COMPUTER WORLD 1 to 8

| Chapter 1. | Computer : A Friendly Machine |

A. 1. (a), 2. (a), 3. (b),
4. (a), 5. (b)

B. 1. (C), 2. (C), 3. (I),
4. (C), 5. (I)

C. 1. digital 2. human beings,
3. tired, 4. computers
5. tablet

D. 1. data 2. fast
3. task 4. commands
5. tired 6. information

| Chapter 2. | Parts of a Computer |

A. 1. (b), 2. (a), 3. (b),
4. (a), 5. (b)

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

C. 1. Speaker 2. Monitor
3. Printer 4. Mouse
5. CPU

D. 1. (I) 2. (C)
3. (C) 4. (C)
5. (C)

E. 1. Monitor 2. Keyboard
3. Mouse 4. CPU
5. Printer 6. Speaker

| Chapter 3. | Naughty Mouse |

A. 1. (b), 2. (b), 3. (a),
4. (b), 5. (b)

B. 1-C, 2-I 3-I
4-I 5-I

C. 1. cable 2. pointer
3. pad 4. Scroll wheel
5. index

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

E. Do yourself

| Chapter 4. | Drawing in Computer |

A. 1. (a), 2. (b), 3. (b),
4. (b), 5. (b)

B. 1-I 2-C 3-I
4-C 5-C

C. Do yourself
D. Do yourself
E. Do yourself

| Chapter 5. | The Keyboard |

A. 1. (b), 2. (a), 3. (a),
4. (a), 5. (b)

B. 1-C 2-C 3-C
4-I 5-C

C. 1. Down, 2. Caps Lock
3. Enter 4. Numbers
5. Notepad

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

E. Do yourself

●●

COMPUTER WORLD ②

Chapter 1. Working of a Computer

A. 1. (a), 2. (a), 3. (b),
4. (c), 5. (c)

B. 1. keyboard 2. printers
3. CPU 4. scanner
5. pen drive

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

D. 1. (I) 2. (I) 3. (C)
4. (I) 5. (C)

E. 1. Mouse 2. Speakers
3. Monitor 4. Processor
5. Printer

Some Fun !
1. Microphone 2. Mouse
3. Keyboard 4. Pen drive
5. Monitor

Chapter 2. Uses of a Computer

A. 1. (a), 2. (a), 3. (a),
4. (b), 5. (b)

B. 1. bills 2. homework
3. offices 4. booking
5. diseases

C. 1. (I) 2. (C) 3. (C)
4. (C) 5. (C)

D. 1. (a) 2. (c) 3. (e)
4. (a) 5. (b)

E. 1. prepare medical reports
2. Bank 3. Airports
4. police 5. teacher

Some Fun !
1. HOTEL, BANK, OFFICE, HOME

Chapter 3. Working with Windows

A. 1. (b), 2. (a), 3. (c),
4. (a), 5. (b)

B. 1. (C) 2. (I) 3. (I)
4. (C) 5. (C)

C. 1. UPS 2. gently 3. eyes
4. long 5. short

D. 1. UPS
2. (i) Keep the computer site from dust. Always cover it when you do not use it.
   (ii) Clean the computer with a clean, soft and dry cloth.
3. (i) Never play with the connections and wires of the computer.
   (ii) Do not mishandle the mouse, keyboard and monitor.
4. The first display screen, you get when the computer is switched on is known as desktop.

Chapter 4. Fun with Tax Paint

A. 1. (b), 2. (a), 3. (a),
4. (a), 5. (b)

B. 1. Paint 2. left 3. Flip
4. Label 5. Brushes

C. 1. (C)   2. (I)   3. (C)

    4. (C)   5. (I)

D. 1. Fold   2. Grass

    3. Calligraphy   4. Foam

E. 1. Do yourself.

    2. Magic tool helps you apply various special effects and patterns in your drawing.

Chapter 5.   Fun with MS Paint

A. 1. (b),   2. (b),   3. (b),

    4. (a),   5. (a)

B. 1. eraser   2. square   3. Color 1

    4. Brush   5. Tabs

C. 1. (C)   2. (I)   3. (C)

    4. (C)   5. (I)   6. (C)

Chapter 6.   Introduction to Word Pad

A. 1. (a),   2. (a),   3. (a),

    4. (a),   5. (a)

B. 1. page   2. Home   3. colour

    4. File   5. pictures

C. 1. (I)   2. (I)   3. (I)

    4. (C)   5. (I)

D. 1-d   2-a   3-c

    4-b   5-f   6-e

E. Do yourself.

●●

COMPUTER WORLD ③

Chapter 1. Working of a Computer

A. 1. (b), 2. (b), 3. (b),
4. (b), 5. (c)

B. 1. Devices 2. Hardware
3. ALU 4. Wordpad
5. Input

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

D. 1. (✓) 2. (✓) 3. (✓)
4. (✗) 5. (✓)

E. 1. Input-Processing-output
2. + and - is Airthmetic Logic and 40, 60 and 30 is data
3. Central Processing unit
4. Airthmetic logic unit
5. Control Unit

F. 1. Input refers to any informati on or data, that is sent to a computer for processing.

2. Any information processed by and sent out from computer is considered output.

3. Central processing unit is known as the brain of the computer. It processes the data as per given instruction. It is located inside the system unit or CPU box.

4. Computer first take the input via input devices (keyboard, mouse etc.) process it with the help of the CPU and give the out through output devices (Monitor, printer etc.)

5. All device of computer system are together called hardware.

6. Software are the programs which we run onthe computer. Tux paint, word pad, MS Paint are example of some computer software.

Chapter 2. Introduction to Windows 10

A. 1. (b), 2. (c), 3. (a),
4. (a), 5. (b)

B. 1. Graphics 2. Wallpaper
3. Ribbons 4. Icons
5. Operating system

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

D. 1. Tiny pictures on the desktop are icons.
2. Windows is an operating system.
3. Wallpaper is the cover of desktop.
4. Screen Saver are moving graphics which are appear on the screen.

5. Some programs that we use often. These programs can be placed on the taskbar. This is called pinned a program.

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

F. 1. A software that manages entire computer system known as operating system. Example : Windows 10, Macos, Linux, Chrome OS.

2. Windows 10 provides a voice enabled search bot, it is called cortana.

3. System Tray is situated on the right hand side of taskbar. It shows icons of those programs which are running quietly in the background like Antivirus.

4. Working area is a large area located in the centre of Window. Our work such as drawing, text etc, are shown in the work area.

5. We use scroll bars to scroll the window vertically or horizontally.

Chapter 3. Working With Files and Folders

A. 1. (a),   2. (a),   3. (c),

4. (b),   5. (b)

B. 1. Unique   2. Image

3. Desktop   4. Files

5. audio

C. 1. (T)   2. (F)   3. (T)

4. (F)   5. (T)

D. 1-d   2-c   3-e

4-b   5-a

E. 1. A folder holds one or more files and a folder can empty untill is filled.

2. A folder inside another folder is called a sub-folder.

3. A driver is a program that enables communication between an operating system and a handware components and software application.

4. It is right hand side part of PC.

F. 1. Different computer files open in different software or programs as, image file in opend in MS paint while Text file opens in Notepad or Wordpad.

2. Content is right hand side part in PC. It is a large part. Content of the folder or drive selected in the left side is shown in PC.

3. A folder is the virtual location for applications, documents, data or other sub folders. Folders help in storing or organizing files and data in the computer.

4. To create a folder, right-click, then select New > folder.

5. For save the file in desired folder follow these steps :

1. File > save

2. In the save as dialog box, click on D:drive.

3. Double click on the desired folder.

4. Type the name of the file.

5. Click on the save button.

Chapter 4. MS Point Tools

A. 1. (b),   2. (a),   3. (c),

4. (a),   5. (b)

B. 1. color 2   2. color 1

3. Magnifier   4. texttool

5. Rotate options

C. 1. (T)   2. (T)   3. (T)

4. (T)   5. (T)

D. 1. d   2. c   3. e

4. b   5. a

E. 1. Magnifier is used to enlarge or reduce any region of the drawing.

2. (i) On the ribbon, choose the color picker.

(ii) Click the color that you wish to match.

(iii) Select the image where you want to put the color.

3. We can make our text opaque too. After typing, click on the opaque option in the text ribbon.

4. Resize tool displays a dialog box. In the dialog box, we can enter the size of the drawing. Using it we can resize the entire drawing.

5. Rotate tool allows to turn the selected part of the drawing by 90° and 180° degree.

Chapter 5. Introduction to MS Word 2016

A. 1. (c), 2. (c), 3. (b),
4. (b), 5. (c)

B. 1. Tab 2. Cursor
3. Scrolling 4. Erase
5. Mouse

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

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

Chapter 6. Fun with Scratch

A. 1. (a), 2. (c), 3. (b),
4. (c), 5. (b)

B. 1. Scratch 2. Script
3. Motion 4. Block

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

D. 1. (T) 2. (T) 3. (F)
4. (T) 5. (T)

E. 1. Instruction or set of instructions given to computers to perform task is called programming.

2. Stage is used to keep all the sprites which we add in our project.

3. We can add backdrop by using backdrop editor. Backdrop button is located right below the stage.

4. Scratch is free block-based programming that allows you to create your own games, stories and animation. On Scratch, you can programs many different types of projects such as magicpen, wizard Tag Game etc.

5. Select "left-right" from the drop-down menu to make the sprite only rotate horizontally. Select "all around" from the drop-down menu to make the sprite flip vertically. Select "don't rotatdd from the drop-down menu to make the sprite face only one direction.

● ●

Chapter 1. Windows Settings

A. 1. (b),   2. (b),   3. (b),

    4. (c),   5. (c)

B. 1. 3D Text   2. Clock

    3. Wallpaper   4. Personalization

    5. Windows

C. 1. (✓)   2. (✗)   3. (✓)

    4. (✓)   5. (✓)

D. 1. An operating system executes the working of a computer system.

2. Making changes in the computer settings according to our choice is called personalizatio.

3. (i) In the setting window, click on persoalization.

    (ii) In the Background dropdown, click on your choice.

    (iii) For picture, choose the available pictures or click on Browser to locate and select any picture your desire to set as background.

    (iv) Select the position of desired picture from choose a fit dropdown.

4. For setting a them in the setting window :

Themes section > Click on your desired them.

5. To set up a screen saver, in the settings window.

    (i) Click on Lock screen section > Screen saver settings. A screen saver dialog box appears.

    (ii) Click on the screen saver drop-down and select the saver of your choice.

    (iii) Set the wait time.

    (iv) Click on ok button.

E. 1. When you are not using your computer for some time, then graphis or moving patterns display on the moniter this is called a screen saver.

2. Making changes in the setting according to our choice is called personalization.

3. Theme is a combination of graphical settings. It remains available in windows created in form like backgroudn, Window colour, screen savers and sound etc.

4. The background picture on the desktop is known as wallpaper.

Chapter 2. Windows 10 : Working with Files and Folders

A. 1. (c),   2. (b),   3. (a),

    4. (c)

B. 1. Permanently   2. Folder

    3. Ctrl + V   4. Primary

    5. Sub-folder

C. 1. (✓)   2. (✗)   3. (✗)

    4. (✗)   5. (✓)

D. 1-d   2-c   3-e

    4-a   5-b

E. 1. A file stores our work in the computer. The work remains in the form of files.

To create a file :

    (i) Open an application (Word, Powerpoint, etc.) and create a new file.

(ii) Click file.

(iii) Click saveas

(iv) Select Box as the location where you like to save your file.

(v) Name your file.

