Answer Key

Computer Application 165 (Ver. 2.0)

1. Networking

Unsolved Exercise ?

Section A
(Objective Type Questions)

A. 1. ii. 2. i. 3. iv. 4. iv. 5. iv. 6. iii.

7. iii. 8. iv.

B. 1. Network of Networks 2. Home Page 3. Lynx

4. Spam blogs 5. Mail Transfer Agent 6. Secure Shell

C. 1. iii. 2. iv.

Section B
(Subjective Type Questions)

A. 1. Telnet 2. Web Server 3. Remote Login Protcols

4. HTML 5. Flaming

6. **e.Banking**

- e-Banking refers to the online banking transactions that can be done through a computer on the Internet from any where irrespective of the location of the user.
- It enables an account holder of a particular bank to do transactions like transfer of funds to or from other accounts, payment of bills, etc. by oneself on a computer.

e-Commerce

- E-commerce (electronic commerce) refers to the buying and selling of goods and services over the Internet.
- It involves a wide range of business activities, including online transactions, digital payments, and the management of virtual inventories.

OR

e-Learning refers to the application of internet media in the field of education and learning. Distance Learning Programmes being provided by different universities like IGNOU, SMU, PTU, etc.

B.
1. Remote login refers to operating an application or software or database of a network or server from a remote location.

2. Some common web browsers are 'Mozilla Firefox', 'Opera', 'Apple Safari', 'Google Chrome', 'Microsoft Edge', 'Lynx' (Text only mode web browser), etc.

3. When one purchases such rights for any location or for occupancy of a seat for traveling to any corner of the world through Internet, it is called online reservation or 'e-Reservation' or 'e-Booking'.

4. Lurking means hanging around a newsgroup (especially if there is a new member of the group) to see what is being discussed.

5. HTML is used to publish web pages. A web page is designed by web developers with the help of markup languages like HTML.

6. The SSH (Secure Shell) protocol establishes secured remote login and secured transfer of data. It provides strong authentication and protects communication with strong encryption.

7. The names of few search engines are Pipl People Search, Infospace, Whitepages, True People Search, Find People Search and Peek you.

8. Two differences between SMS and MMS:
   • SMS is used to send only text messages containing characters, numbers, or symbols, while MMS allows sending multimedia content like images, audio, and videos along with text.
   • SMS has a limit of 160 characters per message, whereas MMS does not have this character limit and can include longer messages with rich media.

9. Social networking refers to a link of hundreds of people around the world on Internet. It is the network of different people who form communities among themselves to share sentiments, relationships, topics, ideas or topics of common interest.

10. Internet establishes a high level of connectivity which has resulted in an unparalled degree of fastest, easiest and cheapest ways to transfer or share data and information around the globe. It provides access to communication services and information resources to millions of users around the globe, round the clock.

11. A web browser is an application software that helps a user to navigate through different websites on the Internet and display web pages.

12. SMTP stands for Simple Mail Transfer Protocol. It is a TCP/IP protocol that is used in sending and receiving e-mail. Simple Mail Transfer Protocol is also known as RFC 821 and RFC 2821.

13.

HTTP	HTTPS
The address bar URL (Uniform Resource Locator)begins with "http://"	The address bar URL starts with "https://"
It is unsecure.	It is secure mode for exchanging data.
There is no encryption of data.	Data is encrypted in HTTPS.
It does not require any certificate.	It needs SSL (Secure Socket Layer) certificate.

14. The following five elements are required for video conferencing:
   • Video Input: Video Camera, Web Cam, Mobile Camera.
   • Video Output: Computer Monitor, Television or Projector Screen.
   • Audio Input: Microphone, Mic.
   • Audio Output: Speakers or Earphone associated with the display devices or telephone line.
   • Network: (Data Transfer) Analog or Digital Telephone Network, LAN or Internet.

15. e-Banking refers to the online banking transactions that can be done through a computer on the Internet from any where irrespective of the location of the user.

   Advantages of e-Banking
   • The account holder can check the account balance at any time from anywhere and can take immediate action for any variation or error in the balance of his account.
   • e-Banking is eco-friendly as it reduces the paper work.
   • e-Banking saves time, energy, natural resources and reduces traffic problem to some extent.

16. e-Governance (Electronic Governance) refers to the application of Information and Communication Technology (ICT) tools for delivering the services of government.

   Benefits of e-Governance

   Following are the advantages of e-Governance:
   • Fast execution of process
   • Reduced corruption
   • High transparency
   • Increased convenience
   • Reduction in overall cost.
   • Expanded reach of government
   • Timely information and instructions to government hierarchy

17. Internet Message Access Protocol (IMAP) is a mail protocol that enables to receive emails from a remote server to a local email client. It allows to access e-mail messages without downloading them.

18. SMTP stands for Simple Mail Transfer Protocol. It is a TCP/IP protocol that is used in sending and receiving e-mail.

19. Internet Message Access Protocol (IMAP) is a mail protocol that enables to receive emails from a remote server to a local email client. It allows to access e-mail messages without downloading them.

20. i. https identifies the protocol used to access the website.

    ii. The "s" in https stands for secure, indicating that the data exchanged between the user and the website is encrypted using SSL/TLS.

    iii. URL: Uniform Resource Locator

    WWW: World Wide Web

21. Telnet

22. i. Internet is an interconnected Wide Area Network (WAN) of millions of computers that are linked together around the world.

    ii. TCP/IP stands for Transmission Control Protocol/Internet Protocol. It is a standard Internet communication protocol that allows computers to communicate over long distances. Transmission Control Protocol/ Internet Protocol, is a suite of two protocols i.e., TCP and IP, used to interconnect network devices on the Internet.

    iii. A web server is the principal computer or server that stores the contents of different websites. It provides data and information to computers on request which are connected to it through the network via Internet.

    iv. A newsgroup refers to a forum on the Internet where people share ideas about topics of mutual interest. The topics of interest may be from areas like politics, technology, sports, etc

    v. Electronic mail is a mailing service provided by the Internet by which one can send messages to any person around the world through computer.

    vi. Secure Copy (SCP) is a file transfer protocol, which helps in transferring computer files securely from a local host to a remote host. It works on the Secure Shell (SSH) protocol technique.

