

Biyani's Think Tank

Concept based notes

Website Development

(M.Sc. I. T. Sem.-II)

Deptt. of Information Technology
Biyani Girls College, Jaipur



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Preface

I am glad to present this book, especially designed to serve the needs of the students. The book has been written keeping in mind the general weakness in understanding the fundamental concept of the topic. The book is self-explanatory and adopts the “Teach Yourself” style. It is based on question-answer pattern. The language of book is quite easy and understandable based on scientific approach.

Any further improvement in the contents of the book by making corrections, omission and inclusion is keen to be achieved based on suggestions from the reader for which the author shall be obliged.

I acknowledge special thanks to Mr. Rajeev Biyani, *Chairman* & Dr. Sanjay Biyani, *Director (Acad.)* Biyani Group of Colleges, who is the backbone and main concept provider and also have been constant source of motivation throughout this endeavour. We also extend our thanks to M/s. Hastlipi, Omprakash Agarwal/Sunil Kumar Jain, Jaipur, who played an active role in co-ordinating the various stages of this endeavour and spearheaded the publishing work.

I look forward to receiving valuable suggestions from professors of various educational institutions, other faculty members and the students for improvement of the quality of the book. The reader may feel free to send in their comments and suggestions to the under mentioned address.

Author

Syllabus

M.Sc. I.T. Sem.-II

Web Site Development

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World Wide Web: Elements of the Web, Web browser, viewing Pages with browsers, using a browser for mail, News and chat, Security and Privacy issues (cookies, firewalls, executable Applets and Scripts, blocking systems), Netscape navigator and Communicator and features therein, Internet Explorer and Features there in, Lynx, Opera, finding and installing players, plug-Ins and Active X controls, Dealing with web pages that contains ActiveX, Java and Java Scripts, Playing streaming Audio and Video, Playing MP3 music, Using search engines Subscription and channels, making use of web resources (portal, News and Weather, Sports, Personal Financing and Investing, Entertainment, Shopping Computers and Internet, Travel, Health and Medicine, Communication and Clubs), Introduction to E-Commerce.

Section B

Creating and Maintaining Web Sites: Planning, Navigation and Themes, elements of a web page, steps of creating a site, publishing and publicizing site, steps of creating a site, publishing and publicizing site, structuring web site, starting a web page (HTML Tags, Standard Tags), Formatting Text, Adding Pictures and Links, Gathering information in forms, formatting page in frames, formatting web page by using styles, creating web page by using web editors (Netscape composer, FrontPage express 2000), creating web graphics, using GIF, JPEG, getting web clip art, Progressive Display and Transparency, Optimizing images on the web, animating web graphics, Anti-aliasing, Image Slicing, Seamless Tiling, Multimedia graphics, Capturing Audio, Generating the audio files, editing, processing, encoding and linking the audio files, uploading web pages, uploading by using FTP, net load, front page express and Netscape composer, analyzing web traffic , Building traffic to your site , file transfer protocol (FTP) and file transfer protocol and programs

Section C

Dynamic HTML development tools: VRML, XML, JavaScript Flash, Active Server Pages WAP and WML.

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Chapter -1 World Wide Web

Q.1. What is firewall? Explain its importance.

Ans.: The hardware, software, and procedures that provide access control make up a *firewall*. A firewall can limit Internet access to e-mail only, so that no other types of information can pass between the intranet and the Internet . Firewall systems fall into two categories,
network-level
application-level.

Network-Level Firewalls

These firewalls examine only the headers of each packet of information passing to or from the Internet. The firewall accepts or rejects packets based on the packet's sender, receiver, and port.

Application-Level Firewalls

These firewalls handle packets for each Internet service separately, usually by running a program called a *proxy server*, which accepts e-mail, Web, chat, newsgroup, and other packets from computers on the intranet, strips off the information that identifies the source of the packet, and passes it along to the Internet. When the replies return, the proxy server passes the replies back to the computer that sent the original message. A proxy server can also log all the packets that pass by, so that you have a record of who has access to your intranet from the Internet, and vice versa.

Q.2. Write short note on:

- (i) E-mail (ii) E-Commerce (iii) Plug ins and Active X

Ans.: **E-mail**:- email is also called **Electronic mail**. It is a method of exchanging **digital** messages across the **Internet** or other **computer networks**. Today's email systems are based on a *store-and-forward* model. Email *servers* accept, forward, deliver and store messages. Users no longer need be online simultaneously and need only connect to an *email server*, for as long as it takes to send or receive messages.