(vi) Click save

2. In computer, a folder is the virtual location for applications, documents, data or other sub folders.

Folders help in storing and organizing files and data in the computer. The term in most commonly used with graphical user interface operating systems.

3. The files or folders that we sotre in our computer can be seen in the PC window.

It helps us manage the files and folders stored in other memory devices.

4. When we delete a file or folder windows moves it to the recyclebin, by default.

To Restore a deleted file or folder, do the following steps.

(i) Go to the Desktop and double click on the Recyclebin icon. It displays all the deleted files and folders.

(ii) Select the file or folder to restore.

(iii) Now click on the Restore, the selected items button on the toolbar.

5. F2 function key use to rename the file or folder.

Chapter 3. Edit and Format Word Document

A. 1. (b), 2. (b), 3. (c),
4. (c) 5. (b)

B. 1. Red 2. Toggle
3. Sentence Case 4. The savrus
5. Subscript

C. 1. (✗) 2. (✓) 3. (✓)
4. (✓) 5. (✓)

D. 1. (g) 2. (f) 3. (e)
4. (c) 5. (h) 6. (b)
7. (i) 8. (a) 9. (d)

E. 1. Editing is the most important work we do in a word processor. It includes doing corrections and modifications in the textual document with the help of various editing tools.

2. Formattign means to change the look of the text and other objects like changing font, colour, size etc.

3. Thesaurus is a collection of synonyms and antonyms of the given word. It helps in enhancing the language of the document and improves your vocabulary.

4. Right-click on the misspelt word with red wavy underline and select the suitable spelling in the context menu. After select the word and type ctrl+B and ctrl+U.

5. (a) Ctrl + Page Up
(b) Ctrl + Page Down
(c) UP arrow (d) End
(e) Home key

Chapter 4. MS Word : Text Enhancement

A. 1. (a), 2. (a), 3. (a),
4. (a) 5. (c)

B. 1. left, justified 2. style
3. Line 4. border

5. Water mark

C. 1. (✓)   2. (✓)   3. (✗)

4. (✗)   5. (✓)   6. (✗)

7. (✓)

D. 1. Text alignment means to align the text and set it on a page or a document.

2. ● Align Text Left : Ctrl + L

● Centre   : Ctrl + E

● Align Text Right : Ctrl + R

● Justify   : Ctrl + J

3. When bullets are set before each point, it is called bullet list whereas the list in which numbers are arranged in a sequence is called the number list.

4. borders are the set of lines, design shapes, images, text boxes, boundaries. Borders have various styles, colours and thickness. Borders can also be drawn arround the entire page.

5. Watermarks are the faint imprints of text or images. They appear behind the text. They help in claiming the ownership of a document. They provide the information or hint of the original owner or creator of the document.

Chapter 5. MS Word : Working with Graphics

A. 1. (d),   2. (c),   3. (c),

4. (a)   5. (a)

B. 1. top   2. removes

3. Clip Art   4. styles

5. shapes

C. 1. (✓)   2. (✗)   3. (✗)

4. (✓)   5. (✗)

D. 1. To rotate the picture, click o it. A rotating icon displays at the top of the picture. Hold the rotation handle with left-click of the mouse and drag the mouse slowly in clockwise or anti clock-wise to rotate the picture.

2. Followign steps can be done to wrap text around the picture.

(i) Select the picture that you like to wrap text arrow. The Layout options button will appear on the top right of the picture.

(ii) Click on the Layout options. A few wrap text options will appear.

(iii) Now, click on the required, option like square, Tight, Through, etc.

(iv) Close the Layout option box.

3. Cropping is applied to remove the anwanted region of an image or picture.

4. Clipart is a group of illustrations, symbols, photographs videos and audios that remain available for computer users to insert into their document.

5. Text can be set inside these shapes effects for a better presentation. To insert text inside a shape, right click on it and select. Add Text option. It will set the text inside the desired shape.

Chapter 6. MS Power Point : Basic & Formatting

A. 1. (c),   2. (d),   3. (c),

4. (c)

B. 1. Slide show   2. Gradient

3. Duplicate   4. Numbered

5. Left, Right

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

D. 1. Three components of a powerpoint window are :

(a) Quick Access Toolbar— It consists of commands that are frequently used like save, undo, Redo, Print etc.

(b) Title Bar—Title bar displays the name of the presentation and three control button viz, minimize, maximize/restore and close.

(c) Ribbons—Ribbons different for tabs such as Home, Insert, Design, Animations, etc. containn commands to work with power point.

2. A blank presentation has no slides nor it has any predefined colours or style. It is a plain, black and white presentation that can be formatted as per your choice.

3. Design themes are pre-loaded designs (Fonts, Colours, backgrounds, etc.) Which can be applied on the slides for quick and easy formatting of the presentation. This save a lot of time and effort. It also provides a consistent, professional look to the presentations.

4. Various text formatting options remain available on the Home tab in several groups.

To apply any type of formatting, first select the text that you want and click on the desired options.

5. (a) Bullets :– Bullets are used when there in no perticular sequence of text to be followed.

(b) Numbers :–Numbers are applied to list serialized item or steps of a work.

(c) Alphabet list :–A popular use of an alphabetical list in power point is for a second level list below a numbered or bulleted list. When you apply this list style, the first item in the list is prefaced with the letter "A", the second item is prefaced with the letter "B" and so forth.

Chapter 7.   Introduction to Internet

A. 1. (a),   2. (c),   3. (d),
     4. (c)   5. (c)

B. 1. Internet   2. communication
     3. modem   4. home
     5. hyperlink.

C. 1. (✓)   2. (✗)   3. (✓)
     4. (✗)   5. (✓)

D. 1. A hyperlink is the text or image that links one web page to another. It is a synonym to a hot link and sometimes called a hypertext connection.

2. A browser/web browser is a software application that enables a user to interact and display the text, image, sound and other related information on a web page.

3. The first web page of any website is called the homepage. It provides basic information about the website and the links to the different pages of the website.

4. A search engine is a software program that helps people find the information they are looking for online using keywords or phrases. Search engines are able to return results quickly-even with millions of websites online-by scanning the internet constinuously and indexing every page they find.

E. 1. (c) 2. (e) 3. (a)

4. (d) 5. (b)

F. 1. Internet is also called the Net. It is a world wide system of computer networks. It remain connected with all other networks all over the world, so it is also termed as network of networks.

2. **Two uses of Internet are :–**

(a) The main purpose of using Internet is communication. We can communicate on Internet in different forms like emails, social media, websites, blogs, chart and audio-video.

(b) E-commerce can also be done on the Internet where businesses sell online and people buy online and pay online.

3. Following are the basic requirements to connect the computer with Internet.

(i) A telephone or cable line or a dongle (Internet data card) for Internet connection by the Internet service provider (ISP).

(ii) A modem to connect the computer system with the telephone or cable line connection.

(iii) A software called browser such as chrome, firefox, etc.

4. World Wide Web (www) was internet in 1989. It was a revolution in the world of computing. It is the largest information system on Internet. It contains millions of websites that provide information in the form of text, animations, pictures and videos. The World Wide Web is an example of client and service technology.

Chapter 8. Programming Concepts with Scratch

A. 1. (d), 2. (a), 3. (a),

4. (c) 5. (b)

B. 1. Programming 2. Visual

3. Costumes 4. Sounds

5. back drop

C. 1. (✓) 2. (✗) 3. (✓)

4. (✗) 5. (✗)

D. 1. (d) 2. (e) 3. (b)

4. (a) 5. (c)

E. 1. (a) To launch scratch application, click on start.

(ii) Click on scratch.

2. File menu includes options to create new scratch project to load an existing project and to save the project on the computer. On left hand side, there remains a pane with 3 tabs-Code, costumes and sounds.

In the middle of it remains the large script pane and on right hand side exists the stage with sprites and Backdrops settings.

3. Code Panel :– This appears when you click on Code tab on left hand side. IT shows different blocks under various categories like motion, Events, Looks, Variables, Control, etc. Each block is like an instruction to the computer to do a task. You can click on Add Extension button that exists at the bottom to add more categories of blocks like Pen and Music.

Pen blocks help in drawign figures on the stage and Music blocks help in playing different instruments.

4. An event is any action that occurs at any point of time before, after or during

animation. For example, user clicks on stage, a key is pressed on the key board etc.

In Scratch, we can decide what to do when an event occurs. For example, if user clicks anywhere on the stage or on a sprite, it lets the sprite do something.

The main approach towards event handling is to identify the exact event block and a logical sequence of actions to be done.

5. Steps for changing sprite's costume are :—

Add an apple from Sprites library.

Click on Costumes tab to open Costume editor.

Set Fill Colour, Outline Colour and use the editing toolbar.

● ●

Chapter 1.   Evolution of Computer

A. 1. (a),   2. (b),   3. (a),

    4. (a),   5. (d)

B. 1. Tablet   2. 5000 years

    3. Difference Engine

    4. Micro Computers

    5. Super Computers

C. 1. **Counting Frome** — A counting frame is a manual aid to calculating that consists of beads or disks that can be moved up ad down on a series of sticks or strings with in a usually wooden frame. The abacus itself doesn't calculate; it's simply a device for helping a human being to calculate by remembering what has been counted.

    Airthmetic Machine— Airth-emetic machine also called Pascaline, the first calculator or adding machine to be produced in any quantity and actually used. The pascaline was designed and built by French mathematician-Philosopher Blaise Pascal between 1642 and 1644.

    2. **Laptop**—Laptop is small is size. It can be kept on the lap. It is operated by a battery and can be carried from one place to another easily.

    Tablet—Tablet is smaller and lighter than a laptop. It is controlled by touch screen. It can be used to listen music, watch movies, playgames, read e-books and so on.

    3. **Main frame Computer**—Mainframe computers are bigger in size. They are used in very big offices for analytical operations or bulk data processing. They move faster can be used by multiple user at the some time.

    Super Computer—They are larger than mainframe computers. They are the most advanced and fastest computers. They are also known as the fifth generation computers. They are used for defense operations and for scientific research.

D. 1. John Napier

    2. Herman Hollerith

    3. Blaise Pascal

    4. Charles Babbage

E. 1. The counting frame was developed about 5000 year ago. It was commonly known as the Abacus. It had rods and beads in it and was the first calculating device. It was used for simple mathematical calculations such as addition, subtraction and multiplication.

    2. In 1671, John Napier framed a device commonly kown as Napier's bones which was based on Rabdology. This device was more advanced than the abacus as it allowed the user to performs division and calculated square roots.

    3. Professor Howard Aiken made the first mechanical computer named Mark-I in 1944. It was the first computer in real sense. Nowadays, it is regarded as the world's first programmable computer.

    4. Types of Micro computers are :

    (i) Desktop Computers

    (ii) Laptop

    (iii) Tablets

    5. Charless Babbage further worked upon the Difference Engine and invented the Analytical Engine in 1833.

Chapter 2.   MS Word : Page Layout and Hyperlinks

A. 1. (a),   2. (a),   3. (b),

     4. (a),   5. (a)

B. 1. Custom   2. Portrait

     3. Header, Footer

     4. A4, A5

C. 1. (T)   2. (F)   3. (F)

     4. (T)   5. (T)

D. 1.   In MS-word, Page layout is a term that is used to describe how each page of your word document will appear when it is printed.

    2.   (i) Top Margin

       (ii) Bottom Margin

       (iii) Right Margin

       (iv) Left Margin

    3.   Page orientation is the direction in which a document appears in printed form. The two types of page orientation are Portrait and landscape. Our Exam-Scheme should best fit in landscape page orientation.

    4.   For inserting Blank Page :

       (i)   Place the cursor inthe document after which you like to insert a blank page.