C. 1. The generations of mobile technology are as follows:

    • First Generation (1G): Introduced in the 1980s, 1G was the first cellular network, providing voice services only. It was based on the AMPS (Advanced Mobile Phone System) technology but lacked security and had inconsistent communication quality.

    • Second Generation (2G): Launched in the late 1990s, 2G used digital signals for voice transmission and supported SMS (text messaging). It also introduced Pagers for text messaging, marking a shift from analog to digital communication.

- Third Generation (3G): 3G, introduced in the early 2000s, enabled high-speed data transmission and supported multimedia services like video calling, video streaming, and Internet browsing. It allowed data transfer rates of up to 2 Mbps.

- Fourth Generation (4G): 4G networks are faster than 3G, with data speeds 5-7 times faster. It supports high-definition video streaming, mobile broadband, MMS, video chatting, and mobile TV. 4G LTE is commonly used in India.

- Fifth Generation (5G): Launched in 2016, 5G offers extremely fast speeds, low latency, and improved reliability, reaching up to 20 Gbps. It supports virtual reality, cloud services, and extreme reality (XR), with widespread adoption across 50+ countries.

2. e-Governance (Electronic Governance) refers to the application of Information and Communication Technology (ICT) tools for delivering the services of government. The basic purpose of e-Governance is to simplify processes for acquiring services and passing required information properly to the stakeholders at National, State and Local levels and to promote simple, fast, responsive, accountable and transparent governance. Through e-Governance, the citizens gets convenient, efficient and transparent service.

Benefits of e-Governance

Following are the advantages of e-Governance:

- Fast execution of process

- Reduced corruption

- High transparency

- Increased convenience

- Reduction in overall cost.

- Expanded reach of government

- Timely information and instructions to government hierarchy

3. Social networking has encouraged new ways of communication among people from different corners of the world. It forms a bigger network when two people in contact start sharing their thoughts or their profiles through net with each and these two people further share their thoughts with other people they are connected with. On WWW, there are many social networking sites that provide different ways for users to interact, such as through e-mails, comments, sharing photographs, instant messaging, etc. Networking between two people on Internet takes place only when the users from both the end confirm in order to be included as a part of a link with each other.

Social networking websites are being used regularly by millions of people. Some of them are: Linkedin, Whatsapp, Instagram, Facebook, X, etc In social networking site, a user creates his own profile by uploading information about himself. In social network, it may be possible that the two people in network might not know each other personally, they may know each other only based on their profile which has been uploaded by themselves.

4. The following five elements are required for video conferencing:
   - Video Input: Video Camera, Web Cam, Mobile Camera.
   - Video Output: Computer Monitor, Television or Projector Screen.
   - Audio Input: Microphone, Mic.
   - Audio Output: Speakers or Earphone associated with the display devices or telephone line.
   - Network: (Data Transfer) Analog or Digital Telephone Network, LAN or Internet.

5. i. Web Page: A web page is a document of information that can be accessed and viewed through a web browser. A web page is generally contained in a website and constitutes as a source of information that floats on the world wide web.

   Website: A location on the web server where an individual or a company or any organisation uploads its information is known as a website. It is a collection of one or more web pages that display information with the help of a web browser.

   ii. SMTP: SMTP is used for sending e-mails over the internet, where it handles the sending and queuing of messages to the recipient's email server.

   FTP: FTP is used for transferring files between computers on a network, allowing users to upload and download files from an FTP server.

   iii. HTTP: HTTP is the standard protocol used for transferring web pages and data over the internet. It is not secure, meaning data transmitted via HTTP can be intercepted or altered.

   HTTPS: HTTPS is the secure version of HTTP, where the data is encrypted using SSL/TLS protocols, ensuring secure communication between the web server and browser. The "S" stands for secure, offering protection against data theft and tampering.

   iv.

FTP	SFTP
File Transfer Protocol, often called 'Plain FTP'.	SSH File Transfer Protocol, often called 'Secure FTP'.
Clear-text password sent over the network.	Password and Data Transfer is encrypted.
Typically runs over TCP port 21.	Typically runs over TCP port 22.

   v. Differences between SMS and MMS:
      - SMS is used to send only text messages containing characters, numbers, or symbols, while MMS allows sending multimedia content like images, audio, and videos along with text.
      - SMS has a limit of 160 characters per message, whereas MMS does not have this character limit and can include longer messages with rich media.

6. Following are some of the features of WWW:
   - User-friendly: WWW resources are user-friendly and can be used easily with the help of web browsers.

- Hypertext and Hyperlinks: Hypertext coordinates communication and establishes link among web pages that incorporate text, images, audio, visuals and dynamic links.
- While browsing, some parts of the document are often highlighted by underlining or displayed in a special colour. Such highlighted words that provide links are termed hyperlinks. WWW supports such hypertext and hyperlink files and thus enables Internet surfing easier for the users.
- Multimedia documents: Multimedia documents contain information in the form of audio, video, graphics, animations and text which are viewed on web pages. WWW allows and supports the Internet users to create, link or display multimedia web pages.
- Interactive: WWW provides a graphical interface. It supports and enables easy and convenient interaction between the users and the servers through hyperlinks and input boxes like radio buttons, check boxes, text boxes, etc.
- Accessibility: WWW is accessible by anyone irrespective of location, caste, community, nationality, profession, physical disability, etc. A user just needs a computer, modem and Internet connection.
- Caching: If a user revisits the same web page after a short interval, it may not be needed to recall that data from the source web server. Caching enables to store data in memory. It allows to revisit or re-browse the same website while operating on the same computer before switching it off.

D. 1. Sarika can use Video Conferencing technology (e.g., Zoom, Google Meet, Microsoft Teams) to attend the meeting.

Advantages over traditional methods:

- Time and Cost Saving: No need for international travel, which saves time and reduces travel costs.
- Real-Time Interaction: Enables face-to-face communication and real-time collaboration, similar to physical meetings.

2. Prerna can use e-learning to attend classes from home.

3. Liza is using Multimedia Messaging Service (MMS) technology which is a fourth generation mobile technology.

Section C
(Case-based/Passage-based Type Questions)

A. 1. iv.   2. iv.   3. iv.   4. iii.   5. iv.

B. 1. Web chatting   2. Video conferencing   3. e-Banking

4. e-Shopping   5. e-Reservation

Previous Years's Questions ⏪

1. iii.   2. iii.   3. i.   4. ii.