An email message consists of two components, the message *header*, and the message *body*. The message header contains control information, including, generally, an sender's *email address* and one or more recipient addresses. Usually additional information is added, such as a subject header field. Email is carried by the *Simple Mail Transfer Protocol* (SMTP), first published as *Internet standard*

E-Commerce:

Electronic commerce, commonly known as e-commerce, consists of the buying and selling of products or services over electronic systems such as the Internet and other computer networks. The amount of trade conducted electronically has grown with widespread Internet usage. A large percentage of electronic commerce is conducted entirely electronically for virtual items such as access to premium content on a website, but most electronic commerce involves the transportation of physical items in some way. Online retailers are sometimes known as e-tailors and online retail is sometimes known as e-tail.

Electronic commerce that is conducted between businesses is referred to as business-to-business or B2B. B2B can be open to all interested parties or limited to specific participants (private electronic market).

Electronic commerce that is conducted between businesses and consumers is referred to as business-to-consumer or B2C. Online shopping is a form of electronic commerce where the buyer is directly online to the seller's computer usually via the internet. There is no intermediary service.

The sale and purchase transaction is completed electronically and interactively in real-time. Electronic commerce is generally considered to be the sales aspect of e-business. It also consists of the exchange of data to facilitate the financing and payment aspects of the business transactions.

Plug-ins and Active X:

Sometimes, a player can't handle the information on a Web page. Players work only if information is stored in a separate file and you want it to appear in a separate window, not in your browser window. Hence two other types of programs: plug-ins and ActiveX controls are used to handle audio, video, and other information right in your browser. A *plug-in* is a program that can "plug in" to your browser, to give the browser a new capability. Most plug-ins works with Internet Explorer, NN and some work with Opera too. Plug-ins works with browser seamlessly, so that after you install them, you can forget that they are

not part of your browser. Netscape originally invented the idea of plug-ins, but Microsoft makes sure that Internet Explorer can use most of them, too.

ActiveX controls are programs that work with Internet Explorer and other programs, but not with Netscape Navigator. Many programs are available as both plug-ins and ActiveX controls.

Typically, a plug-in or ActiveX control is born when a software company develops a new type of information to play or display on the Web—for example, sound or video. Rather than trying to convince Netscape and Microsoft and other browser, to make their browsers capable of playing or displaying this new type of information, the software company creates a plug-in or ActiveX control that can handle the task of playing or displaying the new information within the browser. People who want to extend the capabilities of Netscape Navigator can download and install the plug-in, and Internet Explorer users can download and install the ActiveX control.

Many plug-Ins include a stand-alone player, in case you want to display files when you are not browsing the Web.

Q.3. Write a short note on Internet security (E-mail, Threat, and Firewall)?

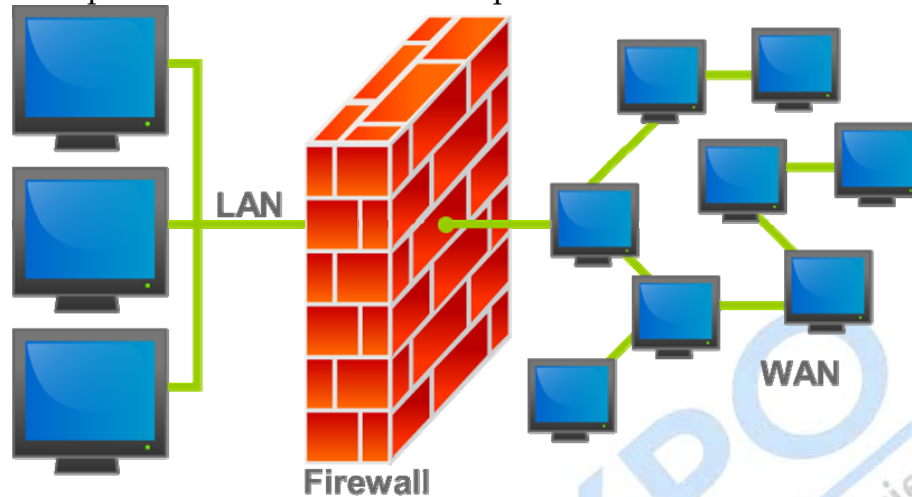
Ans.: When a computer connects to a network and begins communicating with other computers, it is essentially taking a risk. Internet security involves the protection of a computer's Internet account and files from intrusion of an unknown user. Basic security measures involve protection by well selected passwords, change of file permissions and back up of computer's data.

E-mail Threat:- email when sent across the internet is more like a post card. It can be intercepted at any stage and read by anybody who can lay his hands on it. To ensure the secrecy of the message, the sender as well as the receiver should agree on a secret key. Another way of ensuring the secrecy of e-mail message is through the use of a technique called signing a message.