       (ii)   On the insert tab, in pages group, click on the Blank Page button.

    5.   MS-Word has a special features called symbols and special characters. In which user can insert many different types of symbols in the document. Symbols and special characters used in writing, typing etc. that representes something other then a letter or number.

Chapter 3.   MS Word : Workingn with Tables

A. 1. (d),   2. (c),   3. (b),

     4. (c),   5. (d)

B. 1. (T)   2. (T)   3. (T)

     4. (T)   5. (T)

C. 1. Shift + End   2. Down Arrow

     3. Alt + End   4. Shift + Tab

     5. Shift + Delete 6. Tab

D. 1.   Table are used to display data in MS-Word. They are a grid of cells arranged in row and columns. They can present the data in an effective way clearly.

    2.   A table is mode up of rows and columns. The interesction of row and column is called a cell.

    3.   Tab, Shift + Tab, Ctrl + Tab

    4.   **For split a cell in a table :**

       (i)   Click in the cell that you would like to split.

       (ii)   Click on the layout tab.

       (iii)   In the Merge group, click on the split cells button. The split cells dialog box displays.

       (iv)   Enter the desired number of columns and rows into which you want to sprit the selected cell.

       (v)   Click on ok button.

    5.   **For Merging four cells :**

       (i)   Select the cells that you wish to merge.

       (ii)   Click on the Layout tab.

       (iii)   In the merge group, click on the merge cells button.

Chapter 4. Introduction to Spreadsheets and MS Excel

A. 1. (d),   2. (b),   3. (c),

     4. (b),   5. (a)

B. 1. Data   2. Column, Row

     3. Active   4. Cell pointers

     5. Workbook

C. 1. (T)   2. (F)   3. (F)

     4. (T)   5. (F)

D. 1. Ctrl + Home

     2. Shift + Space bar

E. 1. A electronic spreadsheet is defined as a large sheet which contains data and information in rows and column. The most powerful feature of a spreadsheet is that it automatically recalculates the result of mathematical formulas if the source data changes.

2. The selected cell is termed as the active cell or current cell. It is displayed with bold border that differentiates it from the rest of the cells.

3. Each excel file is called a workbook. It can hold several worksheets.

4. (a) It consists of commands that are repeatedly used like save, undo, Redo, Print, etc.

     (b) Cell range is a group of contiguous cells. A cell range name contains the cell address of the first cell, a colon and the last cell address.

5. A chart is a tool you can use in excel to communicate date graphically. Charts allow your audience to see the meaning behind the numbers, and the make showing comparisons and trands much easier.

Chapter 5. MS Power Point : Graphics

A. 1. (a),   2. (b),   3. (a),

     4. (d),   5. (a)

B. 1. Formatting, table presentation, pictorial

     2. Tables format   3. relation

     4. Design   5. Video

C. 1. A chart is the pictorial or graphical form to represent the data. It describes the relation between two or more sets of values in the presentation.

2. A smart art graphic is a visual representation of any information that is used to communicated effectively any message or idea. It allows to communicate information with graphics instead of just using text.

3. Video can be inserted from a file or online in the slide.

4. Icons and 3D models remain available with powerpoint 2019 inbuilt form. Icons are used to communicate visually and 3D models are objects that move in 3D space with height, with and depth.

D. 1. Slide layouts are the systematic arrangement and combination of all the objects on a slide. They contain formatting of text, presentation of tables, pictorial chart, smart Art graphics, positioning of pictures, online pictures, video, Icons and 3D Models.

Two basic layout are :

     (a) **Title slide**— This is applied at the beginnign of your presentation or to divide sections of your presentation.

     (b) **Title and Content**—This functions as default. It is most commonly used

slide layout and used to give topic and its content.

2. (i) On title and content slide layout, click on table icon. Then insert table dialog box displays.

    (ii) Enter the required number of columns and click on OK button.

    Or

    (i) Alternatively, click on insert tab.

    (ii) In Tables group, click on Table button.

    (iii) Insert table option from teh list.

3. A smart Art graphic is a visual representation of any information that is used to communicate effectively any message or idea. It allows to communicate information with graphics instead of just using text.

4. Icons and 3D models remain available with powerpoint 2019 inbuilt form. Icons are used to communicate visually and 3D models are objects that move in 3D space with height, width and depth, and depth as third dimension.

5. (a) This functions as default. It is most commonly used slide layout and used to give topic and its contest.

    (b) A blanks side layout is mostly used when a picture or other graphic object that requires no further information, will be inserted to cover the whole side.

Chapter 6.   MS Power Point Animations and Transitions

A. 1. (a),   2. (b),   3. (c),

    4. (c),   5. (d)

B. 1. transition

    2. on mouse overevent

    3. Spellcheck   4. left

    5. Ctrl + k

C. 1. Double-click the slide

    2. Press Ctrl + C

    3. Use the right arrow

    4. Press Ctrl + D

    5. Press the Delete key

D. 1. Animations in powerpoint are special visual or sound effects that can be applied to elements present on a slide such as text, shape, image, icon etc.

    2. Power point provides four types of animations : Entrance, Emphasis, Exit and Motio paths. An Entrance animation determines the way in which an object appears on a slide. An emphasis animation does something to draw attention to an object. An exit animation determines the way in which an object leaves a slide. The process of animating one or more objects moving along a defied three dimensional path through the scene in known as motion path.

    2. The transitions in power point are special visual effects applied to a complete slide. The transitions effects can only be see as one slide moves to the next.

    4. Steps for spell check in power point are :

        (i) Press F7.

        (ii) Choose the Review tab and then click the spelling button.

    5. To print; do the following steps :

        (i)   Click the Microsoft Office button. A menu displays.

        (ii) Choose print.

        (iii) Click print preview.

        (iv) Click the down arrow next to the print what field in the page setups

group and then what you want to print. A preview displays onscreen.

(v) Click the print. The print dialog box displays.

(vi) Click the down arrow next to the color/Gray scale field to select

whether you like your slides to print in color, grayscale or black and white. When you are using a black and white printer, choose black and white. You will use less ink or toner.

(vii) Click Ok.

Chapter 7. Internet Browser and Searching

A. 1. (d),   2. (b),   3. (d),

4. (a),   5. (a)

B. 1. Internet   2. Web browser

3. www   4. Enter

5. www

C. 1. Internet is very cheap and easy way to get online education. Nowadays online lectures and tutorials on different subjects or topics easily remain available on internet and we can also download these lectures or tutorials into or own computer and can listen these leactures repeatedly.

2. Video conferencing is a type of online meeting where two or more people engage in live audio-visual call.

3. A Internet browser is an application software. It is used to open websites.

D. (i) A Internet browser or web browser is a software application for retrieving, presenting and traversing information resources on the world wide web.

(ii) Types of Internet Browser are:

Skype, Mozilla Firefox, Safari, Googlechrome, Internet explorer, Edge etc.

(iii) See Question No. 1.

(iv) Searching Means to find the information of any topic on the internet. It is an objective and strategy based exploration.

Chapter 8. Programming With Scratch-I

A. 1. (c),   2. (a),   3. (a),

4. (a),   5. (c)

B. 1. block-based   2. sprite

3. Paint   4. Script area

5. glide

C. 1. (F),   2. (T),   3. (F),

4. (T),   5. (T),   6. (F)

D. 1. (c),   2. (a),   3. (b),

4. (e),   5. (d)

E. 1. To start a new script on scratch :-

* Type here to search box and double-click on scratch desktop option.

* A window with scratch Desktop in the title bar will display.

2. To open a previously saved scratch file on the computer do the following steps :

(i) Select the Load from your computer, option present in file table. The open dialog box will display.

(ii) Browse and choose the file you desire to open and click on open.

(iii) The chosen file will open.

3. The main components of scratch windows are :

Block palette, script area, stage, sprite

list, tools etc.

4. Cursor tool remain on the top right corner of the scratch window. There are three cursor tools.

    (a) **Full screen control** :- When this button is clicked, the stage area expands on the full computer screen.

    (b) **Increase script button** :- This button increases the script area and decreases the stage area.

    (c) **Decrease script button** :- Decrease Script button brings the script area and stage are back to their normal size after their size has been changed using the increase script button.

5. Motion button is the first block category in Block Menu. It can be identified by the dark blue coloured circle with the text motion written below it. As the name motion block is applied to add motion to the sprite like rotating, moving, gliding etc. In order to alter the value of a block the cursor is placed on the existing value and it is replaced by the new value.

● ●

MS Word: Mail Merge

A. Tick (✓) the correct answer.

1. (c) 2. (a) 3. (a) 4. (c) 5. (d)

B. Fill in the blanks.

1. Sender 2. First Record, Last Record

3. Merge Field 4. Feed 5. Data Source

C. Tick (✓) the correct statement and cross (✗) out the wrong one.

1. (✓) 2. (✓) 3. (✓) 4. (✓) 5. (✗)

D. Answer the following questions.

1. Mail merge is a handy feature that allows users to create documents (letters, emails, faxes, and so on) that are fundamentally identical but contain unique elements such as the recipient's name, address, contact number, city, state, and so on.

2. (i) Main Document: It is the document which has the common data that needs to be sent to multiple recipients.

(ii) Merged document: This is the final document, which is created by combining data source fields with the primary document.

3. Place the cursor where you want to merge a field in the main document. When you click the Insert Merge Field button on the Mailings tab of the ribbon's Write and Insert Field section, a list of fields from the specified data source appears.

Click on the required field to be merged. Repeat this process till you merge all the fields.

4. a. Select the Mailings tab in MS Word and then the Start Mail Merge button. A selection of options is shown. Select the option for Step-by-Step Mail Merge Wizard.

b. The Mail Merge pane will appear on the right side of the Word document window. You can choose the sort of document you wish to generate here. Select Letters, for example, and then click Next: Starting Document at the bottom of the pane.

c. Choose Use the current document option in Select starting document section.

Click on Next: Select recipients at the bottom of the pane.

Select Data Source

d. You can choose from a variety of choices for importing the recipient list in this phase.

To import a list of desired recipients, click Browse.

e. Click on Browse to import desired recipients list. The Select Data Source dialog box appears.

f. Select the data source here and click on Open button.

5. Printing Envelopes

When you use mail merge to create letters, you'll almost certainly need to send paper copies as well. You'll need to print envelopes for this. To print envelopes, follow these steps:

a. Under Mailing tab, in Create group, click on Envelopes. The Envelopes and Labels dialog box appears.

b. Indicate the delivery and return addresses. (If you're using MS Outlook for your contacts, you can import delivery addresses from default contact lists.)

c. You can setup Envelope options by clicking on Feed button. An Envelope Options dialog box appears.

d. By going to the Envelope Options tab, you may change the envelope size and address text formatting.

e. The Printing Options tab allows you to choose the printer feed method and direction.

f. Click OK button in Envelope Options dialog box.

g. Finally, in the Envelopes and Labels dialog box, click the Print button.

Assertion Reason Questions

1. (a)

2. (b)

Source Based Question

1. Mail Merge is a handy feature that allows users to create documents that are fundamentally identical but contain unique elements such as the recipient's name, address, contact number, city, state and so on.

2. It allows the user to quickly produce a document for several recipients by just selecting recipient's names and document types.

3. Personal information for the corresponding recipient will be automatically added to the document, saving time by preventing users from having to write each recipient's personal information in every document.