5. Two points of comparison between Chat and Email in context of web services is as follows:

   • Chat allows real-time communication between users, making it ideal for instant messaging, whereas Email does not occur in real time and is used for sending and receiving messages that the recipient can check later.

   • Chat is generally used for short and informal conversations, while Email is more appropriate for formal and detailed communication.

6. Two advantages of e-Banking are as follows:

   • The account holder can check the account balance at any time from anywhere and can take immediate action for any variation or error in the balance of his account.

   • e-Banking is eco-friendly as it reduces the paper work.

7. Web Page: A web page is a document of information that can be accessed and viewed through a web browser. A web page is generally contained in a website and constitutes as a source of information that floats on the world wide web.

   Website: A location on the web server where an individual or a company or any organisation uploads its information is known as a website. It is a collection of one or more web pages that display information with the help of a web browser.

8. i. Suraj has entered a web address (URL) instead of an email address.

   www.gmail.com is the website address for accessing the Gmail platform. An email address should be in the format like username@gmail.com (e.g., supervisor123@gmail.com), which identifies the recipient's mailbox.

   ii. Suraj can use the following two software platforms for video conferencing:
   • Zoom
   • Google Meet

   iii. FTP(File Transfer Protocol)

   iv. Facebook, Instagram

9. i.

10. iv.

11. iii.

12. iv.

13. iii.

14. i.

15. Chat allows real-time communication between users, making it ideal for instant messaging, whereas Email does not occur in real time and is used for sending and receiving messages that the recipient can check later.

16. e-Governance (Electronic Governance) refers to the application of Information and Communication Technology (ICT) tools for delivering the services of government. The basic purpose of e-Governance is to simplify processes for acquiring services and passing required

information properly to the stakeholders at National, State and Local levels and to promote simple, fast, responsive, accountable and transparent governance.

Some of the major e-Governance Projects in India:
- Unique Identification Authority of India (Aadhaar)
- Digital Locker

OR

Internet is an interconnected Wide Area Network (WAN) of millions of computers that are linked together around the world. With Internet, we can share information in the form of data, graphics, sound, software, text, etc. instantly as and when required with a minimum overhead cost.

17. i. The difference lies in the protocol used:
    - URL1 uses HTTPS, which stands for HyperText Transfer Protocol Secure. It encrypts data, ensuring a secure connection.
    - URL2 uses HTTP, which stands for HyperText Transfer Protocol and does not provide encryption, making it less secure.

    ii. I would prefer URL1 (https://www.practicepayment.com) because it uses HTTPS, which encrypts the data exchanged between the user and the website. This ensures security and privacy, especially important for sensitive actions like online payments.

    iii. www stands for World Wide Web.

18. i. HyperText Transfer Protocol Secure
    ii. Transmission Control Protocol
    iii. Secure Shell

19. Web Page: A web page is a document of information that can be accessed and viewed through a web browser. A web page is generally contained in a website and constitutes as a source of information that floats on the world wide web.

    Website: A location on the web server where an individual or a company or any organisation uploads its information is known as a website. It is a collection of one or more web pages that display information with the help of a web browser.

    OR

    A web browser is an application software that helps a user to navigate through different websites on the Internet and display web pages. The user requests a page from a web server with the help of web browser. After receiving the request through the web browser, the web server makes it available for a web browser to display the page. Two commonly used Web Browsers are: Google Chrome and Microsoft Edge.

20. i. Simple Mail Transfer Protocol
    ii. Post Office Protocol version 3
        SMTP is used for sending emails from a client to a server or between mail servers. POP3 is used for receiving and downloading emails from the server to the client's device.

21. e-Governance (Electronic Governance) refers to the application of Information and Communication Technology (ICT) tools for delivering the services of government. The basic purpose of e-Governance is to simplify processes for acquiring services and passing required information properly to the stakeholders at National, State and Local levels and to promote simple, fast, responsive, accountable and transparent governance.

Following are the advantages of e-Governance:
- Fast execution of process
- Reduced corruption

22. A Web Address, also known as a URL (Uniform Resource Locator), is used to access websites on the Internet. It typically starts with http:// or https:// and directs users to a specific web page. For example: https://www.flipkart.com – This will take you to the Flipkart website.

An Email Address, on the other hand, is used to send and receive electronic messages. It includes an @ (at) symbol that separates the user name from the domain name. For example: editorial@orangeeducation.in

OR

SMS (Short Message Service) is commonly known as 'Text Message'. It's a way to send text messages (typed in characters, numbers or symbols) from one mobile device to another. Standard SMS is limited to 160 characters per message, including spaces.

MMS (Multimedia Messaging Service) is a way to send and receive messages that include images, audio, and video clips in addition to text. In 3G mobiles, even such messages are delivered instantly.

23. i. Email
    ii. Remote Login Protocol – Telnet or SSH
    iii. FTP
    iv. HTTPS (HyperText Transfer Protocol Secure)
    v. HTTP (HyperText Transfer Protocol)

2. Introduction to HTML

Lab Assignment 'n Activity Page 64-97

Do it yourself.

Unsolved Exercise ❓

Section A
(Objective Type Questions)

A. 1. ii. 2. ii. 3. ii. 4. ii. 5. iii. 6. iii.

   7. iv. 8. ii. 9. iv. 10. ii.

B. 1. TEXT Editor, Web browser   2. Container Tag

    3. Block-level   4. Ted Nelson

    5. font-family

C. 1. iii.

    2. iii.

Section B
(Subjective Type Questions)

A. 1. `<hr style="border-color: red;">`

    2. `<h5 style="color: yellow;">Heading</h5>`

    3. `<b><strike>I Love India</strike></b>`

    4.
```
<ol type="i">
<li>Item 1</li>
<li>Item 2</li>
<li>Item 3</li>
</ol>
```

    5. bgcolor is the attribute used to set the background colour of a web page.

B. 1. The term 'Hypertext' was coined by Ted Nelson around 1965. It is a collection of documents containing cross-references or 'links' which with the help of a browser program helps a user to move easily from one document to other.

    2. Markup means identifying or marking the text by applying formatting features in web documents and producing different types of effects when the document is displayed.

    3. HTML provides various presentation tags that help in enhancing the appearance of the web page.

       • <FONT> Tag

    This is a container tag. It is used to set the text colour, text size and typeface of an HTML page.