Fire wall:-

In order to keep a corporate network secure, companies protect and isolate their internal systems from the Internet with a network firewall. Simply put, a firewall prevents certain outside connections from entering your network. A firewall will trap inbound or outbound packets, analyses them, and then either permit access or discard them. The firewall s a subsystem of computer software and hardware that intercepts data packets before allowing them into or out of a Local Area Network (LAN). A firewall makes decisions on whether or not data is

allowed to pass based upon a security policy. For each packet of data, the firewall compares known components of the packet to a security rule set and decides if the packet should be allowed to pass.



There are several types of firewall techniques:

- Packet filter: Looks at each packet entering or leaving the network and accepts or rejects it based on user-defined rules. Packet filtering is fairly effective and transparent to users, but it is difficult to configure.
- Application gateway: Applies security mechanisms to specific applications, such as [FTP](#) and [Telnet](#) servers.
- Circuit-level gateway: Applies security mechanisms when a TCP or UDP connection is established. Once the connection has been made, packets can flow between the hosts without further checking.
- Proxy server: Intercepts all messages entering and leaving the network. The proxy server effectively hides the true network addresses.

Q.4. what are search Engine? How do they work? Give three example of search engine?

Ans- A *search engine* is a database application that retrieves information, based on words or a phrase that you enter. A Web search engine employs a *search agent* (also called a *spider*) that goes out and looks for information on Web pages. This information is indexed and stored in a huge database. When you conduct a search, the search engine looks through its database to find entries that match the

information you entered. Then, the search engine presents to you a list of the Web pages that it determines are most relevant to your search criteria.

Some ex of search engines:-

Altavista

Google

Yahoo

Q.5. Explain different properties and components of Netscape navigator.

Ans. Netscape Communications commonly known as Netscape is a US computer services company, best known for its web browser.

Netscape developed the Secure Sockets Layer Protocol (SSL) for securing online communication, which is still widely used, as well as JavaScript, the most widely-used language for client-side scripting of web pages.

Toolbars: This will tell you how to rearrange, hide, add, and remove toolbars in Navigator.

Menu Bar: This is the toolbar that contains the browser menus (File, Edit, Help, etc.).

Navigation Bar: This is the toolbar that contains the Location Bar and the buttons used to navigate web sites.

Bookmarks Toolbar: This is the toolbar that contains your Bookmarks Toolbar Folder bookmarks.

There are two basic methods of customizing the toolbars in Navigator:

- * Rearranging Toolbar Items
- * Hiding, Adding, and Removing Toolbars

Navigating Web Pages

You can move to a new web page by typing in its Internet address or URL into the Location Bar.

Or Click the Location Bar to select the URL that is already there.

Or Clicking a Link

Most web pages contain links you can click to move to other pages.

- * To go back or forward one page, click the Back or Forward button.
- * To see a list of any URLs you've typed into the Location Bar, click the down arrow at the right end of the Location Bar. To view a page, choose it from the list.
- * To choose from pages you've visited during the current session, open the History menu and use the list in the bottom section of the menu.
- * To choose from pages you've visited during the past several sessions, open the History menu and choose Show in Sidebar. You will see the History Sidebar. The History Sidebar displays a list of folders. Clicking the folders displays subfolders or titles of web pages. You can click a page's title to view that page.

Stopping and Reloading

If a page is loading too slowly or you no longer wish to view a page, click the Stop button.

To reload the current page or to get the most up-to-date version, click the Reload button or press Ctrl+Cmd+R.

Tabbed Browsing

When you visit more than one web page at a time, you can use Tabbed Browsing to navigate the Web faster and easier.

Viewing Your Home Page: When you start Navigator, you will see your home page. By default, you will see Navigator's home page.

Tips:

- * To display more web content on the screen, you can use Full Screen mode. Full Screen mode condenses the Navigator's Toolbars into one small toolbar. To enable Full Screen mode, simply select View > Full Screen or press F11.

Q.6. Explain the different features of Internet Explorer in detail?

Ans.: Elements of the Internet Explorer Window:-

Internet Explorer runs inside a window that provides you with an array of menus, buttons, labels, and information displays. From top to bottom, it contains a menu bar, a Standard Buttons toolbar, an Address bar, a Links bar, an Explorer bar, a viewing window, and a status bar.

-The Standard Buttons Toolbar :Internet Explorer's Standard Buttons toolbar enables you to invoke several of the most frequent commands with a single click.



It is very similar to Navigator's toolbar; The Internet Explorer toolbar appears above the viewing window, just below the menu bar

To hide this toolbar, uncheck View | Toolbars | Standard Buttons in Windows versions, or View | Button Bar in Macs.

The Standard Buttons toolbar contains the following buttons; from left to right

Back:- Returns you to the Web page previously displayed in the viewing window. If multiple IE windows are open, each maintains its own list of displayed pages.