<div align="center">

Chapter-2

MS Excel: Functions and Formulas

</div>

A. Tick (✓) the correct answer.

1. (a) 2. (a) 3. (a) 4. (a) 5. (d)

B. Fill in the blanks.

1. Windows 2. Worksheets and charts

3. clear contents 4. Insert>Comments

5. Auto Sum

C. Tick (✓) the correct statement and cross (✗) out the wrong one.

1. (✓) 2. (✗) 3. (✓) 4. (✓) 5. (✓)

D. Answer the following questions.

1. a. Font name b. Font size c. Allignment d. wrap text e. merge & center

2. A formula is an equation that performs a calculation. Like a calculator, Excel can execute formulas for addition, subtraction, multiplication and division.

3. Type an equal sign (=) and then type a function for example = SUM for getting the total sales. Type an opening parenthesis (select the range of cells, and then type a closing parenthesis).

4. Border tab is used to put a border in different styles around a single cell or a range of cells.

a. Click on Border tab.

b. Now, click on the required option.

- **Style :** Select any one of the line style from the list.

- **Color :** Click on the drop-down arrow and select the desired colour.

- **Presets and Border :** Click on the buttons (as per your requirement) under presets or Border. This displays a line with your setting in the sample region.

5. The Alignment tab is where you place text and numbers in cells, modify their orientation and specify the text control.

6. To perform basic mathematical operations, arithmetic operators are used. For example, + (plus sign) for addition, − (Minus sign) for subtraction, * (asterisk sign) for multiplication, / (forward slash) for division, % (Percentage sign) for percentage and (^) carat for exponents.

7. For matting text or number can make them appear more visible especially when you have a large worksheet. Changing default formats includes things like changing the font colour, style, size, text alignment in a cell, or apply formatting effects.

Assertion Reason Questions

1. (b)

2. (b)

Case Based Question

1. an equal sign is must to be at the start of each formula.
2. Rahul used plus (+) sign to perform addition on the computer.
3. Rahul used multiplication (*) sign to perform multiplication on the computer.

<div style="text-align:center">Chapter-3</div>

Excel: Using Charts to Present Data MS

A. Tick (✓) the correct answer.

1. (b) 2. (b) 3. (d) 4. (a) 5. (b)

B. Fill in the blanks.

1. fill 2. Items 3. Tools 4. Interconnected

C. Tick (✓) the correct statement and cross (✗) out the wrong one.

1. (✓) 2. (✗) 3. (✗) 4. (✓) 5. (✓)

D. Answer the following questions.

1. A chart is a tool you can use in Excel to represent data pictorially. Charts allow your audience to see the meaning behind the numbers, and they make representing comparisons and trends much easier.

2. **Column Chart**

   The information is shown in vertical columns in this chart. It typically displays categories along the horizontal axis and values along the vertical axis. It allows you to compare two or more items in a single category of data.

   Line Chart

   A line graph (Sometimes known as a line chart or run chart) is a basic yet effective tool for displaying changes over time. In this chart, data is plotted in the form of line with connecting dots. It displays categories along the horizontal axis and values along the vertical axis.

   Pie Chart

   In this kind of chart, data is displayed in the form of circles that shows the size of items in one data series, proportional to the sum of the items.

   Bar Chart

   In this kind of chart, data is displayed in the form of horizontal bars. It displays categories along the vertical axis and values along the horizontal axis.

   Area Chart

   An area chart is a primary Excel chart type, with data series plotted using lines with a filled area below. Area charts are a good way to show magnitude of change over time.

   Funnel Chart

   A funnel chart is a visual representation of progress across certain stages. This chart should have at least 3 stages to show.

3. A chart, created on the worksheet, can be moved and resized.

   To move a chart on the worksheet,

   a. The mouse pointer transforms into a moving handle when you point it anywhere on the chart.

   b. Click and drag the chart to new location.

4. To change the chart type, follow these steps:

   a. Select the chart on the worksheet. The Chart Tools (having Design and Format tabs) appear on Ribbon.

   b. Click on Design tab.

   c. Change the chart type by clicking on the Change Chart Type button in the Type group.

   d. Select the new chart type in the left pane and its sub-type in the right pane under the All Charts tab.

   e. Click on OK button.

5. To move a chart on the worksheet,

   a. The mouse pointer transforms into a moving handle when you point it anywhere on the chart.

   b. Click and drag the chart to new location.

- To resize a chart on the worksheet, put mourse cursor on the corner of the chart and drag it diagonally.
- To printout of the chart, select the chart and press Ctrl+P.

6. The steps to insert an image in the worksheet are:
   a. Select any cell.
   b. Click the Pictures tool in the Illustrations group on the Insert Tab. The dialog window for inserting a picture appears.
   c. Locate the required image and select it.
   d. Click on Insert button.

   The selected image is inserted in the worksheet.

Assertion Reason Questions

1. (c)
2. (b)

Case Based Question

1. By using Area chart.
2. By using Pie chart
3. By using Bar chart

Chapter-4

Image Processing Basics with GIMP

A. Choose the correct answer.
1. (d) 2. (d) 3. (a) 4. (a) 5. (c)

B. Fill in the blanks.
1. spray paint 2. Ellipse select 3. Layers
4. scale tool 5. smudge tool

C. Tick (✔) the correct statement and cross (✘) out the wrong one.
1. (✔) 2. (✔) 3. (✔) 4. (✔) 5. (✘)

D. Answer the following questions.
1. GIMP is a freeware and open source graphic editing tool. GIMP is an acronym of GNU Image Manipulation Program. This software is used for image editing and retouching, free form drawing, converting images into different formats and for more specialised work.

2. Do yourself

3. **Menu Bar :** It is at the top of the screen and contains all the menus of the GIMP Program.

   Toolbox: It contains all the tools to work with the images and drawings.

   Docks or Dialogs Area: This section comprises several dialog boxes or panels that are required for various activities to be completed. Tool Options panel is a popular panel that displays options for the tool selected in the Toolbox.

   Canvas or Image: Canvas is the working area to create a new drawing or image. In its place there could be an already existing image opened for processing.

   Status Bar: It is present at the bottom of the window just below the canvas. It has zoom options. It also displays cursor position and name of the currently active layer.

4. **Rounded corners:** This property sets the roundedness of the corners of a rectangular selection.

   Opacity: This property sets the transparency/opacity of the colour.

   Feather edges: Selection tools have this property to define how much part around the selection would be little blur.

5. Filters are special effects that can be applied to an image or a selected region. Filters enhance the look of the image. Filters are organized in several categories available as submenus under the Filters menu.

   To apply a filter:

   Select the desired region in the image on which filter is to be applied.

   Select desired filter from the set of submenus under Filters menu.

Assertion Reason Questions

1. (a)
2. (b)

Case Based Question

1. GIMP is a freeware and open source graphic editing tool.
2. GIMP is an acronym of GNU image manipulation program.
3. This software is used for image editing and retouching, free from drawing; converting images into different formats and for more specialised work.

Chapter-5

Internet: Communication and Social Platforms

A. Choose the correct answer.
   1. (c) 2. (d) 3. (c) 4. (a) 5. (c)

B. Fill in the blanks.
   1. online chatting 2. AAMOF 3. chat
   4. Face-to-face 5. blogger

C. Answer the following questions.

1. Being online means having a computer connected to the internet.
2. Video conferencing allows you to communicate between two or more people at two or more geographically distant places via audio and video transmission.
3. A blog is a online personal diary or informative article on a specific topic. It can be updated frequently. The articles that are uploaded on a blog are called posts. It is a place where you express your thoughts and ideas to the world. A blog is usually open to the public, which means that anyone can read it.

   Post can be text, pictures, audio, video, and so on.
4. • It eliminates the possibility of tickets getting lost or being sent at the wrong address.
   • The process of issuing tickets is much more efficient.

   • It reduces booking expense by eliminating the need for printing and mailing paper documents.

5. **Advantages**

   The following are some of the advantages of online shopping:
   • It can be done round the clock.
   • Online shopping is convenient.
   • Easily pay through credit/debit card while shopping online.
   • You can avail discount coupons and get a thing at a lower rate while shopping online.
   • The item will be delivered directly to your home.

   Disadvantages

   The following are some of the disadvantages of online shopping:
   • User can't avail to offer warranties and guarantees if things purchased online.
   • One cannot feel or touch items.
   • Despite how secure the website promises to be, a key disadvantage is the security of credit cards.
   • Returning an item online is also a cumbersome process than in local stores. You need to send the product and wait for its arrival after being changed or wait for the amount to get credited in your bank account.

Assertion Reason Questions

1. (a)
2. (a)

Case Based Question

1. He recently came to know about the Internet from his teacher, where his teacher informed him that Internet offers a variety of services that make our work faster and easier.
2. Do yourself
3. Google, Yahoo! and Bing.

Chapter-6

Programming with Scratch

A. Choose the correct answer.

1. (d) 2. (c) 3. (b) 4. (d)

B. Fill in the blanks.

1. 18 2. Pen block 3. sound 4. import

5. appearance

C. Tick (✔) the correct statement and cross (✘) out the wrong one.

1. (✔) 2. (✘) 3. (✘) 4. (✘) 5. (✔)

D. Answer the following questions.

Motion Block

1. The blocks that control the movement of a sprite are found in the Motion Block.

   They are blue in colour. There are currently 18 Motion blocks. 15 stack blocks and 3 reporter blocks.

Looks Block

1. Looks block are color- coded purple and are used to control a appearance of sprites and stage.

2. In Scratch, there are 20 Looks blocks.

2. A variable is a changeable value recorded in scratch's memory variables can only hold one value at a time. Clicking on an isolated variable in the scripts area displays a small bubble reporting the value of the variable. Scratch does not allow variables to be created by a script as it runs. Instead, variables are created with the a "Make a Variable" button in the Block Palette. Variables are used whenever a project required a value to be stored and remembered such as a score in a game.

3. Operators contain blocks like:

   (a) Arithmetic Operators (+, −, *, /)

   (b) Relational Operators (<, >, =)

   (c) Boolean Operators (and, or, not)

   There are 18 Operators blocks in Scratch.

4. Scratch also has a sound gallery. We can import the sounds by clicking on the Import button from the Sounds tab. If we do not find a suitable sound, then we can also record the sound by clicking on the Record button.

5. Do yourself

6. Yes, we can animate the backgrounds.

Assertion Reason Questions

1. (c)

2. (a)

Case Based Question

1. Sensing blocks are one of the eight categories of Scratch blocks. They are color coded lightblue, and are used to detect things.

2. They can be used to determine the location of the mouse - pointer, its distance from other Sprites, and whether a Sprite is touching another Sprite.

3. In, Scratch, there are 18 sensing blocks.

Chapter-7

Artificial Intelligence: Introduction

A. Tick (✔) the correct answer.

1. (d) 2. (d) 3. (d) 4. (b) 5. (d)

C. Tick (✔) the correct statement and cross (✘) out the wrong one.

1. (✔) 2. (✔) 3. (✘) 4. (✘) 5. (✔)

1. (a) Human Intelligence:

   Human intelligence is the intellectual capability of humans, which is make a complex cognitive feats and high levels of motivation and awareness.

   (b) Artificial Intelligence

   Al is intelligence demonstrated by machines, as apposed to intelligence of humans and other animals.

2. The phrase "Artificial Intelligence" was coined by John McCarthy (1927-2011), an American computer scientist and cognitive scientist. He was a pioneer in the field of artificial intelligence. Along with Alan Turing,

Marvin Minsky, Allen Newell, and Herbert Simon, John McCarthy is considered one of the "founding fathers" of artificial intelligence.

3. Artificial intelligence (AI) refers to a machine's ability to do cognitive functions such as thinking, perceiving, learning, problem-solving, and making decisions. Originally envisioned as a device capable of imitating human intelligence. With amazing advancements in data gathering, processing, and computation power, intelligent systems may now be deployed to take over a range of jobs, enable communication, and boost productivity.