       • <SMALL> Tag

    This is a container tag and it makes the enclosed text inside it one size smaller than the default size. i.e., if the default size is '3', it displays the blocked text in size '2' (it has the same effect as <FONT SIZE =-1>). The <SMALL> tag can be nested to display the blocked text in smaller form.

    4. HTML has evolved to make websites better and more interactive. HTML 1.0 (1993) was basic for structuring text and links. HTML 2.0 (1995) added forms. HTML 3.0 aimed for advanced features but wasn't widely used. HTML 4.0 (1997) introduced CSS, JavaScript, and multimedia. HTML 5.0 (2014) brought modern features like audio, video, and APIs. Today, HTML is essential for the web.

5. The necessary tags required in every HTML page (also called basic structure tags) are:
   - <!DOCTYPE html> – Declares the document type and version of HTML.
   - <html> – The root tag that wraps the entire HTML document.
   - <head> – Contains meta-information about the document (like title, styles, etc.).
   - <title> – Sets the title of the web page (visible on browser tab).
   - <body> – Contains the visible content of the web page.

C. 1.
```
<!DOCTYPE html>
<html>
<head>
<title>Presentation</title>
</head>
<body>
We are Proud to Present<br>
<hr>
Orbit<br>
The Geometric Juggler<br>
<hr>
</body>
</html>
```

2.
```
<!DOCTYPE html>
<html>
<head>
<title>Orange Education</title>
</head>
<body style="color:blue; background-color:skyblue; font-family:'Brush
Script MT'; font-size:15px; text-align:center;">
<h1 style="font-family:Algerian; color:green;">ORANGE EDUCATION</h1>
Education is the ability to listen to almost anything without losing
your temper or your self confidence.
</body>
</html>
```

3.

Tag	Purpose/Usage
<html>	Root tag for the HTML document (structural).
<head>	Contains metadata, title, styles, etc. (structural).
<body>	Holds the visible content of the web page (structural).

<h1> or <h2>	Used for main headings like "ORANGE IT QUIZ" (formatting).
<b> or <strong>	Used to bold text like "Grab ...", "Avail ..." (formatting).
<p>	Paragraphs like "Showcase your IT Acumen..." (structural).
	Ordered list for items like Laptops, Tablet PCs, etc.
	Unordered list for bullet points under "Avail......"
	List item tags used inside and .
<img>	For inserting the ORANGE logo image at the bottom right.

4. To work in HTML, the user needs:

   • Text Editor

   It provides the layout in which the text can be typed along with proper HTML syntax to create web pages. Text editor can be character or graphical based. Some common examples of popular text editors are Visual Studio Code, Sublime Text, Notepad++, Atom, Vim, Emacs, etc. The typed HTML text or codes are saved with the extension .HTM or .HTML in the file name.

   • Web Browser

   Web Browser is an application software that enables to display text, images, videos, music or other contents which are coded in a text editor or embedded in a web page on the World Wide Web or on a Local Area Network. Text and image on a web page can contain hyperlinks to other web pages in the same or in different website. Browser allows a user to easily and quickly access the information that are uploaded provided on different web pages of other websites by traversing through these links.

5. ```
<!DOCTYPE html>
<html>
<head>
<title>Famous Landmarks</title>
</head>
<body style="background-color:lightgray; text-align:center;">

<h1 style="color:blue;">List of Countries and Their Famous
Landmarks</h1>

<div style="text-align:left; margin-left: 100px;">

India

Taj Mahal
```

```
    <li>Gateway of India</li>
    </ul>
    </li>
    <li>France
    <ul>
    <li>Eiffel Tower</li>
    <li>Louvre Museum</li>
    </ul>
    </li>
    <li>USA
    <ul>
    <li>Statue of Liberty</li>
    <li>Golden Gate Bridge</li>
    </ul>
    </li>
    <li>Japan
    <ul>
    <li>Mount Fuji</li>
    <li>Tokyo Tower</li>
    </ul>
    </li>
    <li>Italy
    <ul>
    <li>Colosseum</li>
    <li>Leaning Tower of Pisa</li>
    </ul>
    </li>
    </ol>
    </div>
    </body>
    </html>
```

D. 1. `<BODY style="background-color: red;">`

2. iv.

<div align="center">

Section C
(Case-based/Passage-based Type Questions)

</div>

1. ii.   2. iii.   3. iv.   4. iii.   5. ii.

Previous Years's Questions ⏪

1. (b)   2. (a)   3. (b)   4. (c)
5. (a) H₂O

    (b) E = MC²
6.
```
<!DOCTYPE html>
<html>
<head>
<title>Shopping List</title>
</head>
<body>
<p>Here is a shopping list with categories and items :</p>
<ol>
<li>Vegetables
<ul type="circle">
<li>Carrots</li>
<li>Broccoli</li>
<li>Spinach</li>
</ul>
</li>
<li>Fruits
<ul type="circle">
<li>Apples</li>
<li>Oranges</li>
<li>Bananas</li>
</ul>
</li>
</ol>
</body>
</html>
```
7. (b)
8. (d)
9. (b)
10.
 TAG

    This is an empty tag. It is used to insert a line break. (A line break is like a typewriter's carriage return which takes us back to the left margin in the next line.) This tag is useful when sentences are to be written in separate lines.

For example:

```
ORANGE EDUCATION <BR> INDIA
<P> TAG
```

Paragraph tag is used to begin a paragraph in a web page. When the browser encounters this tag, the text moves into a new line skipping one line from the previous line. The 'Paragraph' tag <P> contains the data and the text level elements which has to be displayed. It has an optional end tag </P> which may be omitted.

For example:

```
ORANGE EDUCATION <P> A Complete Reference Book for Students</P>
```

11.
```
<!DOCTYPE html>
<html>
<head>
 <title>Events</title>
</head>
<body style="background-color:cyan; font-family:Arial; font-size:5;">


<h1>Events</h1>


<p>The following events are scheduled to be held on 1<sup>st</sup>
April, 2023.<br>
The timings are as follows :</p>


<ol>
<li>9:00 AM - 10:00 AM Flag Hoisting</li>
<li>10:00 AM - 11:00 AM Painting Competition</li>
<li>11:00 AM - 12:30 PM Dance Competition</li>
<li>12:30 PM - 1:30 PM Song Competition</li>
<li>1:30 PM - 2:00 PM Closing Ceremony</li>
</ol>


