

Smart Coding Class 6

Chapter-1 Advance Features of PowerPoint 2016

A. Tick (✓) the correct option.

- | | |
|--------------------------|--------------------|
| 1. a. Audio | 2. b. Playback Tab |
| 3. b. Back Action Button | 4. a. Audio Files |

B. Fill in the blanks.

- | | |
|-------------|------------|
| 1. Insert | 2. webpage |
| 3. MP4, WMV | 4. F5 |

C. Answer the following questions.

1. Go to the Insert tab, click on Audio, choose Audio on My PC, select your file and click Insert to add the audio to your slide.
2. Select the slide, click the Insert tab, choose Video, then Video on My PC, select your video file and click Insert to add it to your slide.
3. Action buttons are shapes that perform specific actions, like going to another slide or opening a document, when clicked or hovered over with the mouse.
4. Go to File, click Print, under Settings choose Print Custom Range, enter the slide numbers you want to print and then click Print.

Chapter-2 More on Excel 2016

A. Tick (✓) the correct option.

1. c. Click it once
2. a. Below the Ribbon
3. b. Right-click on a row heading and select “Insert”

B. Fill in the blanks.

- | | |
|-------------|----------------------|
| 1. Ctrl + A | 2. Ctrl + Z |
| 3. BODMAS | 4. Insert Sheet Rows |

C. Write T for true and F for false statements.

1. True
2. False- You can definitely merge cells in Excel to create a larger cell.
3. False- Excel follows the BODMAS rule for performing calculations.
4. False- Ctrl + X is used for cutting data, not copying. Ctrl + C is for copying.

D. Answer the following questions.

1. Select the cell, go to the Home tab, find the Alignment group and click on Wrap Text. This makes the text in a cell appear on multiple lines if it's too long.
2. Merging cells is used to create a single larger cell by combining two or more cells. This is often done for formatting reasons, like setting up headers. You do it by selecting the cells, going to the Home tab and clicking Merge & Center in the Alignment group.
3. Select the cells, go to the Home tab, click on the Borders icon in the Font group and choose the type of border you want to apply from the drop-down menu.
4. Right-click on the row number, select "Row Height," and then enter the desired height. Alternatively, drag the bottom border of the row header to resize it.
5. Select the cells you want to move, cut them by pressing Ctrl + X, click where you want to place the data and then paste it using Ctrl + V.

Chapter-3 Formulas and Functions in Excel

A. Tick (✓) the correct answer.

- | | |
|--------------|-----------------|
| 1. b. Values | 2. b. Enter |
| 3. b. SUM | 4. a. A formula |

B. Answer the following questions in one word each.

1. MAX 2. F4 3. Range 4. Relative

C. Write T for true and F for false statements.

1. False- The AVERAGE function calculates the mean, not the total sum.
2. True
3. False- Formulas can perform multiple operations using operators and functions.
4. True

D. Answer the following questions:

1. Naming a cell range helps you refer to the cells more easily in formulas, making them simpler to understand and maintain.
2. The SUM function adds up all the numbers in a specified range, providing the total.
3. Click a cell, type an equals sign (=), followed by your formula and press Enter to see the result.
4. Absolute references remain constant no matter where they are copied in the workbook (e.g., \$A\$1), while mixed references lock either the row or the column, but not both (e.g., \$A1 or A\$1).

Chapter-4 Introduction to Adobe Animate CC

A. Tick (✓) the correct option.

1. c. Line tool 2. b. F6
3. c. Tools panel
4. b. To indicate a change in content for animation

B. Fill in the blanks.

1. 550 × 400 2. Timeline 3. Shift 4. F6

C. Write T for true and F for false statements.

1. False- Adobe Animate CC is used for creating animations, not PDFs.
2. True

3. False- The Lasso tool is used for freehand selection, not for drawing straight lines.
4. True

D. Answer the following questions.

1. Rectangle tool, Oval tool, PolyStar tool
2. Fill Color is the color inside the shape and Stroke Color is the color of the outline of the shape.
3. Right-click on the Timeline and choose 'Insert Frame' or press F5 to add more frames.
4. Keyframes are important because they define changes in the animation, helping to control the movement and appearance of objects over time.
5. Pressing the play button starts the animation, allowing you to view how it plays out on the timeline.