4. AI isn't a well-defined technology, and there isn't a single description that everyone agrees on. It's more of a catch-all word for data analysis and pattern detection tools.

   Artificial Intelligence (AI) is a technology that has been around since the 1950s. Some markets, industries, and businesses are further advanced than others, because AI is still in its early stages of development. There are many opportunities for additional development and enhancement in terms of both the range of possible applications and the quality of most existing implementations.

5. Do yourself

Assertion Reason Questions

1. (a)
2. (b)

Case Based Question

1. John McCarthy
2. Artificial intelligence.
3. AI refers to the simulation of human Intelligence in machines that are programmed to think like humans and mimic their actions.

Chapter-8

Animation with TupiTube

A. Tick (✔) the correct answer.
   1. (a) 2. (d) 3. (c) 4. (c) 5. (a)

B. Fill in the blanks.
   1. sences 2. frame 3. drawings 4. animation 5. Tween

C. Tick (✔) the correct statement and cross (✘) out the wrong one.
   1. (✔) 2. (✘) 3. (✔) 4. (✔) 5. (✔)

D. Answer the following questions.

1. Animations are an essential element of multimedia. They make the content more entertaining, attractive, and useful. In this chapter, we will learn the fundamentals of animation with the help of a program called TupiTube.

2. Frame-by-frame animation – You can choose to make a different drawing for each frame here. It is a time taking process and requires a lot of hard work.

   Tween – We create one drawing in this process and then further frames of animations are generated automatically

3. Let us see how we can move the drawing around.
   a. Consider same rectangle you had drawn earlier or open a new project and draw a new rectangle.
   b. Select Motion Tween from the Tweening dropdown in the Toolbox.
      The Tween Properties pane will open up on the right-hand side of the stage.
   c. Click on the + sign beside the text box and rename the tween to tween02.
   d. Press Enter after clicking in the Text Box.
   e. Click on the rectangle to select it.
   f. Select Set Path Properties radio option in the Properties pane. A green dot appears in the centre of the rectangle.
   g. Click on button to apply the tween.
   h. To observe your animation, click on the Player Tab.

4. Go to File menu > Save option to save your TupiTube project.

5. Do yourself

Assertion Reason Questions

1. (a)
2. (a)

Case Based Question

1. Animation is a set of several drawings kept in a sequence where these drawings are passed in front of eyes at a very high speed.

2. Multiple scenes make up an animated story.

3. TupiTube allows you to create as many scenes as you want. Each scene has its own frames and layers. All the scenes together make the whole story.

■ ■

Computers and Computer Languages

A. Tick (✓) the correct answer.

1. (a) 2. (d) 3. (c) 4. (a) 5. (d) 6. (a) 7. (b)

B. Fill in the blanks.

1. Software 2. program 3. system software
4. operating system 5. first generation
6. Network topology

C. Tick (✓) the correct statement and cross (✗) out the wrong one.

1. (✗) 2. (✓) 3. (✗) 4. (✓) 5. (✓)

D. Match the following:

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

3. Compiler v/s Interpreter

Compiler	Interpreter
• A compiler takes the entire program in one go.	• An interpreter takes a single line of code at a time.
• The compiler generates an intermediate machine code.	• The interpreter never produces any intermediate machine code.
• The compiler is best suited for the production environment.	• An interpreter is best suited for a software development environment.
• The compiler is used by programming languages such as C, C++ (#, Scala, Java, etc.)	• An interpreter is used by programming languages such as Python, PHP, Perl, Ruby, etc.

4. Enlist some distinct features of

(a) **Embedded Computers**

An embedded computer also called microcontroller is a single-chip computer that is integrated into other devices and is dedicated to functions of that device. Today, we see embedded computers in machines like televisions, washing machines, cameras, telephones, dishwashers, microwave ovens, cars, etc.

(b) **Supercomputers**

These are the fastest type of computers with very high memory capacities and very large computing power. These are

E. Answer the following questions:

1. Computers can be of the following types based on different performance factors:
   • Microcomputers • Mini Computers
   • Embedded Computers • Game Consoles
   • Mainframe Computers • Mobile Computers
   • Supercomputers

2. **Computer Software**

Software is a collection of programmes with no physical presence. They are stored in digital form within computer memory to effectively access or operate a computer. Software is classified into two types:

1. System Software
2. Application Software

extremely powerful computers. These are capable of performing billions of instructions per second. Supercomputers have a huge array of CPUs and GPUs (Graphical Processing Units) — a processor that performs rapid mathematical calculations (used especially for image processing).

(c) **Microcomputers**

Microcomputers are those computers that have their CPU (Central Processing Unit) on a single chip. Single chip CPUs are also called microprocessors. Hence we can also say that microcomputers are the computers that have microprocessors.

(d) **Mainframe Computers**

These are large computers designed to handle huge volumes of data at very fast processing speeds. Mainframe computers have large number of CPUs, huge memory capacity, enhanced software support and much more. These are used in large organizations for critical applications such as census, industry and consumer statics, transaction processing etc.

5. An assembler is a program that takes basic computer instructions and converts them into a pattern of bits that the computer processor can use to perform its basic operations. Some people call these instructions assembler language and others use the term assembly language.

6. Assembly or assembler language was the second generation of computer language. By the late 1950s, this language had become popular. Assembly language consists of letters of the alphabet. This makes programming much easier than trying to program a series of zeros and ones.

7. A fifth-generation programming language (5GL) is any programming language based on problem-solving using constraints given to the program, rather than using an algorithm written by a programmer. Most constraint-based and logic programming languages and some other declarative languages are fifth-generation languages.

Assertion Reason Questions

1. (b)
2. (c)

Case Based Question

1. Software is a collection of programmes with no physical presence.
2. They are stored in digital form within computer memory to effectively access or operate a computer.
3. Software is classified into two types:
   a. System Software b. Application Software

Chapter-2

Binary Number System

A. Tick (✔) the correct answer.
   1. (b) 2. (a) 3. (a) 4. (c) 5. (a)
B. Fill in the blanks:
   1. decimal number 2. tenth power
   3. binary number 4. base-2 5. machine language
C. Tick (✔) the correct statement and cross (✘) out the wrong one.
   1. (✘) 2. (✔) 3. (✔) 4. (✔) 5. (✔)
D. Answer the following questions:
1. A binary number system is one of the four types of number systems. In computer applications, binary numbers are represented by only two symbols or digits, i.e. 0 (zero) and 1(one). The binary numbers here are expressed in the base-2 numeral system. A binary digit, or bit , is the smallest unit of data in computing. It is represented by a 0 or a 1. A single binary number is called a Binary digit or bit. Group of 8 bits is called a byte.

2. A binary digit, or bit , is the smallest unit of data in computing. It is represented by a 0 or a 1.

3. The successive division method is used to convert decimal to binary integers.
   • In this method, we simply divide the decimal number by 2.
   • The quotient becomes the dividend.
   • The remainder, which will always be 1 or 0, becomes one bit of the binary number, least significant digit first.
   • The last quotient will always be 0, the last remainder always 1.
   • Division continues until the quotient is 0.

4. A computer operates using machine language. The binary language is also known as "machine language" because it meets the requirement of using two distinct symbols to represent two states of electricity. The binary system is applied internally by almost all latest computers and computer-based devices

because of its direct implementation in electronic circuits using logic gates.

5. 10100011

6.

2	200	0
2	100	0
2	50	0
2	25	0
2	12	0
2	6	0
2	3	0
	1	

$(200)_{10} = (11001000)_2$

Assertion Reason Questions

1. (d)
2. (a)

Case Based Question

Do yourself.

Chapter-3

Photoshop 2021: An Introduction

A. Tick (✔) the correct answer.

1. (c) 2. (a) 3. (d) 4. (a) 5. (a)

B. Fill in the blanks.

1. Thomas, John Knoll 2. gradient 3. Zoom 4. paint bucket tool 5. crop tool

C. Tick (✔) the correct statement and cross (✘) out the wrong one.

1. (✔) 2. (✘) 3. (✔) 4. (✘) 5. (✔)

D. Answer the following questions:

1. Creating a New File
    1. File menu → New option. The new document dialog box appears.
    2. Specify the details and click on create button.

2. (a) Brush Tools: Several types of Brush tools are tucked away in the Tool Options panel.
    To view all tools, click the Brush tool and look down to the Tool Options panel to see the additional Brush tools, as shown in the figure.

(b) **Eraser Tools:** Three Eraser tools appear in the Tool Options panel, as shown in the figure.

Eraser: The Eraser tool paints a colour on a photo if you're erasing on the Background layer. The current background colour is used when you paint with this tool on the Background layer. If your photo appears on a layer, the Eraser tool behaves like a normal eraser, removing pixels as you drag across a photo.

Background Eraser: When you open a photo in the Editor, the photo appears on a background. Certain objects and types are added in layers that appear above the background. Two things happen when you make your first edit with this tool: The background is converted to a layer, and as you drag the cursor, the image data is removed from the layer.

Magic Eraser: The Magic Eraser tool sort of combines the Quick Selection tool and the Eraser tool. When you click and draw on a background, the area where you click is selected just as with the Quick Selection tool. Also, the background is converted to a layer, and the selected area is removed from the photo.

3. **Magic Wand Tool :** The Magic Wand is one of Photoshop's most powerful selection tools. Unlike other tools that make you manually select what you want, the Magic Wand tool does it automatically. Photoshop's Magic Wand is handy for selecting the background of a photo, or an object that's entirely one colour.

4. Menu bar (at the very top) shows the File, Edit, Image, and other menus that give you access to a variety of commands, adjustments, and panels.

5. Crop tool: The Crop tool removes the part of an image surrounding the selection. Crop to remove distractive background elements and create a focus on your desired object in the image. When you crop an image, by default,

the resolution remains the same as the original image. Select the Crop tool in the Photoshop toolbox (also known as the Tools bar). Its icon looks like two intersecting right angles. To locate it quickly, just press the letter C on your keyboard. To make a crop selection, hold down the left mouse button and drag a rectangle across the image.

6. Magic Wand Tool : The Magic Wand is one of Photoshop's most powerful selection tools. Unlike other tools that make you manually select what you want, the Magic Wand tool does it automatically. Photoshop's Magic Wand is handy for selecting the background of a photo, or an object that's entirely one colour.

You can access the Magic Wand Tool by typing "W." If you don't see the Magic Wand Tool, you can access it by clicking on the Quick Selection Tool and selecting the Magic Wand Tool from the dropdown.

Assertion Reason Questions
1. (b)
2. (e)

Source Based Question
1. The Move tool lets you cut and drag a pixel selection to a new location in the photo.
2. The Move tool is the only Photoshop tool that can be used even when it's not selected in the Tool bar. Just hold down CTRL on a PC or COMMAND on a Mac, and you'll instantly activate the Move tool no matter which tool is currently active.
3. Do yourself

Chapter-4

Introduction to HTML

A. Tick (✔) the correct answer.
   1. (c) 2. (d) 3. (c) 4. (d) 5. (b)
B. Fill in the blanks:
   1. Do yourself
   2. Notepad in computer
   3. Hypertext Markup language
   4. opening tag, closing tag
   5. Google Chrome, fire fox
   6. /
C. Tick (✔) the correct statement and cross (✘) out the wrong one.
   1. (✔) 2. (✘) 3. (✔) 4. (✘) 5. (✔)
D. Answer the following questions:
1. HTML is an acronym which stands for Hyper Text Markup Language. It is the standard markup language for creating Web pages. HTML describes the structure of a Web page and consists of a series of elements. These elements tell the browser how to display the content.
2. The tag specifies bold text without any extra importance.
3. The tag specifies bold text without any extra importance.
   The <br> tag is an empty tag which means that it has no end tag. The <br> tag inserts a single line break. It is useful for writing addresses or poems.
4. Header tags, also known as heading tags, are used to separate headings and subheadings on a web page. HTML headings are defined with the <h1> to <h6> tags. <h1> defines the most important heading. <h6> defines the least important heading.
   Example: (change the text in the picture to heading 1,2,3,4,5,6)
   <h1>Heading 1</h1>
   <h2>Heading 2</h2>
   <h3>Heading 3</h3>
   <h4>Heading 4</h4>
   <h5>Heading 5</h5>
   <h6>Heading 6</h6>
5. Container Element: When describing HTML (Hypertext Markup Language), a container tag is an HTML tag with both an opening and closing tag. For example, and is a container tag used to make the text bold.
   Empty elements: Some HTML elements have no content (like the <br> element). These elements are called empty elements. Empty elements do not have an end tag!