Forward:- Undoes what Back has done. After you click the Back button or select a previously viewed page from the Back menu, the pages subsequent to that page are transferred from the Back menu to the Forward menu.

viewing window :- Area which display your the content of page

Stop:- stop the process of downloading a page from the Web.

Refresh:- Asks the server to send the most recent version of the page you are Viewing.

Home :- Returns you to your Start page.

Search :Opens one of the major Internet search engines in the Explorer bar.

_ Favorites, History, and Channels :- Display the Favorites, History, or Channels folder trees on the Explorer bar. The Channels button appears in IE 4 but not IE 5.

_ Full screen:- Shrinks all icons and toolbars, to maximize the viewing area. If the browser window is already in full-screen mode, click the Full screen button again to return the browser window to its previous state.

Mail :Opens your designated e-mail client. By default, this is Outlook Express.

_ Fonts :Lets you increase or decrease the size of all fonts on the Web pages that you view, without changing the default settings.

_ Print- Opens a Print dialog box.

_ Edit :Opens the currently displayed page in your designated

The Links Bar :The Links bar is a row of icons linked to Web pages. It is the most convenient, easiest-to-access place to put links to Web sites that you visit regularly.

To add a link to the Links bar, open the page that you want to link, and then drag and drop the Internet Explorer icon from the Address bar to the Links bar

The Status Bar: The status bar displays a variety of useful information. When the cursor passes over a link in the viewing window, the URL of the link appears in the status bar.

You can open a Web page by typing or pasting its URL into the Address bar and Pressing ENTER. The list that drops down from the Address bar remembers the last 25 URLs that you have typed in; you may select one of these from the list rather than typing it.

Q.7. what is difference between website and portal?

Ans.:

A Website is all the pages, images and files contained under a domain name. A website is a collection of web pages belonging to a particular person or organization. Typically the URLs of web pages share a common prefix, which is the address of the home page of the site. The home page in the "Front page" of the site and is set up to help viewers find whatever is of interest to them on that site. The URL of the home page also serves as the URL of the website.

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A Web Portal is a type of Website. A portal is web site that wants to be your start page, that your browser displays first. Apart from the standard search engine feature, web portals offer other services such as e-mail, news, stock prices, information, databases and entertainment. Examples of public web portals are AOL, [iGoogle](#), MSNBC, [Netvibes](#), and Yahoo

Chapter-2 Creating and Maintaining Web Sites

Q.1. what is cookies? Explain its importance.

Ans.: **cookies**

A *cookie* is a small file that a Web server can store on your machine. Its purpose is to allow a Web server to personalize a Web page, depending on whether you have been to that Web site before, and what you may have told it during previous sessions. When you return to that Web site in the future the Web server can read its cookie, recall this information, and structure its Web pages accordingly. However, cookies do make it easier for advertising companies to gather information about your browsing habits.

Q.2. what is DHTML? Does working of DHTML depend on the type of browser we use? Explain.

Ans.:DHTML stands for Dynamic HTML. DHTML is the combination of HTML and JavaScript. DHTML is the art of combining HTML, JavaScript, DOM, and CSS.

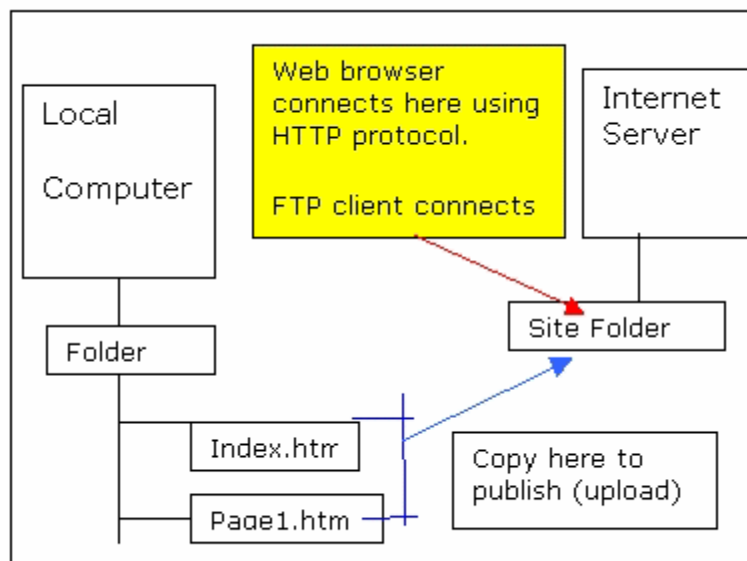
According to the World Wide Web Consortium (W3C):
"Dynamic HTML is a term used by some vendors to describe the combination of HTML, style sheets and scripts that allows documents to be animated."