Chapter-5 Computer Viruses

A. Tick (✓) the correct answer.

- | | |
|---------------------------------|--------------------|
| 1. b. Malicious program | 2. a. Pen drives |
| 3. b. Block unauthorized access | 4. c. Trojan horse |

B. Fill in the blanks.

- | | | | |
|-----------|-----------|---------|------------|
| 1. damage | 2. remove | 3. know | 4. protect |
|-----------|-----------|---------|------------|

C. Answer the following questions.

1. Slow performance and unexpected pop-ups are common signs of a virus infection.
2. Pirated software often contains viruses and lacks proper security updates, making it risky.
3. Quarantine or delete the infected files as recommended by the antivirus program.
4. A virus requires a host program to run, whereas a worm is standalone software that replicates itself to spread to other computers.

Chapter-6 Introduction to HTML

A. Tick (✓) the correct option.

1. b.
2. b. Largest Heading
3. b. <a>
4. c. < >

B. Fill in the blanks.

1. <!DOCTYPE html>
2. <p>
3. < >
4. images
5. title

C. Write T for true and F for false statements.

1. False- HTML is used for structuring a webpage; CSS is used for styling.
2. True
3. False- The
 tag is used for a line break, not a page break.
4. False- HTML tags are not case-sensitive, although lower-case is recommended for consistency and readability.)

D. Answer the following questions.

1. The <head> section of a webpage has information and links to things like stylesheets and scripts that you don't see on the page. The <body> section has everything you do see on the page, like text, images and other media.
2. The <title> tag is used to set the page's title shown in the browser's title bar or tab, while the <h1> tag is used for the main heading within the webpage content.
3. It declares the document type and version of HTML used, helping browsers to display the page correctly.
4. Google Chrome and Mozilla Firefox.
5. CSS can be applied inline via the style attribute, internally via the <style> tag within the <head> section, or externally by linking to a CSS file with the <link> tag.

Chapter-7 Algorithm and Flowchart

A. Tick (✓) the correct option.

1. b. Oval
2. c. Rectangle
3. b. Visually represent a solution
4. a. Clear start and end

B. Fill in the blanks.

1. algorithm
2. beginning, end
3. diamond
4. Arrows
5. problems

C. Write T for true and F for false statements.

1. False- Algorithms are used in many areas, not just for computers.
2. False- Flowcharts typically start with an oval, representing the start of the process.
3. True
4. False- Flowcharts are generally read from top to bottom or left to right, depending on the layout.
5. True

D. Answer the following questions.

1. To ensure that it completes its task efficiently without entering into an infinite loop, providing a solution to the problem it was designed to address.
2. A rectangle is used to represent a process or task, while a parallelogram is used for input and output operations.
3. Decisions and operations (tasks or processes).
4. Step 1: Wake up and get out of bed.
Step 2: Brush teeth and get dressed.
Step 3: Pack school bag and eat breakfast.

Chapter-8 Introduction to Programming

A. Tick (✓) the correct option.

1. b. #
2. a. int
3. a. $x = 3$

4. b. Interactive mode

B. Fill in the blanks.

1. print() 2. Python 3. case 4. single-line

C. Write one word answer for each question.

1. 8 2. str 3. # 4. .py

D. Answer the following questions.

1. A variable in Python is a name used to refer to a memory location in a computer where you can store data values.
2. Interactive mode lets you run Python code one line at a time and see results right away, which is great for testing bits of code. Script mode runs all the commands in a file at once, which is good for running whole programs.
3. The input() function allows a Python program to take input from the user, letting the user provide data while the program is running.
4. To write a multi-line comment in Python, use triple quotes ("" or """) at the start and end of the comment.
5. Arithmetic operators (e.g., + for addition, * for multiplication) and comparison operators (e.g., == for equality, > for greater than).

Chapter-9 Intelligence and AI Approaches

A. Tick (✓) the correct answer.

1. a. Artificial Intelligence 2. b. Color Intelligence
3. a. If-then-else statements

B. Fill in the blanks.

1. John McCarthy 2. Visual-Spatial
3. adapt 4. Intrapersonal

C. Write T for true and F for false statements.

1. False- AI can make decisions, often based on data it has learned from or rules that have been programmed.
2. False- There are multiple types of intelligence.