6. <html>
   <head>
   <title> My First HTML Project </title>
   </head>
   </body>
   HTML stands for Hypertext Markup Language. This makes the text bold
   </body>
   </html>

Assertion Reason Question
   1. (a)   2. (e)

Source Based Question
1. HTML is an acronym which stands for Hyper Text Markup Language.
2. It is the standard markup language for creating Web pages. HTML describes the structure of a Web page and consists of a series of elements. These elements tell the browser how to display the content.
3. The first version of HTML was written by Tim Berners-Lee in 1993. Since then, there have been many different versions of HTML.

Picture Based Question
1. Do yourself
2. Do yourself

Chapter-5

Website Designing Using HTML

A. Tick (✔) the correct answer.
   1. (a) 2. (d) 3. (c) 4. (a) 5. (b)
B. Fill in the blanks.
   1. Comments 2. description list 3. ordered 4. bref 5. internal link
C. Tick (✔) the correct statement and cross (✗) out the wrong one.
   1. (✔) 2. (✔) 3. (✗) 4. (✔) 5. (✗)
D. Answer the following questions:
1. The comment tag is used to insert comments in the source code. Comments are not displayed in the browsers. You can use comments to explain your code, which can help you when you edit the source code at a later date.
2. In HTML, there are two kinds of links:
   1. External Link: External HTML Links is linked to external web page. This link is may be absolute path or relative link path. <a> tag is used for anchor name which is referred link to another web page. External links are a great way to drive a webpage one to another and useful for surfing many webpages in website.
   2. Internal Link: HTML internal link is linked within the same web page. This link can be an absolute path or relative path. HTML internal link name is followed by the hash sign(#). You have to assign an id to refer section of your page, which is referred to as an internal link to the same page.
3. Do yourself
4. Images can be easily inserted at any section in an HTML page.
   To insert image in an HTML page, use the <img> tags. It is an empty tag, containing only attributes since the closing tag is not required. Just keep in mind that you should use the <img> tag inside <body>... </body> tag
5. The HTML anchor tag defines a hyperlink that links one page to another page. It can create hyperlink to other web page as well as files, location, or any URL. The "href" attribute is the most important attribute of the HTML <a> tag.
6. Ordered List <ol> Tag:
   The HTML <ol> tag defines an ordered list. An ordered list can be numerical or alphabetical. It is used when the items must be in a particular order.
   Unordered List <ul> Tag
   A bulleted list is an unordered list. It is used when the items are not in any particular order.

Assertion Reason Questions
   1. (a)   2. (b)
Case Based Question
Do yourself
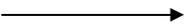
Chapter-6

Flowcharts and Algorithms

A. Tick (✔) the correct answer.
   1. (b) 2. (b) 3. (a) 4. (b) 5. (d)

B. Fill in the blanks:
   1. algorithms 2. computer programes
   3. flow chart 4. arrows 5. man

C. Tick (✔) the correct statement and cross (✘) out the wrong one.
   1. (✘) 2. (✔) 3. (✔) 4. (✔) 5. (✔)

D. Match the following:
   1. (e) 2. (c) 3. (d) 4. (b) 5. (a)

E. Answer the following questions:

1. An algorithm is simply a set of steps used to complete a specific task. They're the building blocks for programming, and they allow things like computers, smartphones, and websites to function and make decisions.

2. A flowchart is a diagrammatic representation of an algorithm, in which different steps are shown as symbols of different shapes connected by arrows. The arrows are responsible for the direction of flow of the program.

3. Limitations of Flowcharts
   A few disadvantages of Flowcharts are as follows:
   1. Difficulty in presenting complex programs and tasks.
   2. No scope for alteration or modification.
   3. Reproduction becomes a problem.
   4. It's a time-consuming process.
   5. Difficult to understand for people who don't know flowchart symbols.

4. 1. It is a step-wise representation of a solution to a given problem, which makes it easy to understand.
   2. An algorithm uses a definite procedure.
   3. It is not dependent on any programming language, so it is easy to understand for anyone even without programming knowledge.
   4. Every step in an algorithm has its own logical sequence so it is easy to debug.
   5. By using algorithms, the problem is broken down into smaller pieces or steps hence, it is easier for programmers to convert it into an actual program.

5.

Symbol	Name	Function
(oval)	Start/End	An oval represent a start or end point
(arrow)	Arrows	A line is a connector that shows relationships between the representative shapes
(parallelogram)	Input/Output	A parallelogram represents input or output
(rectangle)	Process	A rectangle represents a process
(diamond)	Decision	A diamond indicates a decision

6. a. Easy to make: Experts knowing flowchart symbols can easily make the diagram without much difficulty. Since a good diagram must simply represent the whole process thus it is the task of an expert to summarize and show the task in a unique way that would help in further prompt decisions.

b. Communication becomes effective and easy to understand: As everything is recapitulated by the expert in such a way that the user of the flowchart can easily understand and give possible feedback, thus communication becomes very effective. Users can now make further changes in the technique or implement new ones.

Assertion Reason Question

1. (a)
2. (b)

Case Based Question

Do yourself.

Chapter-7

Future of AI and Rise of new Technology

A. Tick (✔) the correct answer.
   1. (c) 2. (a) 3. (b) 4. (b) 5. (a)

B. Fill in the blanks:
   1. do yourself 2. Do yourself 3. AR, VR
   4. VR 5. Holo lens

C. Tick (✔) the correct statement and cross (✗) out the wrong one.
   1. (✗) 2. (✔) 3. (✔) 4. (✔) 5. (✔)

D. Answer the following questions:

1. The term Artificial Intelligence was Initially coined by John McCarthy in 1955, which meant a machine that can solve problems that humans perform using natural intelligence.

2. Augmented reality (AR) is an enhanced version of the real physical world that is achieved through the use of digital visual elements, sound, or other sensory stimuli delivered via technology. It is the integration of digital information with the user's environment in real time.

3. a. Pokemon Go
   b. Snapchat
   c. Google Maps

4. **Virtual Reality :** stands for Virtual Reality, which is something that does not exist physically but can be visualised and experienced. Virtual reality enables the creation of real-life simulations in order to provide users with an immersive experience that makes them feel as if they are actually interacting with the digital environment around them. Car racing games are an example of immersive virtual reality that gives the user the sensation of speed and driving skills. Developed for gaming and other entertainment purposes, VR use in other sectors is increasing nowadays.

   Augmented Reality : Augmented reality (AR) is an enhanced version of the real physical world that is achieved through the use of digital visual elements, sound, or other sensory stimuli delivered via technology. It is the integration of digital information with the user's environment in real time.

5. AI applications in healthcare can literally change patients' lives, improving diagnostics and treatment and helping patients and the healthcare provider make informed medical decisions quickly. Diseases are diagnosed more quickly and accurately in the relatively new field of healthcare, drug discovery is accelerated and streamlined, virtual nursing assistants monitor patients, and big data analysis aids in the creation of a more personalised patient exper.

6. **Everything at your fingertips**
   With the tap of a smartphone, you can turn on your lights, play music, or change the temperature of your room. You can monitor the temperature across corners and instruct your central cooling unit to optimise cooling.
   Execute Customized Schedules
   As soon as you wake up, have your morning coffee ready. When you leave the house, turn

off everything (TV, fans, lights, air conditioners, etc.). With personalised schedules, you can have them turned on in the evening and turned off when you go to bed. You can even give your house a "occupied home" look online and turn it on and off whenever you want.

Talk to or Make Your Home Talk

Simply ask your virtual voice assistant to do anything for you, from ordering groceries to performing a calculation. You no longer need to call switchboards or press numerous remote controls to complete your tasks. You can now control everything in your home with your smartphone or simply by speaking.

Assertion Reason Question

1. (a)
2. (b)

Case Based Question

1. VR stands for Virtual Reality, which is something that does not exist physically but can be visualised and experienced.
2. Virtual reality enables the creation of real-life simulations in order to provide users with an immersive experience that makes them feel as if they are actually interacting with the digital environment around them.
3. Car racing games are an example of immersive virtual reality that gives the user the sensation of speed and driving skills.

Picture Based Question

1. Do yourself
2. Do yourself

Chapter-8

Basics of Python

A. Tick (✔) the correct answer.
   1. (a) 2. (d) 3. (a) 4. (a) 5. (d)
B. Fill in the blanks:
   1. General Public License 2. do yourself
   3. guids van Rossum
   4. single ('), double (") and triple (''')

5. Do yourself
C. Tick (✔) the correct statement and cross (✘) out the wrong one.
   1. (✔) 2. (✔) 3. (✘) 4. (✔) 5. (✔)
D. Answer the following questions:
1. Python is a high-level, interpreted, general-purpose programming language. Its design philosophy emphasizes code readability with the use of significant indentation.
2. **Features of Python**
   • Python is a high-level programming language. It is a free and open source programming language.
   • Python programes are executed by an interpreter, so it is an interpreted language.
   • Python programes are simple to understand because they have a well-defined syntax and a straightforward structure.
   • Python respects case. In Python, for example, NUMBER and number are not the same thing.
   • Python is portable and platform agnostic, which means it can run on a wide range of operating systems and hardware platforms.
   • Python includes a large library of predefined functions. Python can also be used for web development. Python is used to build many popular web services and applications.
3. Do yourself
4. **Script Mode**
   In the script mode, we can write a Python program in a file, save it and then use the interpreter to execute it. Python scripts are saved as files where file name has extension ".py". By default, the Python scripts are saved in the Python installation folder.
   To open script mode, follow the steps:
   Step-1: Open IDLE in interactive mode.
   Step-2: Click File ® New File. A new black window appears.
5. Pep 8 is a document that provides guidelines and best practices on how to write python

code.

6. Python print ( )

Assertion Reason Questions

1. (c)

2. (b)

Case Based Question

1. Syntax refers to the rules that define the structure of a language.

2. Syntax in computer programming means the rules that control the structure of the symbols, punctuation, and words of a programming language.

3. Syntax errors are mistakes in the source code, such as spelling and punctuation errors, incorrect labels, and so on, which cause an error message to be generated by the compiler.

Chapter-9

More about Python

A. Tick (✔) the correct answer.
   1. (d) 2. (c)

B. Fill in the blanks.
   1. If 2. python 3. else if 4. WHILE 5. extension

D. Answer the following questions:

1. **If Statement**

   The 'if' statement gives a logical expression. By using this expression, the data is compared and a conclusion is made. This is on the basis of the comparison.

2. **If ... else :**

   An else statement can be combined with if statement that will implement if the condition resolves FALSE value.

3. **WHILE Loop :**

   While loop is used to iterate a block of code as long as the condition is true. The loop is used when it is not known the number of times to iterate.

