas from the Choose Preset Size down arrow. Select the style of canvas and click on the Create button.
- i. (i) The Shapes icon is used to draw shapes such as stars, squares and circles.
- (ii) The Zoom icon is used to zoom in for viewing small details or zoom out to see the entire picture.
- (iii) The Clipart icon is used to insert ready-made pictures, shapes and illustrations into a drawing.
- (iv) The Fill icon is used to fill areas of a drawing with colours or patterns.
5. a. Rohit can use the Eraser tool to remove the extra window from his drawing.
- b. Gunjan can use the Fill tool to add colours to the tree and make it look beautiful.
- c. ① Click on the Export tool.
- ② Click on the Save button to save your drawing.
- ③ Select the PNG format.
- ④ Click on the Download button.
- d. Prachi should use the Shape tool, which allows her to draw different shapes such as stars, squares, and triangles.
- e. Neha should use the Fill tool and follow these steps:
- ① Click on the Fill tool.
- ② Click on the Choose Fill Editor option to select the fill type.
- ③ Select the Pixel Fill tool.
- ④ Click on the Set Fill option.
- ⑤ Select a colour of your choice to fill the flower.
- ⑥ Click on the drawing to apply colour.



5. Fun with Emoji Creation

ASSESS YOURSELF

- (i)
 - (iii)
 - (ii)
 - (iv)
- Gradient
 - Designs
 - Creative
 - Clipart
- T
 - F
 - F
 - T
- Canvas
 - Duplicate
 - Texture
 - Layers
- A gradient fill is when two or more colours smoothly change from one to another. Texture fill uses patterns or designs that make something look like it has a certain surface or feeling.
 - You can use the Duplicate option to make a copy of a shapes.
 - Click on the Clipart tool and click on the Choose Graphic down arrow.
Type the name of the accessory in the search bar and select the accessory you want to use for your emoticon. Resize the accessory and drag it in the right place.
 - Go to the Sketchpad website and start a new project and click on the Star shape. Click on the Choose Shape option and select the Ellipse shape from the available options. Click on the Fill option and click on the Color option and select any colour you desire. Repeat previous two steps for the Outline option to choose the colour for the outline of your shape. Drag the mouse to draw an ellipse in the drawing area or canvas.
- Aarav should click on the Fill option and select a colour from the colour palette to fill the inside of the ellipse.
 - Meera should use the Outline option to add a coloured border around her emoticon's face.
 - Sneha can use the Layers tool to adjust the placement of the accessories. She can move them up or down in the layer stack and reposition them on the face.
 - Rohan can use the Clipart tool to easily add stylish glasses to his emoticon's face.
 - Pooja should apply a Gradient effect to make the emoticon look more lively and three-dimensional.

6. Pivot Animator

ASSESS YOURSELF

- (i)
 - (ii)
 - (i)

5. a. E-mail is an online communication system. E-mail enables us to send and receive messages to people anywhere around the world within a matter of seconds.

b.

| Web page | Website |
|---|---|
| It is a digital document on the Internet. | It is a collection of related web pages that provide information. |

c. The internet is a vast network of computers connected together, which makes communication between them possible. The term 'Internet' is derived from the word internetworking. It connects millions of computers across the world by means of cables, telephone wires or certain wireless media of communication.

- d. i. E-mail
ii. Computer System
iii. Google Chrome

6. a. Web browser

b. Address bar

c. Riya is using E-mail to send a message to her friend.

d. Entertainment allows Simran to download and watch videos at her convenience.

e. Anuj may be missing a modem.

8. Introduction to Scratch Programming

ASSESS YOURSELF

1. a. (i) b. (iii) c. (iii) d. (i)
2. a. block-based b. When c. Coding area d. Costumes
3. a. (iii) b. (ii) c. (iv) d. (v) e. (i)
4. a. Scratch is a visual programming language used to create computer animation, games and stories.
- b. Click on the File menu. Select the Load from your computer. Select the file you want to open. Click on the Open button.
- c. Click on the Choose a Sprite button. Click on a sprite to add it to your project.
- d. Click on the Choose a Backdrop button. Select a backdrop you want to use.
5. a. Click on the Open button. Click on the File menu.

2

Select the Load from your computer.

3

Select the file you want to open.

- b. Green flag
- c. The When green flag clicked block is responsible for starting the script when the player clicks the green flag.
- d. Riya should increase the value in the move steps block and change it to more steps.
- e. Nisha should select Leave option to close Scratch immediately without saving her project.

9. Introduction to Robotics

ASSESS YOURSELF

1. a. (iii) b. (ii) c. (ii) d. (ii) e. (iii)
2. a. robotics b. Sensors c. accurate d. decisions
3. a. The following are the characteristics of robots:
 - Consistency: Robots can work tirelessly.
 - Speed: They work at the same speed from beginning to end without taking any breaks.
 - Safety: They are used in places and areas considered dangerous for humans.
 - Accomplishment: Humans tend to make mistakes but robots are less likely to make errors.
- b. The branch of science and technology behind the design, construction, operation, application and manufacturing of robots is called robotics.
- c. • Controller: The controller, a built-in computer program, is like a brain; it controls the functions of a robot.
 - Sensor: Robots also have devices or sensors that tell them about their surroundings. These sensors act like the robot's eyes, nose, ears, skin, etc.
- d. (i) Goalkeeper (ii) Nao (iii) Mobile Robot
- e. AI or Artificial Intelligence is a type of technology that makes robots or machines act, learn and think like humans.
4. a. The robot will use its Actuator to move the box.
- b. Your friend is talking about the Daksha robot.
- c. The robot cannot take full care of the baby because it lacks artificial intelligence .
- d. Alexa was able to understand Rahul's request using artificial intelligence.
- e. Google Maps helped Nisha to reach her school on time.