3. True
4. False- According to Gardner's theory, individuals possess multiple intelligences in varying degrees.

D. Answer the following questions.

1. Artificial Intelligence is a field of computer science that makes machines think and act like humans, allowing them to perform tasks such as recognizing speech, making decisions and translating languages.
2. Logical-Mathematical Intelligence: Good at solving math problems and logical puzzles.
Musical Intelligence: Skilled in playing musical instruments and understanding music.
3. Rule-based AI uses predefined rules to make decisions, while learning-based AI improves its decisions over time by learning from data, without explicit programming for every situation.
4. AI impacts daily life by powering virtual assistants, improving healthcare diagnostics, enhancing personalization in services and automating routine tasks, making many processes more efficient.
5. AI has improved smartphone technology through features like predictive text, facial recognition for security and intelligent photo categorization.

Smart Coding Class 7

Chapter-1 Charts in Excel 2016

A. Tick (✓) the correct option.

- | | | |
|--------------------------------|------------------|------------------|
| 1. b. F11 | 2. c. Line | 3. b. Categories |
| 4. c. Use the Chart Tools menu | 5. a. Spider Web | |

B. Fill in the blanks.

- | | | |
|-----------|--------------|-----------|
| 1. Y-axis | 2. Column | 3. Legend |
| 4. 255 | 5. Plot area | |

C. Match the following.

- | | | | | |
|------|------|------|------|------|
| 1. e | 2. d | 3. b | 4. a | 5. c |
|------|------|------|------|------|

D. Write T for true and F for false statements.

1. False- A pie chart shows only one data series.
2. True
3. False- You need to select data to create a chart.
4. True
5. False- In Excel, you can change the chart type at any time after creating the chart.

E. Answer the following questions.

1. To change the chart style in Excel, click on the chart to select it, then go to the “Chart Tools” on the Ribbon. Under “Design,” you can choose a new style from the Chart Styles gallery.
2. A legend in a chart explains what each colour or pattern represents. It is important because it helps you understand which data series each part of the chart corresponds to.
3. A bar chart displays data with horizontal bars, while a column chart displays data with vertical columns. Both are used to compare values, but their orientation is different.

4. To add a data series to a chart, right-click on the chart and choose “Select Data.” In the “Select Data Source” window, click “Add” and then specify the range for the new data series.
5. Gridlines help you read the values on a chart more easily by providing a visual reference to align data points with their corresponding values on the axes.
6. To move a chart to a different worksheet, right-click on the chart and select “Move Chart.” Then choose “New sheet” to move it to a new worksheet or “Object in” to move it to an existing worksheet and select the desired worksheet.
7. To format a chart in Excel, first click on the chart to select it. Use the “Chart Tools” options on the Ribbon, including “Design” and “Format,” to change styles, colours, fonts and other formatting options. You can also right-click on specific chart elements to format them individually.

Chapter-2 Advanced Features of Excel

A. Tick (✓) the correct option.

1. a. Select the data range 2. b. Sort & Filter
3. b. Highlight specific data
4. c. Sort by multiple columns 5. b. Ctrl + Shift + L

B. Fill in the blanks.

1. least to most important 2. Filter
3. Home 4. Add Level 5. Data menu

C. Write T for true and F for false statements.

1. False- Sorting is applicable to both numbers and text in Excel.
2. True
3. False- Custom Sort allows both ascending and descending sorting options.

4. False- Filters hide rather than delete data, making it invisible but still present.
5. True

D. Answer the following in one word.

1. Sorting 2. Filtering 3. Conditional Formatting
4. Add Level 5. Headers

E. Answer the following questions.

1. To sort data in Excel, first select the data range. Then, go to the “Data” tab and click on the “Sort” button. Choose the column to sort by and select either ascending or descending order. Click “OK” to apply the sort.
2. To apply filters, select the data range, go to the “Data” tab and click on “Filter.” Small drop-down arrows will appear in the column headers. Click these arrows to select filter criteria.
3. Conditional formatting is a feature that changes the appearance of cells based on specific conditions. It is used to highlight important information, such as values above a certain number or dates within a range.
4. Sorting arranges data in a specific order, such as alphabetically or numerically. Filtering hides data that does not meet certain criteria, showing only the relevant rows.
5. Custom sorting allows you to sort data by more than one column. You use it when you need to organize data based on multiple criteria, such as sorting by date and then by name.
6. Conditional formatting helps to quickly identify trends, patterns and outliers in the data, making it easier to analyze and understand the information.
7. To remove filters, go to the “Data” tab and click on the “Filter” button again. This will turn off the filters and display all the data.