<p><b>For any queries contact <a href="mailto:queries@event.
com">queries@event.com</a></b><br>
<b>Phone : 9999999999</b></p>
</body>
</html>
```

12. (d)   13. (c)   14. (b)   15. (d)   16. (c)

17. (b)	18. (d)	19. (b)	20. (d)	21. (b)	22. (d)
23. (a)	24. (a)	25. (b)	26. (b)	27. (a)	28. (a)
29. (b)	30. (b)				

3. More About HTML

LAB ASSIGNMENT 'N ACTIVITY Page 119-152

Do it yourself.

Unsolved Exercise ❓

Section A
(Objective Type Questions)

A. 1. iii. 2. iii. 3. ii. 4. iii. 5. iii. 6. iv.

7. i. 8. i. 9. ii. 10. iii. 11. i.

B. 1. Graphics Interchange Format 2. `<a>` 3. Bottom

4. Height 5. SRC

C. 1. iii. 2. iv.

D. 1. iii. 2. iii. 3. iii. 4. iii.

Section B
(Subjective Type Questions)

A. 1. A checkbox is like a toggle switch where users can select a desired choice by clicking on the checkbox.

2. `<BLOCKQUOTE>` is a container tag. It contains block-level tags. This tag is used to display the text after leaving a space of two indents from its side margin.

3. `<PRE>` Tag is a container tag. It is used to display the blocked text exactly as it is, with fixed font, spaces, tab spaces returns, etc. The main purpose of this tag is to display the text in a tabular or columnar format exactly as it is typed in the text editor.

4. ALT attribute is used to assign an alternative text that will be displayed over the image when the mouse pointer is placed over it.

5. i. `H<sub>2</sub>SO<sub>4</sub>`

   ii. `(<sup>a</sup><sup>2</sup> + <sup>b</sup><sup>2</sup> + 2ab) + (<sup>a</sup><sup>2</sup> - <sup>b</sup><sup>2</sup> - 2ab)`

6. i. The # symbol in the href attribute refers to a fragment identifier. It is used to link to a specific section within the same web page. The #Sample means that the browser should scroll to the element with the id="Sample" in the current page.

ii. When the user clicks on 'Sample Paper', the browser will look for an element in the same page with an id="Sample". If the element is found, the page will scroll to that element. If no such element exists, nothing will happen (the page will remain where it is).

7. <TR>

8. The name attribute in the <a> tag is used to create a named anchor or bookmark.

9. The <img> tag is used to insert images in HTML.

10. <TD ALIGN="LEFT">

11. The <th> tag is used to create a heading cell in a table.

B. 1. i. Internal Link:
- An internal link refers to a hyperlink that points to a section or page within the same website or document.
- It uses the href attribute with an anchor (#) pointing to an id of an element or a specific location within the same webpage.
- Example: Go to Section 1

External Link:
- An external link is a hyperlink that points to a different website or domain.
- It uses the full URL of the target website.
- Example: Visit Example

ii. <SUB> tag:
- The <sub> tag is used to display text as subscript (text that is lowered and positioned at the bottom of the normal line of text).
- It is commonly used for chemical formulas, mathematical expressions, or other specific notation where text appears below the baseline.
- Example: H₂O (to display H_2O).

<SUP> tag:
- The <sup> tag is used to display text as superscript (text that is raised and positioned at the top of the normal line of text).
- It is commonly used for mathematical powers, exponents, or footnotes.
- Example: E = mc² (to display $E = mc^2$).

iii. HSPACE (Horizontal Space):
- The hspace attribute is used to add horizontal space around an element like an image or a table.
- It defines the left and right margin of the element.
- Example: <img src="image.jpg" hspace="20"> adds 20 pixels of space on either side of the image.

VSPACE (Vertical Space):

- The vspace attribute is used to add vertical space around an element like an image or a table.
- It defines the top and bottom margin of the element.
- Example: <img src="image.jpg" vspace="10"> adds 10 pixels of space above and below the image.

2. i. Radio buttons are used when the user has to make a selection among multiple choices or options. It is generally used for the selection of gender, quiz questions, etc. For example, to accept the gender, the programmer needs to specify two radio buttons "Male" and "Female", which belong to the same group called "Gender" so that while inputting data a user will be able to select either "Male" or "Female" but not both.

ii. A combo box provides option to list down various options in the form of drop-down list, from where a user can select desired option.

iii. <BLOCKQUOTE> is a container tag. It contains block-level tags. This tag is used to display the text after leaving a space of two indents from its side margin.

3. The TITLE attribute is used to specify a title for the document to be linked. Any textual matter that is enclosed within double quotes is set as the value of the TITLE attribute. This attribute is commonly used with various HTML tags to display supplementary details when the user hovers over the element.

For example:

```
<A HREF = "EXTERNAL LINKING2.HTML" TITLE = " Donald Duck" > Text </A>
```

4. Cellpadding attribute is used to specify the space between grid line and content in the cell. The spacing can be increased or decreased by specifying the value in number with this attribute. Syntax to use the CELLPADDING attribute is as follows:

```
<TABLE BORDER = "Value" CELLPADDING="Value">
```

5. The columns and rows of a table can be spanned (merged) by using COLSPAN and ROWSPAN attributes. COLSPAN attribute is used to merge the specified number of columns in one cell whereas, ROWSPAN attribute merges specified number of rows in one cell.

Syntax to use the COLSPAN and ROWSPAN attributes is as follows:

```
<TABLE >
<TR> <TH COLSPAN= "Value"> Text </TH> </TR>
<TR> <TH ROWSPAN= "Value">Text </TH> </TR>
</TABLE>
```

6.
```
<!DOCTYPE html>
<html>
<head>
```