   Syntax:

   while <condition>:

   Body of while

4. In the while loop, condition is first analysed. The body of the loop is entered only if the condition checks to True. After an iteration, the condition is evaluated again. This process continues until the condition evaluates to False.

   The body of the while loop is checked through indentation – IDLE automatically indents the code for you.

Assertion Reason Questions

1. (b)

2. (a)

Case Based Question

Do yourself

■■

Networking in Computers

A. Tick (✓) the correct answer.

1. (a) 2. (a) 3. (a) 4. (a) 5. (a) 6. (c)

B. Fill in the blanks:

1. Stand alone 2. bus (cable) 3. Client-Server
4. bus, star 5. physical medium
6. Network topology

C. Tick (✓) the correct statement and cross (✗) out the wrong one.

1. (✓) 2. (✓) 3. (✗) 4. (✓) 5. (✓)

D. Answer the following questions:

1. **Router :** A router is a hardware device used to link a LAN with an internet connection. The incoming packets are received, analysed and for warded to another network using this device.

   Modem : A modem is a hardware device that enables a computer to access the internet using an already installed phone connection.

2. Client Server Network Architecture In a client server computing model, the hosts, provides as well as manages the majority of the resources and services that the client requests. Due to the fact that all requests and services are supplied across a network, it is also referred to as the net work computing architecture or client server network.

3. **Advantages of Bus topology**
   - It necessitates a shorter cable length.
   - It facilitates the connection of computers.

   Disadvantages of Bus topology
   - If the main cable breaks, the entire network goes down.
   - It is difficult to isolate the problem when the entire network goes down.

Advantages of star topology
- Computers are easily connected.
- Data transfer between nodes is quick.
- Faults are easily detectable.
- Computer components can be easily removed.

Disadvantages of star topology
- If the central communication point fails, the nodes connected to it are rendered inoperable (unable to communicate).
- Additional cable length is required.

Advantages of Ring topology

Worker tonnage because the cable connects two computers, data transfer is faster.

Disadvantages of Ring topology

A cable or device failure breaks the loop and can slow down the entire network.

Advantages of Mesh topology

If any cable or node fails, other nodes can communicate in a variety of ways.

Disadvantages of Mesh topology

It is costly due to the requirement of extensive cabling.

Advantages of Tree topology
- A faulty device is simple to identify.
- A network can be easily expanded.

Disadvantages of Tree topology
- If the common cable (backbone) line fails, the entire segment fails.
- It is more difficult to configure than other "topologies."

4. In wireless network technology you're using WiFi. You're using a wireless LAN are typically used in the same scenario as LANs, it just depends on whether you'd prefer an on premises or remote cloud solution (wires or wireless).

5. a. **Personal Area Network (PAN)**

   This is the smallest and most basic network meant to cover a very small

area (typically a single room or building). A PAN is most commonly used for one individual and to connect just a handful of devices such as a computer, smart phone, and printer.

b. Local Area Network (LAN)

This is an extremely common and wellknown type of network. Just as the name suggests, a LAN connects a group of computers or devices together across a local area.

c. Metropolitan Area Network (MAN)

Larger than a LAN but smaller than a WAN, a MAN incorporates elements of both types of networks.

Assertion Reason Questions

1. (b)
2. (a)

Picture Based Question

1. Router
2. Link to LAN with a Internet connection
3. Hardware
4. Do yourself

Chapter-2

Computer Crime and Ethics

A. Tick (✓) the correct answer.

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

B. Fill in the blanks:

1. Computer ethics 2. harm
3. Cyber harasment 4. Phishing & pharming
5. Spam

C. Tick (✓) the correct statement and cross (✗) out the wrong one.

1. (✓) 2. (✓) 3. (✗) 4. (✓) 5. (✗)

D. Answer the following questions:

1. Computer ethics refers to a set of guiding principles for using computers without causing harm to others. There are certain established guidelines to be followed by people to communicate and interact over the internet without causing harm to people or their data.

2. Cyber bullying or cyber harassment is a form of bullying or harassment using electronic means. It is also known as online bullying. It has become increasingly common, especially among teenagers, as the digital sphere has expanded and technology has advanced.

3. Viruses are malicious programs that attach to and corrupt programme files. They corrupt or destroy data storage by destroying useful data. An entire computer system can be rendered inoperable as it may interfere with normal operations of a computer.

   Trojans are dangerous programs that are disguised as useful utilities or software and, once installed, cause damage to the computer system and files. It can allow your computer to be remotely controlled by someone else leading to cause loss of personal information.

4. Safety Measures for Smartphones
   • Set up emergency phone numbers for immediate dialing.
   • Do not use your cell phone everywhere – leave your senses free to perceive other stimuli such as crossing the street, driving, using escalators, being in crowded areas, etc.
   • Get rid of unnecessary data as soon as possible in order to keep your phone data organised and spam free.
   • Keep your phone safe from physical theft. Make it a habit to check before leaving any location.
   • Maintain strong password and pattern protection.
   • Keep your antivirus and software up to date.
   • Sign out of all apps and close them down.
   • Avoid using the automatic download settings.
   • Maintain the security of your wireless access.

- Installing any app impulsively or under peer pressure is not recommended.
- Maintain a regular backup of your phone's data.

5. Pharming is a cyber attack intended to redirect a website's traffic to another, fake site by installing a malicious program on the computer. Pharming can be conducted either by changing the hosts file on a victim's computer or by exploitation of a vulnerability in DNS server software (Domain Name System).

Phishing is an attack that attempts to steal your money, or your identity, by getting you to reveal personal information -- such as credit card numbers, bank information, or passwords -- on websites that pretend to be legitimate.

6. **Preventing the spread of spyware**
- Use trusted antivirus software with anti-spyware features.
- Don't download suspicious-looking email attachments.
- Don't click on online pop-ups.
- Don't open links received in text messages from unknown numbers.
- Avoid chatting with strangers in messaging apps.

Assertion Reason Questions

1. (d)
2. (b)

Source Based Question

1. Viruses are malicious programe that attach to and corrupt programme files.
2. They corrupt or destroy data storage by destroying useful data. An entire computer system can be rendered in operable as it may interfere with normal operations of a computer.
3. Trojans are dangerous programmes that are disguised as useful utilities or software and, once installed, cause damage to the computer system and files.
4. Worms are programme codes that spread their copies across a network from one computer to the next, slowing down the computers' processing.

Picture Based Question

1. Do yourself
2. Do yourself
3. Do yourself

Chapter-3

Attributes in HTML

A. Tick (✔) the correct answer.
   1. (a) 2. (a) 3. (a) 4. (a) 5. (a)
B. Fill in the blanks:
   1. HTML attribute 2. CSS rule 3. CSS Selectors 4. id selector 5. Class selector
C. Tick (✔) the correct statement and cross (✘) out the wrong one.
   1. (✔) 2. (✔) 3. (✔) 4. (✔) 5. (✔)
D. Answer the following questions:
1. An HTML attribute is a piece of markup language used to adjust the behavior or display of an HTML element.
2. **Id Selector :**

   The id selector uses the id attribute of an HTML element to select a specific element. The id of an element is unique within a page, so the id selector is used to select one unique element! To select an element with a specific id, write a hash (#) character, followed by the id of the element.

   Class Selector :

   The class selector is a way to select all of the elements with the specified class name, and apply styles to each of the matching elements. The selector must start with a period (.) and then the class name. The browser will look for all tags in the page that have a class attribute containing that class name.
3. A CSS selector is the first part of a CSS Rule. It is a pattern of elements and other terms that tell the browser which HTML

elements should be selected to have the CSS property values inside the rule applied to them. It is used to lay out and style web pages.

4. There are many basic different types of selectors.
   - Element Selector.
   - Id Selector.
   - Class Selector.
   - Universal Selector.
   - Group Selector
5. Inline styles — Using the style attribute in the HTML start tag.

   Embedded style — Using the <style> element in the head section of the document.

   External style sheet — Using the <link> element, pointing to an external CSS files.
6. There are two ways to attach external sheets.
   - Importing External Style Sheets.
   - Linking External Style Sheet.

   Importing External Style Sheets

   The @import rule is another way of loading an external style sheet. The @import statement instructs the browser to load an external style sheet and use its styles.

   You can use it in two ways. The simplest way is to use it within the <style> element in your <head> section. Note that, other CSS rules may still be included in the <style> element.

   Linking External Style Sheets

   An external style sheet can be linked to an HTML document using the <link> tag.

   The <link> tag goes inside the <head> section, as shown here:

Assertion Reason Questions

1. (a)
2. (b)

Source Based Question

1. A CSS selector is the first part of a CSS rule.
2. It is a pattern of elements and other terms that tell the browser which HTML element

should be selected to have the CSS properly values inside the rule applied to them.

3. There are many basic different types of selectors.

   • Element Selector • Id Selector • Class Selector • Universal Selector • Group Selector

Developing Interactive Webpages

A. Tick (✔) the correct answer.
   1. (d) 2. (d) 3. (b) 4. (b) 5. (a)
B. Fill in the blanks:
   1. script 2. HTML
   3. values 4. three 5. comment
C. Tick (✔) the correct statement and cross (✘) out the wrong one.
   1. (✔) 2. (✘) 3. (✔) 4. (✔) 5. (✔)
D. Answer the following questions:
1. Do yourself
2. Values are stored in variables. Variables can only hold one value at a time. When a new value is stored in a variable, the previous value is permanently lost. Specific types of variable can store a specific type of value. There are three basic types of variables in JavaScript. Numbers, strings, and Boolean values are stored in variables.
3. Comments are an excellent way to document programs or to mark desired parts of programs as non-executable. Any commented section of the program is ignored by the computer and is not considered for execution. A single line is commented with a double forward slash (//), and multiple lines are commented with a pair of /* and */.
4. Event Handling: To handle an event, first identify the event you want to handle and then write a function to run in response to that event. The most common events in

JavaScript are mouse and keyboard events. The event is then associated with a function that is called when the event occurs.

5. InnerHTML is the area of a web page that exists between any start tag and its corresponding end tag. InnerHTML is used for mytext, which is the ID of the FONT tag. InnerHTML refers to the space between FONT> and /FONT>.

The value attribute of the INPUT tag is used to access the text typed in the textbox, mytextbox.

Text typed in the textbox mytextbox is thus assigned to FONT's innerHTML.

6. Do yourself

Assertion Reason Questions

1. (a)

2. (a)

Source Based Question

1. Values are stored in variables. Variables can only hold one value at a time.

2. When a new value is stored in a variable, the previous value is permanently lost.

3. A specific type of variable can store a specific type of value.

4. There are three basic types of variables in Java Script. Numbers, Strings, and Boolean values are stored in variables.

Chapter-5

Detabase Management System

A. Tick (✓) the correct answer.

1. (a) 2. (a) 3. (d) 4. (a) 5. (c)

B. Fill in the blanks:

1. database 2. DBMS 3. constraints

4. redundat data 5. relationa database

C. Tick (✓) the correct statement and cross (✗) out the wrong one.

1. (✓) 2. (✗) 3. (✓) 4. (✓) 5. (✓)

D. Answer the following questions:

1. Database Management System

A database management system (or DBMS) is essentially nothing more than a computerized data-keeping system. Users of the system are given facilities to perform several kinds of operations on such a system for either manipulation of the data in the database or the management of the database structure itself.

2. Four types of database management systems

1. Hierarchical database systems.

2. Network database systems.

3. Object-oriented database systems.

4. Relational database management systems.

3. **Parts of a Table**

• Columns: A table's columns are also known as attributes. The column is the table's vertical component.