Chapter-3 More on Adobe Animate CC

A. Tick (✓) the correct option.

1. b. Color
2. a. Ctrl + G
3. c. Shape Tween
4. b. Filling colors
5. b. F6

B. Fill in the blanks.

1. Ctrl + J
2. gradient
3. Paint Bucket
4. Frame-by-frame
5. Import to Stage

C. Write T for true and F for false statements.

1. False- Shape tween is used for morphing one shape into another, not for symbol-based animations.
2. True
3. False- The Pencil tool is primarily used for drawing lines, not for coloring.
4. True

D. Answer the following in one word.

1. Selection
2. F7
3. Color
4. Tween
5. .fla

E. Answer the following questions.

1. Adjust the frame rate by changing the value in the Document Settings dialog under the Frame Rate field.
2. Shape tweens change shapes, classic tweens move symbols along a path and motion tweens create movement transitions.
3. The Library panel organizes and stores reusable symbols and assets for efficient use across the animation project.
4. Create different images in consecutive frames to display changing content, like flipping through a book.
5. Symbols streamline the animation process, reduce file size and make edits more manageable by reusing assets.

Chapter-4 Internet Services

A. Tick (✓) the correct option.

1. b. Zoom
2. b. Twitter
3. b. Really Simple Syndication
4. b. E-banking
5. c. Cloud Storage

B. Fill in the blanks.

1. tweets
2. Cloud computing
3. RSS feeds
4. Digital wallets
5. Video conferencing

C. Write T for true and F for false statements.

1. False- Instagram is mainly for sharing photos and videos, not for video conferencing.
2. True
3. False- Online banking is available 24/7, not restricted to physical bank hours.
4. True
5. False- OneDrive is a service provided by Microsoft, not Google.

D. Answer the following questions.

1. Zoom's key features include the ability to host large meetings, screen sharing and cross-platform support, making it versatile for various types of virtual meetings.
2. Cloud computing provides shared computing resources (like servers and storage) over the internet. Types include public, private, community and hybrid clouds, each serving different needs.
3. Online banking works by allowing you to perform financial transactions via the internet. Benefits include convenience, 24/7 availability and reduced need for physical visits to the bank.
4. RSS feeds are significant as they automatically keep you updated with the latest content from your favorite websites without needing to visit them individually.

5. Podcasting is the creation and distribution of audio or video episodes online. Popular platforms include iTunes and Spotify.
6. Blogging offers a platform for individuals to express personal views or experiences and can be used by businesses to share knowledge, updates and engage with customers, enhancing their visibility and brand.

Chapter-5 Introduction to App development

A. Tick (✓) the correct option.

1. b. iOS
2. b. Google Play Store
3. b. Web App
4. c. Photoshop
5. b. Active internet connection

B. Fill in the blanks.

1. mobile app
2. Google
3. web browser
4. Android
5. Google Play Store

C. Write T for true and F for false statements.

1. False- Apps serve a wide range of purposes beyond entertainment, including education, business and personal productivity.
2. True
3. False- Web apps are accessed via a web browser and are not downloaded from app stores.
4. False- iOS is exclusive to Apple devices and is not available for use on non-Apple hardware.
5. True

D. Answer the following in one word.

1. .apk
2. App Inventor
3. 2008
4. .iOS
5. Native

E. Answer the following questions.

1. An app is a software program designed to perform specific tasks on devices like smartphones, tablets and computers.

They can range from utility, educational, gaming, to productivity applications.

2. Web apps run in web browsers and need an active internet connection, while native apps are installed directly on a device and tailor-made for that platform's operating system.
3. Mobile apps are portable and can be used anywhere you carry your phone. They are often designed to work faster and use the device's features like camera and GPS, unlike desktop apps which are used on a computer at one location.
4. Hybrid apps combine elements of both web and native apps. They can be used across multiple platforms like a web app but are installed like a native app, often enhancing performance and integration.
5. Educational apps facilitate learning, social media apps enhance communication and gaming apps provide entertainment and interactive experiences.
6. Open the Google Play Store on your Android device, search for the app you want, click on it and then press 'Install'. Wait for the app to download and install and then you can open it directly from the store or find it on your device.
7. Mobile operating systems are crucial for running apps and managing the device's hardware and software resources. Two popular ones are Android OS and iOS.