DHTML is the combination of several built-in browser features in fourth generation browsers that enable a web page to be more dynamic

Q.3. what do you understand by uploading of a webpage? How can it be done?

Ans.: Uploading web pages to the Internet makes them accessible to Internet users. You normally create the Website in a folder located on your local computer. Uploading or Publishing a web page/pages simply copies the page from your local computer to the Internet. Normally you upload web pages using the FTP protocol, however most of the HTML editors have their own in built publishing mechanism.

Uploading Web Pages - When we upload (publish) a Web page we simply copy the file from a folder on our local computer to a folder on a computer on the Internet. Our Website is simply a folder containing files. Normally when you first create a website, all of the files in the local folder are uploaded to the Internet server. Subsequent updates are done by uploading individual files/pages to either replace existing ones or to add to the site content.



FTP (File transfer Protocol) is the most common method used to upload web pages to the Internet server. The process is simply a file copy from your PC to the web server.

The general procedure is as follows:

1. Connect to server
2. Login by entering username and password.
3. Upload files to server.
4. Verify that files have been transferred.
5. Logout.

Q.4. write all the steps of hosting a website using FTP.

Ans.: To transfer the file across the Internet, you have several choices:

- _ Transfer the file using one of the Internet services: e-mail or the Web.
- _ Use software specially designed to transfer “any file,” software that uses a special protocol called *File Transfer Protocol (FTP)*.

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Connecting to the FTP Server

To connect to an FTP server, you give the host name of the server to your FTP client software and then you log in. You can log in to an FTP server in one of two ways:

_ If you have an account on the FTP server, you log in with a user name and password. You can access all the files that your user name gives you permission to use. If you don't have an account on the FTP server, you can log on anonymously. Once you have logged in to an FTP server, the server may display welcoming and instructional text about using the server.

FTP servers transmit messages to let you know what's going on. Once you are Connected to an FTP server, you select a particular folder, called the *current working directory*, from which you will download, or to which you will upload, files. If you have permission to do so, you may be able to create additional folders, rename folders, or delete them.

To upload a single file, use the put command. To upload a group of files, use the mput command.

Q.5. compare static and streaming web audio file.

Ans.:Web audio formats generally fall in two categories : static and streaming. Ordinary audio files are also called static files and can be of various formats and quality. Commonly used formats include WAV, AIFF, AU and MP3 files.

Streaming audio files allow the user to start hearing sound within a few seconds of the beginning of the download .After several seconds, during which the user's streaming player program buffers the first part of the data, the audio begins playing and continues as the program downloads further portion of the file .

Q.6. explain Progressive display and transparency.

Ans- **Progressive Display**:. On many Web pages, the images don't appear until after they have been completely downloaded, or they appear gradually from top to bottom. With progressive display, the image starts blurry and gradually becomes more detailed over the entire image area as it is downloaded. A GIF file that the browser displays progressively is called an *interlaced* GIF image. A JPEG file that displays progressively is simply called *progressive JPEG*.

Transparency:

Transparency is a way of making graphics look like they are drawn directly on a Web page, rather than drawn on a rectangular piece of paper and then pasted on. Web pages often have a background color, image, or pattern. When an image on a Web page has transparent portions, that page background shows through the image's transparent portions. Without transparency, the image appears in a

rectangular area with its own background color. Transparency is only available for GIF (and PNG) images, not JPEG images.

Q.7. how do we analysis Web Traffic.

Ans.: Once your Web site is up and running, you'll probably have an ongoing interest in knowing how well it is attracting visitors. The Web server program creates an entry in a log file every time the server responds to a request for an HTML document, graphic, form, or other service.

This means that every user is tracked during every visit to your site.

A number of traffic analyses Programs on the market can crunch these huge files to produce tables and graphics that summarize a Web server's act

Q.8. Describe any four standard HTML tags .

Ans.: **standard Html tag**

<HTML> Every HTML page starts with an <HTML> tag and ends with an </HTML> tag. This tag simply denotes that the page is coded in HTML, the language of Web pages.

_ <HEAD> The HEAD section (which starts with <HEAD> and ends with </HEAD>) is reserved for tags that apply to the entire document, including the <TITLE> tag.

_ <TITLE> The <TITLE> tag is required in the HEAD section. The text that you enter between the <TITLE> and </TITLE> tags is displayed on the title bar of the browser window when you view the page.

_ <BODY> The BODY section, starting with a <BODY> tag and ending with a </BODY> tag, contains the content of your Web page. Most of the tags –including tags to format text, links, and graphics on your page– are included in the BODY section.

<CENTER> Tells the browser to center text across the line, up to the matching </CENTER> tag

. Q.9. what is the use of anchor tag?