```html
<title>Players Details</title>
<style>
table { width: 80%; margin: 20px auto; border: 2px solid green;
background-color: yellow; }
th, td { padding: 10px; text-align: center; border: 1px solid green; }
th { background-color: green; color: white; }
img { width: 50px; height: 50px; border-radius: 50%; }
</style>
</head>
<body>
<h2 style="text-align: center; background-color: green; color: white;
padding: 10px;">Players Details</h2>
<table>
<tr><th>First Name</th><th>Last Name</th><th>DOB</th></tr>
<tr><td><img src="player1.jpg" alt="Albert"><br>Albert</td><td>Pinto</td><td>8th July, 1976</td></tr>
<tr><td><img src="player2.jpg" alt="David"><br>David</td><td>Jacob</td><td>15th May, 1988</td></tr>
<tr><td><img src="player3.jpg" alt="Michel"><br>Michel</td><td>Atherton</td><td>10th April, 1987</td></tr>
</table>
</body>
</html>
```

Note: Replace player1.jpg, player2.jpg, and player3.jpg with actual image paths.

C. 1. `<img src="Help.jpg" alt="Help Image" style="float: right;">`

2. `<video width="50" height="20" autoplay><source src="intro.mp4" type="video/mp4"></video>`

3.
```html
<!DOCTYPE html>
<html>
<head>
<title>Employee Table</title>
<style>
table {
border: 2px solid black;
width: 300px;
```

```
height: 100px;
border-collapse: collapse;
}
th, td {
padding: 20px;
text-align: center;
border: 1px solid black;
}
</style>
</head>
<body>
<table>
<caption><b>EMPLOYEE TABLE</b></caption>
<tr><th>EMPLOYEE ID</th><th>EMPLOYEE NAME</th><th>DEPARTMENT</th></tr>
<tr><td>1</td><td>ANKIT</td><td>SALES</td></tr>
<tr><td>2</td><td>HEMA</td><td>HR</td></tr>
<tr><td>3</td><td>MANISH</td><td>FINANCE</td></tr>
</table>
</body>
</html>
```

4.
```
<!DOCTYPE html>
<html>
<head>
<title>Skill Workshops</title>
<style>
table { width: 60%; margin: 20px auto; border-collapse: collapse; }
th, td { padding: 10px; border: 1px solid black; text-align: center; }
</style>
</head>
<body>
<table>
<tr>
<th colspan="3"><b>SKILL WORKSHOPS</b></th>
```

```
        </tr>
        <tr><th>SNO</th><th>SKILL</th><th>DAYS</th></tr>
        <tr><td>1</td><td>Communication Skills</td><td>Monday, Wednesday</td></tr>
        <tr><td>2</td><td>Art & Craft</td><td>Tuesday, Friday</td></tr>
        <tr><td>3</td><td>Personality Development</td><td>Wednesday, Saturday</td></tr>
        </table>
        </body>
        </html>
```

Previous Years's Questions ⏪

1.  ```
    !DOCTYPE html>
    <html>
    <head>
    <title>Ayesha's Video</title>
    </head>
    <body>
    <h2>Ayesha's Video Creations</h2>
    <video width="350" height="250" controls>
    <source src="Ayeshahits.mp4" type="video/mp4">
    </video>
    </body>
    </html>
    ```

2.  ```
    <!DOCTYPE html>
    <html>
    <body>
    <h2>Student Data Input Form</h2>
    <form>
    Name: <input type="text" name="name"><br><br>
    Subscribe for Newsletter: <input type="checkbox" name="newsletter"><br><br>
    Gender: <input type="radio" name="gender" value="Male"> Male
            <input type="radio" name="gender" value="Female"> Female
            <input type="radio" name="gender" value="Other"> Other<br><br>
    ```

```
Country: <select name="country">
<option value="USA">USA</option>
<option value="Canada">Canada</option>
<option value="UK">UK</option>
</select><br><br>
<input type="submit" value="Submit">
</form>
</body>
</html>
```

4.
```
<!DOCTYPE html>
<html>
<head>
<title>Activity Member Details</title>
<style>
table { width: 100%; border: 1px solid black; border-collapse:
collapse; }
th, td { padding: 10px; border: 1px solid black; text-align: left; }
</style>
</head>
<body>
<table>
<tr><td rowspan="5" style="text-align: center;"><b>DETAILS</b></
td></tr>
<tr><th>ACTIVITY</th><th>MEMBER NAME</th><th>AGE</th><th>Email</
th></tr>
<tr><td>Chess Club</td><td>John Doe</td><td>28</td><td>john.doe@
example.com</td></tr>
<tr><td>Photography Club</td><td>Jane Smith</td><td>24</td><td>jane.
smith@example.com</td></tr>
<tr><td>Football Club</td><td>Michael Johnson</td><td>31</
td><td>michael.johnson@example.com</td></tr>
</table>
</body>
</html>
```

5. The <AUDIO> element enables to embed audio in web pages. Syntax to use the <AUDIO> tag is as follows:

```
<AUDIO CONTROLS>
<SOURCE SRC="Name of the Audio File" TYPE="AUDIO/WAV">
</AUDIO>
The following HTML code uses the <AUDIO> tag to insert audio
<HTML>
<HEAD>
<TITLE>
INSERTING SOUND USING <AUDIO> TAG
</TITLE>
<BODY>
<AUDIO CONTROLS>
<SOURCE SRC="SOUND.MP3" TYPE="AUDIO/MP3">
</AUDIO>
</BODY>
</HTML>
```

6. The following HTML code uses the <INPUT> tag with the TYPE, NAME, and VALUE attributes to create radio buttons for selecting gender.