Chapter-6 More on HTML 5

A. Tick (✓) the correct option.

1. a. <h1> 2. a. 3. b. align="center" 4. b.

B. Fill in the blanks.

1. <title> 2. paragraphs
3. <i> 4. <body style="background-color:color">

C. Write T for true and F for false statements.

1. False- The tag is used for embedding images, not for setting background colors.
2. False- HTML comments are hidden from users and only visible in the source code.
3. False- The
 tag is self-closing and does not require an end tag.
4. True

D. Answer the following questions.

1. The <head> tag contains meta-information about the document, like the title and links to scripts and stylesheets, while the <body> tag contains all the contents of the webpage that are visible to the user.
2. Use the style attribute within the <body> tag, like this: <body style="background-color: blue;">.
3. Inline elements, like , do not start on a new line and take up only as much space as needed. Block elements, like <div>, start on a new line and take up the full width.
4. HTML comments are notes in the code that are not displayed on the webpage. They are useful for explaining the code, making it easier to understand and maintain.
5. The
 tag inserts a single line break and is used within text, while the <p> tag creates a new paragraph, adding space before and after the text.

Chapter-7 List and Tables in HTML

A. Tick (✓) the correct option.

- | | |
|---------------|---------------------|
| 1. c. <table> | 2. b. |
| 3. b. type | 4. a. Table Heading |

B. Fill in the blanks.

- | | |
|--------------|------------|
| 1. unordered | 2. |
| 3. <th> | 4. bgcolor |

C. Match the following.

1. c. 2. d. 3. a. 4. b. 5. d.

D. Write T for true and F for false statements.

1. False- The <dl> tag is used for description lists, not ordered lists.
2. True 3. True 4. True

E. Answer the following questions.

1. Ordered lists () display items in a specific sequence, usually with numbers or letters. Unordered lists () display items with bullets and the order does not matter.
2. Use the type attribute in the tag to change numbering styles (e.g., Arabic numbers, Roman numerals, or alphabets).
3. The <th> tag is used to define header cells in an HTML table. It usually contains important information that describes the content of the columns or rows.
4. The cellpadding attribute specifies the amount of space between the content of a cell and its border. It helps to create some padding inside the cell for better readability.
5. Use the colspan attribute in a <td> or <th> tag to extend a cell across multiple columns.

Chapter-8 More on Python

A. Tick (✓) the correct option.

1. b. if condition: print() 2. a. True
3. c. else 4. a. else if 5. b. False

B. Fill in the blanks.

1. true 2. false 3. elif
4. Indentation 5. colon (:)

C. Write T for true and F for false statements.

1. False- The elif statement can be used multiple times for different conditions following an if statement.

2. False- Indentation is crucial in Python; it defines the blocks of code under each conditional statement.
3. True
4. False- In Python, zero is considered False when used as a condition.
5. True

D. Answer the following questions.

1. The if statement in Python is used to execute a block of code only if a specified condition is true.
2. An if statement runs a block of code when the condition is true, while an if...else statement provides an alternative block of code to run when the condition is false.
3. A nested if statement is an if statement inside another if or else block, allowing for further decision-making within a condition. Example: if $x > 10$: if $x < 20$: print("x is between 10 and 20")
4. The elif keyword stands for "else if" and is used to check multiple conditions after an initial if statement.
5. A nested if statement is useful when you need to check another condition only if the first one is true. For example, if age ≥ 18 , print "You can vote" and if age ≥ 21 , print "You can also drink alcohol."
6. An if...elif...else statement checks multiple conditions in order, executes the block of the first true condition and if none are true, the else block runs, like checking a score to assign grades. For example, if score ≥ 90 , print "Grade A", elif score ≥ 75 , print "Grade B", elif score ≥ 50 , print "Grade C", else print "Grade F"

Chapter-9 Domains of AI

A. Tick (✓) the correct option.

- | | |
|-----------------------------|-----------|
| 1. b. Intelligence | 2. c. NLC |
| 3. b. Large volumes of data | 4. b. See |

5. c. Quick decision-making

B. Fill in the blanks.

- | | | |
|----------------------------|------------|-------------|
| 1. Artificial Intelligence | 2. NLP | 3. Big Data |
| 4. Computer Vision | 5. fatigue | |

C. Write T for true and F for false statements.

1. False- NLP is also used in chatbots and translation services.
2. False- Big Data is very important for training AI models.
3. True
4. False- AI can make decisions based on data.
5. False- Computer Vision is used for many tasks like object detection and autonomous driving.