Ans.: The <a> tag defines an anchor. An anchor can be used in two ways:

1. To create a link to another document, by using the href attribute
2. To create a bookmark inside a document, by using the name attribute

The most important attribute of the <a> element is the href attribute, which indicates the link's destination.

By default, links will appear as follows in all browsers:

- An unvisited link is underlined and blue
- A visited link is underlined and purple
- An active link is underlined and red

Q.10. How do we create tables in HTML? Explain with suitable example,

Ans. Tables are defined with the <table> tag. A table is divided into rows (with the <tr> tag), and each row is divided into data cells (with the <td> tag). The letters td stands for "table data," which is the content of a data cell. A data cell can contain text, images, lists, paragraphs, forms, horizontal rules, tables, etc.

Representing a table involves several kinds of HTML tags:

- TABLE tags, which surround the entire table specification
- an optional CAPTION element specifying the caption (name) of the table
- TR tags, which specify the table rows
- TH tags, which specify table row and column headers
- TD tags, which specify the data in the table, i.e. the contents of table cells.

```
<table border="1">
<tr>
<td>row 1, cell 1</td> <td>row 1, cell 2</td>
<td>row 1, cell 1</td> <td>row 1, cell 2</td>
</tr>
<tr>
<td>row 2, cell 1</td> <td>row 2, cell 2</td>
<td>row 2, cell 1</td> <td>row 2, cell 2</td>
</tr>
<tr>
<td>row 2, cell 1</td> <td>row 2, cell 2</td>
<td>row 2, cell 1</td> <td>row 2, cell 2</td>
</tr>
```

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```
</tr>  
</table>
```

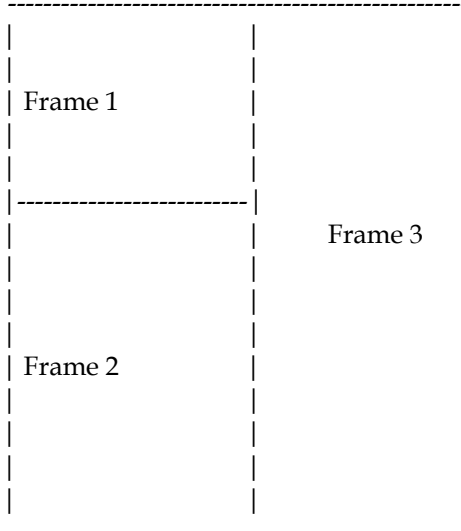
Q.11. what do you mean by inline frames? How do we insert inline frames? Explain

Ans.: HTML frames allow authors to present documents in multiple views, which may be independent windows or sub-windows. Multiple views offer designers a way to keep certain information visible, while other views are scrolled or replaced. For example, within the same window, one frame might display a static banner, a second a navigation menu, and a third the main document that can be scrolled through or replaced by navigating in the second frame.

Here is a simple frame document:

```
<!DOCTYPE HTML PUBLIC "-//W3C//DTD HTML 4.01 Frameset//EN"  
  "http://www.w3.org/TR/html4/frameset.dtd">  
<HTML>  
<HEAD>  
<TITLE>A simple frameset document</TITLE>  
</HEAD>  
<FRAMESET cols="20%, 80%">  
  <FRAMESET rows="100, 200">  
    <FRAME src="contents_of_frame1.html">  
    <FRAME src="contents_of_frame2.gif">  
  </FRAMESET>  
<FRAME src="contents_of_frame3.html">  
<NOFRAMES>  
  <P>This frameset document contains:  
  <UL>  
    <LI><A href="contents_of_frame1.html">Some neat contents</A>  
    <LI><IMG src="contents_of_frame2.gif" alt="A neat image">  
    <LI><A href="contents_of_frame3.html">Some other neat contents</A>  
  </UL>  
</NOFRAMES>  
</FRAMESET>  
</HTML>
```

that might create a frame layout something like this:



If the user browser can't display frames, it will execute the contents of the NOFRAMES element.

The IFRAME element allows authors to insert a frame within a block of text. Inserting an inline frame within a section of text is much like inserting an object via the OBJECT element: they both allow you to insert an HTML document in the middle of another; they may both be aligned with surrounding text, etc.

The information to be inserted inline is designated by the src attribute of this element. The *contents* of the IFRAME element, on the other hand, should only be displayed by user agents that do not support frames or are configured not to display frames.

For user browser that supports frames, the following example will place an inline frame surrounded by a border in the middle of the text. Inline frames may not be resized.

Ex-