• Rows: This is the table's horizontal section. One row represents one table record. A table row is also known as a tuple.

• Cell: A cell is a small rectangular box in the table that contains a value. It is the point where row and column meet.

• The number of attributes in a table is referred to as the table's degree. The table's degree STUDENT is six years old.

• The number of rows in a table is referred to as its cardinality. The table's sanctity STUDENT is 5.

4. a primary key is based on a single column or attribute. In some cases, the primary key is a combination of two or more fields.

5. A foreign key column is one that refers to the primary key/unique key of another table. As a result, it demonstrates the relationship between tables and serves as a cross reference between them. Duplicate values can be stored using a foreign key. A table

with a foreign key is referred to as a child table or a dependent table.

6. **Features of DBMS**

    a) **Faster information retrieval:** Information based on data stored in a DBMS can be pulled/retrieved quickly and easily using queries.

    b) Support Concurrent Updates: Concurrent updates occur when multiple users update the database at the same time. Concurrent updates are also important for database management because they ensure that updates are made correctly. Otherwise, important data would be lost and/or inaccurate data would be stored.

    c) **Recovery of Data:** DBMS provides ways to backup and database recovery. There are times computers may crash, a fire or other natural disaster may occur, or a user may enter incorrect information invalidating or making records inconsistent.

    d) **Security:** To prevent unauthorised access to the database, DBMS uses features such as encryption, authentication, authorization, and views.

Assertion Reason Questions

1. (a)
2. (b)

Case Based Question

1. Do yourself
2. Do yourself
3. Do yourself

Picture Based Question

1. MS-Access
2. Do yourself
3. Do yourself

Chapter-6

MS Access

A. Tick (✓) the correct answer.

    1. (d) 2. (c) 3. (d) OLE object 4. (b) 5. (a)

B. Fill in the blanks:

    1. old data, new data 2. alphabetically, numerically 3. filters 4. Toggling

    5. Advanced filter

C. Tick (✓) the correct statement and cross (✗) out the wrong one.

    1. (✗) 2. (✓) 3. (✓) 4. (✗) 5. (✓)

D. Answer the following questions:

1. Microsoft Access is a Microsoft Database Management System (DBMS) that combines the relational Microsoft Jet Database Engine with a graphical user interface and software development tools. It is included in the professional and higher editions of the Microsoft Office suite of applications.

2. **Features of Microsoft Access**

    a. Ideal for individual users and smaller teams.

    b. Easier than a client-server database to understand and use.

    c. Access import/export functionality for Microsoft Office and other applications.

    d. Ready templates available for everyday users to develop and share data.

    e. Allows building and publishing Web databases effortlessly.

    f. A user-friendly feature 'Tell Me' for assistance.

    g. Allows developers to create custom solutions using VBA code.

    h. Hide/Show option for Ribbon.

    i. Enables users to view Reports Eliminates additional Reports.

    j. Reports can be output in PDF format.

3. First, right-click on the record's row header, and then,

    A. To add a new record, click the New Record button.

    B. To delete a record, click the Delete button.

4. Filter By Form

    This option allows you to open the table's fields as drop-down lists and select the value

based on which records are filtered.

Step-1: In the Advanced drop-down menu, choose Filter By Form.

Step-2: The table will be made available. Navigate to the desired field and select it from the drop-down menu.

Step-3: Select the desired value.

5. Do yourself

6. **Step-1:** Select Relationships from the Relationships group under the Database Tools tab. The Relationship editor will be launched, and the Show Table dialogue box will appear.

Step-2: In the Show Table dialogue box, add the tables Author and Book to the Relationship editor one at a time, then close the dialogue box.

Step-3: In the Author table, click on the field AuthorCode (which is shared by both tables) and drag it up to the same field in the Book table.

Step-4: The dialogue Edit Relationships will appear. Press the Create button. The tables will be connected.

Assertion Reason Questions

1. (a)

2. (b)

Source Based Question

1. The term reference refers to any value in a child table's foreign key field that is also present in the master table.

2. Referential integrity means ensuring the correct data is kept in the tables.

3. Microsoft Access ensures referential integrity in two ways:

   a. If the primary key value changes, the matching values in the child tables will change as well.

   b. If a matching record exists in the related table, the record in any table will not be deleted.

Turtle Programming in Python

A. Tick (✔) the correct answer.
   1. (a) 2. (d) 3. (c) 4. (a) 5. (a)

B. Fill in the blanks:
   1. turtle 2. four 3. turtle . reset ( )
   4. right ( ), left ( ) 5. t.fd ( )

C. Tick (✔) the correct statement and cross (✘) out the wrong one.
   1. (✔) 2. (✘) 3. (✔) 4. (✔) 5. (✘)

D. Answer the following questions:

1. Turtle is a pre-installed Python library that allows users to draw pictures and shapes on a virtual canvas. The onscreen pen used for drawing is known as the turtle, and it is this that gives the library its name.

2. To create a file in Python, in the Python Shell, go to the File menu and select New File.

3. The turtle. clone() method is used to create and return a clone of the turtle with the same position, heading, and turtle properties. This method does not require any argument.

Example 1: Without Cloning

```
# import package
import turtle
# make first turtle object
tur1=turtle.Turtle()
# set turtle properties
tur1.width(5)
tur1.color("red")
Computer World - 8 108
# move it
tur1.circle(50)
# make another turtle object
tur2=turtle.Turtle()
# move it
tur2.circle(-50)
```

Output:

4. This method is used to stamp a copy of the turtle shape onto the canvas and return its id. It doesn't require any argument. Whatever the shape of the turtle is, it is printed at that point and continues with the next instructions.

5. We can also use the reset function to reset the current working. It clears the screen and restores the turtle's settings. The following function can be used.

turtle.reset()

This function is used to delete the turtle's drawings and restore its default values. It doesn't require any argument.

6. **t.bgcolor (<colour>):** This command is useful for changing the background colour.

t.fillcolor (<colour>) : This helps to choose the color for filling the shape. It takes the t.fillcolor (<colour>) input parameter as the color name or hex value of the color and fills the upcoming closed geographical objects with the chosen color .

Assertion Reason Questions

1. (c)

2. (d)

Source Based Question

1. Python provides in build functions for creating, writing and reading files.

2. There are two types of files that can be handled in python, normal text files and binary files.

3. Binary files: In this type of fil, there is no terminator for a line and the data is stored after converting it into machine-understandable binary language.

Chapter-8

Code with Python Turtle: Control Statements

A. Tick (✓) the correct answer.
1. (d) 2. (a) 3. (d) 4. (a) 5. (a)

B. Fill in the blanks:
1. if 2. if else 3. nested if 4. three
5. nested

C. Tick (✓) the correct statement and cross (✗) out the wrong one.
1. (✓) 2. (✓) 3. (✗) 4. (✓)

D. Answer the following questions:

1. Python has six conditional statements that are used in decision-making:-
1. If the statement 2. If else statement 3. Nested if statement 4. If…Elif ladder 5. Short Hand if statement 6. Short Hand if-else statement

2. To handle looping requirements, the Python programming language provides the following types of loops.

3. Python provides three methods for loop execution. While all of the methods provide similar basic functionality, their syntax and condition checking time differ.
Loop Types:
1. While loop 2. For loop 3. Nested loops

4. **Conditional statements :** Making decisions is as important in programming as it is in life. Conditional statements in a programming language automate decision-making by evaluating the code to see if it meets the specified conditions.
Loops In Python
To handle looping requirements, the Python programming language provides the following types of loops.Python provides three methods for loop execution. While all of the methods provide similar basic functionality, their syntax and condition checking time differ.

5. **While Loop**
It executes the statements (code) indefinitely as long as the given condition is TRUE. It first checks the condition before proceeding with the instructions.
For Loop
A for loop is used to iterate over a sequence, such as a list, type, dictionary, set, or string.

For each item in the sequence, loop statements will be executed.

6. Indentation refers to the spaces at the beginning of a code line. Where in other programming languages the indentation in code is for readability only, the indentation in Python is very important. Python uses indentation to indicate a block of code.

Assertion Reason Questions

1. (d)
2. (b)

Source Based Question

1. The 'If' statement is the most fundamental decision-making statement, as it determines whether or not the code is executed based on whether or not it meets the specified conditions.

2. It contains code that executes only if the condition in the 'If' statement is true. The statement can be a single line of code or an entire block of code.

3. Do yourself

Chapter-9

AI: Challenges and Applications

A. Tick (✓) the correct answer.
   1. (a) 2. (d) 3. (a) 4. (a) 5. (a)

B. Fill in the blanks:
   1. AI 2. Reinforcement 3. Von Neumann
   4. Artifical intelligence 5. map forests

C. Tick (✓) the correct statement and cross (✗) out the wrong one.
   1. (✓) 2. (✓) 3. (✓) 4. (✗) 5. (✗)

D. Answer the following questions:

1. Artificial intelligence (AI) is any task performed by a programme or machine that would otherwise require human intelligence to complete.

2. a. **Eliminate Dull and Boring Tasks:** We've all completed a task simply because we had to, rather than because we wanted to. That task was boring or dull to us.

   b. **Ingestion of Data:** Elucify, which is essentially a database of multiple business contacts, is one such example of artificial intelligence. Elucify operates on a simple principle: give to receive.

   Making it difficult for traditional database systems to ingest it all. As a result, AI-enabled systems have gone above and beyond, gathering and analysing data that can be useful to everyone.

3. Chatbots are software that allows a conversation with the user to solve any problems they are having, either through auditory or texting methods. These programmes simulate human behaviour while conversing with a human via an application. Many businesses, including Swiggy and Nykaa, have begun to use chatbots for customer service.

4. a. **Recommendation Systems:** You've probably seen this small box on various e-commerce websites that says "Our picks for you" or "Things that might interest you." These sections recommend items you might want to buy based on what you have previously purchased, as well as what others who have purchased the same item as you have purchased.

   b. **Games:** Here's a second well-known AI application! Whether its video games or board games, AI systems have been developed to play games and compete with human players.

   c. **Transportation Systems:** When it comes to AI and transportation systems, I have no doubt that you will first consider self-driving cars. However, long before driverless cars became a reality, Artificial Intelligence systems were widely used in transportation systems.

   d. **Neuromorphic computing:** Von Neumann's architecture model is used

in traditional computers. With the success of deep neural networks, alternative models, many of which are inspired by neural biological networks, are being developed.

e. **Robotics:** The navigation of robots in static environments has received a great deal of attention and resolution. Now, research is focusing on their ability to interact with the surrounding reality in a predictable manner in a dynamic environment in real time.

f. **Architecture and Design :** Although AI is still in its early stages in terms of research and application, it has proven to be an excellent tool for Evidence-Based Design. Evidencebased design is based on empirical and quantifiable measures, similar to Evidencebased Medicine, which is medicine based on facts.

5. **Turing Test :** The Turing test, originally called the imitation game was founded by Alan Turing an English computer scientist, cryptanalyst, mathematician and theoretical biologist in 1950, is a test of a machine's ability to exhibit intelligent behaviour equivalent to, or indistinguishable from, that of a human.It is a method of inquiry in artificial intelligence (AI) for determining whether or not a computer is capable of thinking like a human being.The Turing Test judges the conversational skills of a bot.

6. Do yourself

Assertion Reason Questions

1. (b)

2. (a)

Source Based Question

1. The software engine that drives the fourth Industrial Revolution is Artificial Intelligence (AI).

2. It holds the promise of resolving some of society's most pressing issues, but it also pose challenges such as incomprehensible " black box" algorithms, unethical data and potential job displacement.

3. Its influence is already being felt in homes, business, and political processes.

4. Do yourself

■■