D. Answer the following questions.

1. AI benefits from Big Data by using large amounts of data to train models, improve accuracy and make informed decisions.
2. Computer Vision allows autonomous vehicles to perceive and understand the environment around them to navigate safely.
3. NLP enables computers to understand, interpret and generate human language, allowing for more natural and effective interactions.
4. AI is used in healthcare for tasks such as disease diagnosis, personalized treatment recommendations and patient monitoring.
5. AI can process and analyse data at speeds and accuracies that are impossible for humans, leading to faster and often more reliable outcomes.
6. AI can perform risky tasks such as bomb disposal or toxic waste handling without the risk to human life, enhancing safety in dangerous environments.

Smart Coding Class 8

Chapter-1 Computer Networking

A. Tick (✓) the correct option.

- | | | |
|--------------|--------------|------------|
| 1. b. Switch | 2. b. WAN | 3. a. Star |
| 4. c. HTTPS | 5. c. Router | |

B. Fill in the blanks.

- | | | |
|------------------------------------|------------------|--------------|
| 1. Metropolitan Area Network (MAN) | 2. ring topology | |
| 3. Bluetooth | 4. Internet | 5. Protocols |

C. Identify the following devices.

- | | | |
|--------------|----------|-----------|
| 1. RJ45 Port | 2. Modem | 3. Router |
|--------------|----------|-----------|

E. Write T for true and F for false statements.

1. True
2. False- LANs are usually faster than WANs because they cover smaller areas and have less data traffic.
3. True
4. False- In a client-server network, the server has more resources and provides services to the clients, which do not have equal roles.
5. True

E. Answer the following questions.

1. Computer networks are needed to facilitate communication and resource sharing between computers and devices, enhancing efficiency and collaboration.
2. A router directs data packets between networks, while a modem connects a network to the Internet by converting digital data to analog for transmission.
3. An IP address uniquely identifies a device on a network, enabling it to communicate and receive information.

4. A switch enhances network performance by directing data directly to the intended device rather than broadcasting to all devices on the network.
5. Bandwidth is the maximum rate of data transfer across a given path in a network, measured in bits per second (bps).
6. Wireless networking allows devices to connect and communicate without physical cables, using radio waves or infrared signals.
7. Protocols in networking define rules and conventions for communication between network devices, ensuring reliable data transfer.

Chapter-2 Introduction to Photoshop

A. Tick (✓) the correct option.

1. b. Patch tool
2. c. Managing image layers
3. c. .psd
4. a. Start menu
5. c. Creates color blends

B. Recognise the following tools and write their names.

1. Crop Tool
2. Lasso Tool
3. Selection Tool
4. Stamp or Clone Tool
5. Text Tool

C. Write T for true and F for false statements.

1. False- Photoshop can edit photos, create designs, manipulate images and manipulate graphics.
2. False- The Move tool is used to reposition layers and selections, not for drawing.
3. True
4. False- The Layers Panel displays all layers and effects applied to those layers within a Photoshop document.
5. False- The Brush tool is used for painting, while the Eraser tool is used for erasing.

D. Provide a one-word answer for each question.

1. .psd
2. Gradient
3. Patch
4. Eyedropper
5. New

E. Answer the following questions.

1. To create a new file in Photoshop, go to the File menu, select 'New,' configure your desired settings in the dialog box and click 'Create.'
2. The Layers Panel allows you to manage different layers in a document, enabling non-destructive editing, reordering and applying effects to individual layers.
3. The Clone Stamp tool is used for duplicating parts of an image by painting one part of an image over another part of the same image or a different one.
4. To insert an image, go to File, select 'Place Embedded,' choose your image file and then click 'Place.'
5. Open the image in Photoshop, go to the Image menu, select 'Mode,' and choose 'Grayscale' to convert the image to black and white.
6. Photoshop's robust toolkit, advanced editing capabilities, support for layers and effects and its versatility in handling various graphic formats make it popular among professionals.