```
<IFRAME src="foo.html" width="400" height="500" scrolling="auto" frameborder="1">  
Your user agent does not support frames or is currently configured  
not to display frames. However, you may visit  
<A href="foo.html">the related document.</A>]  
</IFRAME>
```


Q.12. Describe any four input types you can use in a form on the web page.

Ans.: An HTML form is a document containing text content, markup, special elements called controls (checkboxes, radio buttons, menus, etc.), and labels on those controls.

The control type defined by the INPUT element depends on the value of the type attribute:

text

To Create a single-line text input control:-

```
<input type="text" name="textbox1" value="" />
```

buttons

Authors may create three types of buttons:

- submit buttons, reset button and push buttons: Authors should specify the scripting language of a push button script through a default script declaration . Authors create buttons with the BUTTON element or the INPUT element.

checkboxes

Checkboxes are on/off switches that may be toggled by the user. A switch is "on" when the control element's checked attribute is set. When a form is submitted, only "on" checkbox controls can become successful.

Several checkboxes in a form may share the same control name. Thus, for example, checkboxes allow users to select several values for the same property. The INPUT element is used to create a checkbox control.

radio buttons

Radio buttons are like checkboxes except that when several share the same control name, they are mutually exclusive: when one is switched "on", all others with the same name are switched "off". The INPUT element is used to create a radio button control.

Q.13. what are the different methods using which data of a form can be submitted to the CGI script.

Ans.: There are two different methods :

1. GET
2. POST

Q.14. Explain the following in brief ?

- (i) Telnet (ii) FTP (iii) XML
(iv) ASP (v) Applets
(vi) HTTP

Ans.: Telnet :

TELNET (TERMINAL NETWORK) is a network protocol used on the Internet or local area networks to provide a bi-directional interactive text-oriented communications facility via a virtual terminal connection. Historically, telnet provided access to a command-line interface on a remote host. Most network equipment and operating systems with a TCP/IP stack support a Telnet service for remote configuration. The term *telnet* may also refer to the software that implements the client part of the protocol. Telnet client applications are available for virtually all computer platforms. *Telnet* means to establish a connection with the Telnet protocol, either with command line client or with a programmatic interface.

FTP:

File Transfer Protocol (FTP) is a standard network protocol used to copy a file from one host to another over a TCP/IP-based network, such as the Internet. FTP is built on a client-server architecture and utilizes separate control and data connections between the client and server applications which solves the problem of different end host configurations. FTP is used with user-based password authentication or with anonymous user access.

Applications were originally interactive command-line tools with standardized command syntax, but graphical user interfaces have been developed for all desktop operating systems in use today.

XML:

The **Extensible Markup Language (XML)** is a W3C recommendation for creating special-purpose *markup languages*. It is a simplified subset of *SGML*, capable of describing many different kinds of data. Its primary purpose is to facilitate the sharing of structured text and information across the *Internet*. XML (Extensible Markup Language) is a set of rules for encoding documents electronically. It is defined in the XML 1.0 Specification produced by the W3C, and several other related specifications. XML's design goals emphasize simplicity, generality, and usability over the Internet. It is a textual data format, with strong support via Unicode for the languages of the world. Although XML's design focuses on documents, it is widely used for the representation of arbitrary data structures in web services. There are many programming interfaces that software developers may use to access XML data, and several schema systems designed to aid in the definition of XML-based languages.

ASP:

An Active Server Page (ASP) is an *HTML* page that includes one or more *scripts* (small embedded programs) that are processed on a Microsoft Web *server* before the *page* is sent to the user. An ASP is somewhat similar to a *server-side include* or a common gateway interface (*CGI*) application in that all involve programs that run on the server. Typically, the script in the Web page at the server uses input received as the result of the user's request for the page to access data from a *database* and then builds or customizes the page before sending it to the requestor.

ASP is a feature of the Microsoft Internet Information Server (*IIS*), but, since the server-side script is just building a regular *HTML* page, it can be delivered to almost any *browser*. You can create an ASP file by including a script written in *VBScript* or *JScript* in an *HTML* file or by using ActiveX Data Objects (*ADOs*) program statements in the *HTML* file. You name the *HTML* file with the ".asp" file extension.

Active Server Pages (ASP), also known as *Classic ASP*, was Microsoft's first server-side script engine for dynamically-generated web pages. In ASP 2.0 there were six built-in objects: Application, ASP Error, Request, Response, Server, and Session. Session, for example, is a cookie-based session object that maintains the state of variables from page to page.

Most ASP pages are written in *VBScript*, but any other Active Scripting engine can be selected instead by using the @Language directive

Applets:

Some applets are able to function as any other normal software application, but are small in size and perform only a small set of tasks. Applets are not full-featured application programs. In some cases, an applet does not run independently. Such applets must run in a container, which is provided by a host program, through a [plug in](#), or a variety of other applications including mobile devices that support the applet programming model. Java programmers usually include applets by using the statement `import java.applet.Applet`