```
<HTML>
<HEAD>
<TITLE>
ADDING A RADIO BUTTON
</TITLE>
</HEAD>
<BODY>
<FORM>
Gender:
<INPUT TYPE="RADIO" NAME="Gender" VALUE="Male" CHECKED> Male
<INPUT TYPE="RADIO" NAME="Gender" VALUE="Female" CHECKED> Female
</BODY>
</HTML>
```

The output of the preceding HTML code is as follows:

Gender: ○ Male ● Female

7. (d)

8.
```html
<!DOCTYPE html>
<html>
<head>
<style>
body { color: tomato; background-color: lightblue; font-family:
Helvetica; }
table { width: 50%; border: 1px solid black; border-collapse:
collapse; margin: 20px auto; }
th, td { padding: 10px; text-align: center; border: 1px solid black; }
th { background-color: lightgray; }
</style>
</head>
<body>
<table>
<tr><th>Roll Number</th><th>Name</th><th>Marks</th><th>Class
Average</th></tr>
<tr><td>1</td><td>Amit</td><td>95</td><td rowspan="3">96</td></tr>
<tr><td>2</td><td>Angel</td><td>96</td></tr>
<tr><td colspan="4" style="text-align:left;">Teacher Mr. Hamid</
td></tr>
</table>
</body>
</html>
```

4. Cascading Style Sheets

Lᴀʙ Assɪɢɴᴍᴇɴᴛ 'ɴ Aᴄᴛɪᴠɪᴛʏ Page 175

Do it yourself.

Lᴀʙ Assɪɢɴᴍᴇɴᴛ 'ɴ Aᴄᴛɪᴠɪᴛʏ Page 183

Do it yourself.

Unsolved Exercise ❓

Section A
(Objective Type Questions)

A. 1. i. 2. iii. 3. iii. 4. i. 5. ii

  6. ii. 7. ii. 8. iii.

B. 1. CSS   2. Selector, Declaration

3. Curly braces, Semicolon   4. Background-color

5. \<head\>

C. 1. iv.   2. i.

D. 1. i.   2. iii.   3. iv.

<div align="center">

Section B
(Subjective Type Questions)

</div>

A. 1. The CSS border properties enable to specify the style, width and colour of a border.

2. The value width could be either a length in 'px', 'pt' or 'cm' or it should be set to thin, medium or thick.

3. CSS 'margin' properties enable to create space around an HTML element, outside any border. It is also possible to use negative values to overlap the content.

4. The 'float' property is used for positioning and formatting content. It wraps the text around the images. The float property can be set with values such as left, right, none, etc.

5. The 'float' property is used for positioning and formatting content.

6. \<link\>

7. Selector could be any tag like \<H1\>, \<TABLE\>, etc.

8. A CSS comprises of style rules that are interpreted by the web browser and then applied to the corresponding elements in a document.

9. The height and width can be specified in length whose values can be in 'px', 'cm', etc. or in percent (%) of the containing block.

B. 1. Cascading Style Sheet' is commonly referred to as CSS. CSS is a simple design language which enables to simplify the process of making web pages. It handles and describes how an HTML web page will be presented on a web browser. It helps to save lot of time as one design layout can be used to make more number of web pages. Using CSS, web designer can control the text colour, font style, paragraph spacing, columns size, background images, layout designs, etc.

A CSS comprises of style rules that are interpreted by the web browser and then applied to the corresponding elements in a document. Its style rule is made of two parts i.e., 'Selector' and 'Declaration'. 'Declaration' can be further categorised into 'Property' and 'Value'. Syntax is:

```
Selector {
Property1: Value1;
Property2: Value2;
Property3: Value3;
}
```

2. The CSS border properties enable to specify the style, width and colour of a border.

- Border Style: The 'border-style' property specifies the outline style of border.

《《《《《《《《《《《《《《《《《《《《《《《《《《《《《《

- Border Color: The 'border-color' property enables to set the colour of the four sides of border. All the four sides of a border can also be individually customised to have different colours in each side. If the colour of border is not set, it inherits the colour of the text which is surrounded by the border.

- Border Width: The 'border-width' property enables to set the width of a border. The value width could be either a length in 'px', 'pt' or 'cm' or it should be set to thin, medium or thick. All the four sides of a border can also be individually customised to have different width in each side.

3. ALIGN attribute is used for horizontal alignment. The values that are used with this attribute are LEFT, RIGHT or CENTER. The syntax for using the ALIGN attribute with the <P> tag is as follows:

```
<P ALIGN = "RIGHT" > Paragraph Content which appears here.</P>
```

4. i.
```
!DOCTYPE html>
<html>
<head>
<title>FONT SIZE EXAMPLE</title>
</head>
<body>
<p style="font-style: italic; font-size: 40px; font-family:
'Arial', sans-serif;">
THIS TEXT WILL BE RENDERED IN ITALIC STYLE AND FONT SIZE OF 40PX.
</p>
</body>
</html>
```

ii.
```
<P STYLE OUTLINE: Value_of_Width Style Colour; OUTLINE-OFFSET:
Value;">
TEXT
</P>
<HTML>
<HEAD>
<TITLE>
Paragraph with Red Outline and offset.
</TITLE>
</HEAD>
<BODY>
<P STYLE="MARGIN: 30PX; BORDER:2PX SOLID BLACK;
OUTLINE: 5PX SOLID RED;OUTLINE-OFFSET:15PX;">
This paragraph has red coloured outline of 5px but
```

```
15px outside the border edge.
</P>
</BODY>
</HTML>
```

iii.
```
<P STYLE="HEIGHT:Value; WIDTH:Value">
TEXT
</P>
<HTML>
<HEAD>
<TITLE>
</TITLE>
<BODY>
<P STYLE="HEIGHT: 100PX;
WIDTH: 200PX;
BACKGROUND-COLOR:PINK;">
This element has a height of 100px and a width of 200px.
</P>
</BODY>
</HTML>
```

5. i.
```
<!DOCTYPE html>
<html>
<head>
<title>New Year</title>
</head>
<body>
<h1 style="background: violet;">
Happy New Year
</h1>
</body>
</html>
```
Output:

The text "Happy New Year" will appear with a violet background.

ii.
```
<!DOCTYPE html>
<html>
<head>
<title>Text Alignment Example</title>
```