Chapter-3 Advanced Photoshop Tools

A. Tick (✓) the correct option.

1. b. Mixer Brush Tool
2. c. Removes blemishes
3. b. Click New Layer icon
4. b. Drawing predefined shapes
5. b. Navigating

B. Fill in the blanks.

1. Mixer Brush
2. Layers
3. Smudge

4. Ctrl+T
5. Content Aware Move

C. Write T for true and F for false statements.

1. False- The Blur Tool is used to soften areas of an image, not sharpen them.
2. True
3. False- The Hand Tool is used for navigating around the image, not for drawing.
4. True
5. False- The Pencil Tool creates hard edges, while the Brush Tool is known for softer strokes.

D. Answer the following questions.

1. The Brush Tool allows you to paint on an image with various brush strokes, sizes and settings, similar to painting on a traditional canvas.
2. Layers are managed through the Layers Panel, where you can create, delete, hide, rearrange and adjust settings like opacity and blending modes.
3. The Zoom Tool allows you to magnify and reduce your view of specific areas of the canvas, aiding in detailed work.
4. The Dodge Tool is used to lighten selected areas of an image, enhancing details or correcting exposure.
5. The Clone Stamp Tool is used for duplicating parts of an image or to cover up imperfections by painting with sampled pixels from another part of the image.
6. Select the Type Tool, click on the canvas where you want to add text and type your message. The text appears on a new layer, allowing you to adjust font, size and color.
7. Go to Image > Adjustments > Hue/Saturation, use the sliders to adjust the hue (color tone) and saturation (color intensity) of the entire image or selected areas.

E. Match the Following

1. c.
2. d.
3. e.
4. a
5. b.

Chapter-4 Cyber Safety

A. Tick (✓) the correct option.

1. b. Detect malware
2. c. Hacking
3. b. Using spam filters
4. b. Online activity records
5. b. Using licensed software

B. Fill in the blanks.

1. safe
2. firewall
3. Phishing
4. Copyright
5. Spam

C. Write T for true and F for false statements.

1. False- The Internet is managed by a collective of independent, voluntary bodies.
2. False- Opening emails from unknown senders can be risky as they might contain malware or phishing links.
3. False- Cyber crimes can be committed by individuals or organized groups.
4. True
5. False- Sharing personal information online can be risky and should be done cautiously.

D. Match the Following.

1. c.
2. d.
3. e.
4. a.
5. b.

E. Answer the following questions.

1. Cyber safety refers to the practice of using the Internet and connected devices in a secure and responsible way.
2. A digital footprint is the record of a person's online activities. It can impact privacy and personal security.
3. Phishing can be recognized by suspicious links, unexpected emails and requests for personal information. Avoid it by not clicking on unknown links and verifying the source.
4. Securing a Wi-Fi connection involves using strong passwords, enabling network encryption and keeping the router's firmware updated.

5. Strong passwords are crucial as they prevent unauthorized access to your accounts, protecting against hacking and identity theft.
6. Intellectual property rights protect creators' works from unauthorized use, ensuring they can control and profit from their creations.

Chapter-5 Latest Technological Developments

A. Tick (✓) the correct option.

1. c. IoT
2. a. Robotic Process Automation
3. a. Direct Metal Laser Sintering
4. a. Speech Recognition
5. a. Google Glass

B. Match the following.

1. d 2. e 3. b 4. a 5. c

C. Write T for true and F for false statements.

1. False- 3D Printing was developed earlier, in the 1980s.
2. True
3. False- Virtual Reality does not require a physical connection to the real world.
4. True
5. False- Not all AI applications require internet access; some operate offline based on pre-installed data and algorithms.

D. Answer the following questions.

1. AI, or Artificial Intelligence, is technology that enables computers to mimic human cognitive functions like learning and problem-solving.
2. AI can personalize learning by adapting materials to students' learning speeds and styles and it can provide real-time feedback and assessment.

3. AR overlays digital information onto the real world, enhancing it, while VR creates a completely immersive virtual environment that isolates the user from the real world.
4. IoT can connect various home devices to automate tasks, enhance security and improve energy efficiency, making homes smarter and more responsive to occupants' needs.
5. RPA improves efficiency, reduces errors and frees up human employees to engage in more complex and creative tasks.
6. 3D Printing has revolutionized the medical field by enabling the rapid production of medical devices, custom prosthetics and even synthetic tissues and organs.
7. AI can help in daily tasks by managing smart home devices, providing personalized reminders and even making suggestions for daily activities based on preferences and past behavior.