Examples of Web-based Applets include:

- QuickTime movies
- [Flash movies](#).
- Windows Media Player applets - used to display embedded video files in Internet Explorer (and other browsers that support the plugin).
- 3D-modelling display applets allowing a view of a model to be rotated and zoomed.
- Browser games can be applet-based, though some may develop into fully functional applications that require installation.

HTTP:

The Hypertext Transfer Protocol (HTTP) is an application-level protocol necessary for distributed, collaborative, hypermedia information systems. It is a generic, stateless, object-oriented protocol which can be used for many tasks, such as name servers and distributed object management systems, through extension of its request methods. A feature of HTTP is the typing of data representation, allowing systems to be built independently of the data being transferred.

HTTP allows an open-ended set of methods to be used to indicate the purpose of a request. It builds on the discipline of reference provided by the Uniform Resource Identifier (URI), as a location (URL) or name (URN), for indicating the resource on which a method is to be applied. Messages are passed in a format similar to that used by Internet Mail and the Multipurpose Internet Mail Extensions (MIME). HTTP is also used as a generic protocol for communication between user browser and proxies/gateways to other Internet protocols, such as SMTP, FTP, and Gopher etc.

The HTTP protocol is based on a request/response paradigm. A client establishes a connection with a server and sends a request to the server in the form of a request method, URI, and protocol version, followed by a MIME-like message containing request modifiers, client information, and possible body content. The server responds with a status line, including the message's protocol version and a success or error code, followed

by a MIME-like message containing server information, entity meta-information, and possible body content.

Q.15. List various picture formats suitable for a web page.

Ans.: Graphic images have helped make the Web an increasingly exciting place. Computer graphics are stored in many different file formats, which fall into two main types:

1. Vector images Consist of lines and various shapes, outlined and filled with colors or shadings.
2. Bitmap images Consist of colored dots, or *pixels*. Web documents commonly use only bitmap images, and in two principal formats: *GIF* (CompuServe's Graphics Interchange Format) and *JPEG* (Joint Photographic Experts Group); a third bitmap format, PNG (Portable Network Graphics) is also used.

Q.16. Explain the following in brief?

- (i) HTML style sheets
- (ii) Progressive display
- (iii) Anti-aliasing
- (iv) Applets
- (v) Image slicing

Ans.: **HTML style sheets**

Web browsers have always had a standard set of styles such as paragraphs are divided by <P> tags and for heading tags <H1> through <H6> tags are used.. *Styles* enable Web authors to set the styles used for these standard tags, and create new tags with new formatting. A *style* is a set of formatting commands that dictate how text is formatted. Instead of adding a series of separate commands to text, you apply one style that contains all the commands. In HTML , a style sets specific formatting characteristics for tags on your page..

HTML 4 supports many types of style sheets, including *cascading style sheets* (CSS), W3C's proposed way to format text on Web pages, which allows various levels of style sheets to work together. A particular Web page might contain more definitions of styles used only on that page.

Progressive Display:

On many Web pages, the images don't appear until after they have been completely downloaded, or they appear gradually from top to bottom. With

progressive display, the image starts blurry and gradually becomes more detailed over the entire image area as it is downloaded. A GIF file that the browser displays progressively is called an *interlaced* GIF image. A JPEG file that displays progressively is simply called *progressive* JPEG.

Anti-Aliasing

Anti-aliasing is a method of reducing the “jaggies,” a staircase-like effect also called *aliasing* that appears along slanted lines on computer images. Anti-aliasing works by creating color values that are intermediate between the object color and the background color, and then using those values to fill in the steps of the staircase.

The disadvantages of anti-aliasing are that file size increases and you get intermediate colors along the edges of your objects.

Applets(Applet as standalone application)

Some applets are able to function as any other normal software application (provided they are hosted by an operating system), but are small in size and perform only a small set of tasks. Examples of applications often classified as applets are all of the accessories bundled in Microsoft Windows (such as Windows Notepad or Microsoft Paint). Applets are not full-featured application programs.^[2]

Applet

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Image slicing

Many Web page designs let the visitor click graphics, instead of text, to navigate to various documents of the site. You can accomplish the incorporation of graphics as links by Slice the image into several pieces, arrange them seamlessly in a table, and then link them separately. In this method, you can give each piece of the image *alternate text* that appears if the image hasn't yet downloaded or the visitor has disabled browser graphics. This method also enables you to substitute a new piece of the image without requiring the visitor's browser to download an entire image. This method requires a graphics program that can *slice* an image into several parts and save each part as an image.

□ □ □

Send your requisition at
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