```
</head>
<body>
<p style="text-align: right;">
THIS TEXT IS ALIGNED RIGHT.
</p>
<p style="text-align: center;">
THIS TEXT IS ALIGNED IN CENTER.
</p>
</body>
</html>
```
Output:

THIS TEXT IS ALIGNED RIGHT.

THIS TEXT IS ALIGNED IN CENTER.

C. 1. To set a background image that fills only the top of the screen, Niransh can use the background-image property along with background-size and background-position properties in CSS.

2. Ashmit can use the border-width property in CSS to set the width of the border around an element. He can also define the type and color of the border along with the width.

Previous Years's Questions ⏪

1. iv.

2. Cascading Style Sheet' is commonly referred to as CSS.

- CSS is a simple design language which enables to simplify the process of making web pages. It handles and describes how an HTML web page will be presented on a web browser. It helps to save lot of time as one design layout can be used to make more number of web pages.

- Using CSS, web designer can control the text colour, font style, paragraph spacing, columns size, background images, layout designs, etc.

a. (i)
```
body {
background-color: yellow;
}
```
(ii)
```
h2 {
color: red;
margin-left: 25px;
}
```
OR

b. (i)
```
h1 {
color: green;
text-align: center;
}
```
(ii)
```
<!DOCTYPE html>
<html lang="en">
<head>
<title>School</title>
<style>
h1 { color: green; text-align: center; }
p { color: yellow; font-size: 25px; font-weight: bold; }
</style>
</head>
<body>
<h1>My School</h1>
<p>This is my School<br>I study in class 12</p>
</body>
</html>
```

5. Cyber Ethics

Unsolved Exercise ❓

Section A
(Objective Type Questions)

A. 1. iv. 2. iv. 3. iii. 4. iv. 5. iii.
  6. iv. 7. i. 8. ii. 9. iv. 10. iv.

B. 1. Integrity 2. Netiquettes 3. Flaming 4. Software License
  5. Right to Information

C. 1. iv. 2. iv.

D. 1. iii. 2. i. 3. iv. 4. iv.

Section B
(Subjective Type Questions)

A. 1. i. Flaming: Insensible messages sent in a social group or chat considered as insults.

  ii. Netiquette: Behaviour or informal guidelines followed by the users of the Internet.

iii. Chat and IM: Chat and Instant Messaging (IM) are Internet features that allow users to interact with people in real time.

iv. Intellectual Property Right: 'Intellectual Property Right' is the legal right that covers the privileges of an individual who has created or invented something with his own intellectual ability or creativity and is the owner of his work.

v. Freedom of Information: Freedom of Information is the right to obtain information from any public authority by making a request in writing or through electronic means, to the concerned Information Officer or department specifying the particulars of the information sought by him.

vi. Digital Divide: Digital divide is a term that refers to the gap between those who have access to the resources of modern information and communications technology, and those that have restricted access.

2. E-mail netiquettes are the basic etiquettes and courtesy that should be followed while sending e-mails. While exchanging e-mail, we should take care to respect the receiver.

3. Names of Open Source Software Licenses: Apache License 2.0, GNU General Public License (GPL), MIT License, Mozilla Public License 2.0.

4. Open Source Software: OSS are those software that are free to be used and whose source code (programmed codes) is also available to make further changes and to customise as per the need of any programmer.

5. This is known as E-commerce fraud.

6. Digital divide.

7. Intellectual Property Right.

8. End-User License Agreement.

9. Spam.

B. 1. i. Proprietary vs Shareware Software:

The codes of program i.e., software is copyrighted by the developer or owner, for sale of its license or usage right to others. Such software are said to be proprietary software. Source code is hidden in proprietary software. Shareware (also termed trialware or demoware) is proprietary software that is provided to users without any payment on a trial basis and is often limited by any combination of functionality, availability, or convenience (the software may present a dialog at startup or during usage, reminding the user to purchase it).

ii. OSS vs FOSS:

OSS(Open Source Software) are those software that are free to be used and whose source code (programmed codes) is also available to make further changes and to customise as per the need of any programmer. Free and Open Source Software (FOSS) can be classified as both free software and open source software i.e., anyone is freely licensed to use, copy, study and change the software in any way and the source code is openly shared so that users or developers are encouraged to voluntarily improve the software.

2. Four Freedoms of Free Software:

   Freedom 1: The freedom to run the program as per the wish of user, for any purpose.

   Freedom 2: The freedom to study how the program works and change it to customise for self. Access to the source code is a precondition for this.

   Freedom 3: The freedom to redistribute copies or help others to access and use.

   Freedom 4: The freedom to distribute the copies of the updated or modified versions to others. By doing this, the programmer can give the whole community a chance to benefit from the changes.

3. Open Source Movement is a kind of movement that supports, encourages and helps to create awareness for the use of open source licenses software. Programmers who support the open source movement philosophy contribute to the open source community by voluntarily writing and exchanging programming code for software development.

4. Ethical Conduct in E-Commerce:

   i. Confidentiality: Information uploaded during e-commerce transaction should not be accessible to an unauthorized user. It should not be intercepted during the transmission of details.

   ii. Integrity: Information should not be altered during its transmission over the network.

   iii. Authenticity: There should be a mechanism to authenticate a user before giving him/her an access to the required information.

   iv. Encryption: Information should be encrypted and decrypted only by an authorised user.

   v. Auditability: Data should be recorded in such a way that it can be audited for integrity requirements.

C. 1. e-Commerce.

2. Web service: Social Media (e.g., Facebook, Instagram).

   Precaution: Do not disclose personal details or meet strangers in person.

Previous Years's Questions ⊛

1. Software License is the authorisation to use a software. Most of the software are licensed rather than being sold, which means buyers are never the actual owners of the software, although they may be able to use it without any time limit or may become owner of a copy of such software. Example of free software license: GNU GPL. Example of proprietary license: Microsoft Windows.

2. Plagiarism is the act of copying someone else's work and publishing and pretending as if it is one's own work. This can include copying of texts, media and even ideas. Whenever another person's work is copied and republished without an appropriate reference or citation, it is considered as Plagiarism. Examples:

- When you copy and paste a part of text without giving a credit to the author, it is referred to as direct or copy-paste plagiarism.
- Sometimes, we even tend to plagiarize our own work, by submitting a previously used work for a new project. This is called self plagiarism.

3. Intellectual Property Right is the legal right that covers the privileges of an individual who has created or invented something with his own intellectual ability or creativity and is the owner of his work. Intellectual Property Rights protect digital work by granting exclusive rights to creators over their work.

   Two ways to avoid plagiarism:
   - Cite all sources used.
   - Use a plagiarism checker before submission.

4. (a) Plagiarism.
   (b) Intellectual Property Rights.
   (c) Ensure secure payment gateways and data encryption.
   (d) Behave in the same manner as you would behave in real life. Treat others as you would like to be treated yourself and respect other people's privacy.

5. Two ways to reduce the digital divide:
   - Provide digital literacy training.
   - Improve access to affordable Internet.

6. (a) Privacy
   (b) Cyber Ethics
   (c) Password
   (d) Logout
   (e) Respect privacy and share only authentic content.

7. (c)	8. (d)	9. (b)	10. (b)	11. (d)
12. (d)	13. (c)	14. (d)	15. (b)	16. (d)
17. (b)	18. (b)	19. (a)	20. (b)	21. (d)

22. (i)   (d)
    (ii) (b)
    (iii) (d)
    (iv) (a)
    (v)   (a)