Chapter-6 Images, Links and Frames in HTML

A. Tick (✓) the correct option.

1. b.
2. c. Alternative text
3. b. href
4. c. To embed a webpage
5. c. .aac

B. Match the following.

1. d.
2. e.
3. a.
4. b
5. c.

C. Write T for true and F for false statements.

1. False- The tag is self-closing and does not require a closing tag.
2. True
3. False- The <audio> tag widely supports the .mp3 format.
4. True
5. True

D. Answer the following questions.

1. Use the tag with the src attribute to specify the

image source and the alt attribute for an alternative text description.

2. The alt attribute provides alternative information for an image if a user cannot view it due to slow connection, an error, or if the user uses a screen reader.
3. Use the <a> tag with the href attribute to specify the link's destination. Place the text or image that will serve as the link between the opening and closing <a> tags.
4. Use the <video> tag with src attribute to specify the video file and include controls attribute to display video controls like play, pause and volume.
5. The <iframe> tag is used to embed another HTML document within the current document, allowing for displaying content like maps or videos from another source.
6. Using external images can save bandwidth and storage on your own server and allows for updates and changes to images to be centralized and immediately reflected across all linked pages.

Chapter-7 Loops in Python

A. Tick (✓) the correct option.

- | | |
|-----------------------------------|--------------------|
| 1. b. Loops | 2. c. Both a and b |
| 3. b. Skips the current iteration | 4. b. range() |
| 5. c. Never stops on its own | |

B. Match the following.

- | | | | | |
|-------|-------|-------|-------|-------|
| 1. c. | 2. e. | 3. b. | 4. a. | 5. d. |
|-------|-------|-------|-------|-------|

C. Write T for true and F for false statements.

1. False- The range() function can generate sequences starting from any number, not just 0.
2. True
3. False- A for loop can iterate over any iterable, including lists.

4. False- The break statement immediately exits the loop, not just the current iteration.
5. False- Python supports using an else part with loops, which runs when the loop completes normally, without a break.

D. Answer the following questions.

1. A for loop in Python iterates over a sequence of items, executing the loop body for each item until the sequence is exhausted.
2. The break statement exits the loop entirely, while the continue statement skips the current iteration and continues with the next one.
3. A while loop continues to execute as long as the condition remains true; when the condition becomes false, the loop stops.
4. For example, for i in range(5): print(i) will print numbers 0 to 4.
5. An infinite loop runs continuously without stopping because the loop condition is always true or there is no condition to make the loop stop.
6. An else clause might be useful in a loop to perform a final action after the loop completes without interruption, like confirming a list was searched entirely without finding an item.
7. A for loop is typically used when the number of iterations is known or defined by a sequence, while a while loop is used when the number of iterations is not known in advance and depends on a condition.

Chapter-8 Functions and String in Python

A. Tick (✓) the correct option.

- | | |
|---|---------------|
| 1. b. Calculates the length of a string | 2. b. * |
| 3. b. def | 4. a. print() |

5. b. Using single or double quotes

B. Write T for true and F for false statements.

1. False- The def keyword is used to define a function, not to call it.
2. True
3. False- Python allows users to create their own user-defined functions.
4. True
5. False- The + operator is used for string concatenation, not replication. The * operator is used for replication.

C. Provide answers in one word each for the following questions.

1. +
2. Upper
3. len
4. Either Single or double quotes
5. Colon (:)

D. Answer the following questions.

1. To define a function in Python, use the def keyword followed by the function name and parentheses. Include any parameters within the parentheses and then use a colon to start the indented block of code that forms the function's body.
2. Built-in functions are provided by Python and available without any additional code (e.g., print(), len()). User-defined functions are written by the programmer to perform specific tasks.
3. String concatenation is the process of combining two or more strings into one. For example, 'Hello' + ' ' + 'World' results in 'Hello World'.
4. To call a function in Python, write the function's name followed by parentheses. If the function requires arguments, include them inside the parentheses.
5. The return statement sends a value back from a function to the part of the program that called it. This allows the

function to produce output that can be used elsewhere in the program.

6. For example, `len('Hello')` would return 5.
7. Escape sequences in Python strings start with a backslash (`\`) and are followed by the character that represents the special operation, such as `\n` for newline or `\t` for a tab. They allow inclusion of special characters in a string that would otherwise be difficult to include.