

SUBJECT NAME:- INTERNET AND ITS APPLICATIONS

SUBJECT CODE:- CCP 54

CLASS: III B .Com (CA)

UNIT: - II

- WEB BROWSERS
- INTERNET EXPLORER
- CONNECTING TO INTERNET
- TYPES OF INTERNET CONNECTION
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- SEARCHING THE INTERNET
- ONLINE HELP AND TUTORIALS
- FILE TRANSMISSION PROTOCOL(FTP)
- BROWSER SETTINGS

What is a Web Browser?

A Web browser contains the basic software you need in order to find, retrieve, view, and send information over the Internet.

This includes software that lets you:

- Send and receive electronic-mail (or e-mail) messages worldwide nearly instantaneously.
- Read messages from newsgroups (or forums) about thousands of topics in which users share information and opinions.
- Browse the World Wide Web (or Web) where you can find a rich variety of text, graphics, and interactive information. The most popular browsers are Microsoft Internet Explorer and Netscape Navigator. The appearance of a particular Web site may vary slightly depending on the browser you use. Exploring the Internet using Microsoft Internet Explorer Start Internet Explorer by double-clicking the icon on your desktop.

Toolbars The Microsoft Internet Explorer toolbar consists of buttons that are shortcuts for menu commands. They make browsing faster and easier.

1. **Back.** Lets you return to pages you've viewed, begin Back. ning with the most recent. Right-click the Back button and select from a list of recently visited sites.
2. **Forward.** Lets you move forward through pages you've Forward. viewed using the Back button. Right-click the Forward button and select from a list of recently visited sites.
3. **Stop.** Halts the process of downloading a Web page. Stop. Click this if you want to stop downloading a page for any reason for example, if you're having trouble downloading it or if you don't want to wait for it to download. Then try downloading it again or browse elsewhere.
4. **Refresh.** Updates any Web page stored in your disk c Refresh. ache with the latest content. When you return to a page that you've visited, your browser displays the file stored in your disk cache, rather than the current page on the World Wide Web. If a web page doesn't come up the whole way or is taking abnormally long to load, try the Refresh or Reload button - sometimes this will load the page better.
5. **Home.** Returns you to your home page. You can design Home. ate any Web page as your home page.
6. **Search.** Displays a choice of popular Internet searc Search. h engines in the left pane. Your search results appear in the left pane, too. When you click a link, the page appears in the right pane, so you don't lose sight of your search results.
7. **Favorites.** Displays a list of the sites you have ma Favorites. rked. Click any item in the list to jump to it.

8. History. Shows a list of Web sites you've visited.
9. Mail. Connects you to the Microsoft Outlook Express Mail. messaging and collaboration client so you can read e-mail and newsgroup messages.
10. Print. Prints the page you're viewing. This is one Print. way to save information from the Internet so that you don't have to reconnect to view it again. You can even print the URL associated with each hyperlink, making it easy to navigate to the site later.
11. Edit. Opens a file in the Microsoft Word word proce Edit. ssor that contains the HTML code for the page you're viewing so you can see and even edit it.
12. Discussion. Access a discussion server. Discussion.
13. Messenger. Opens Windows Messenger.
14. Media. Displays a list of audio and video media opt Media. ions using Real Player or the Windows Media Player.

What is a URL?

Every server on the Internet has an IP number, a unique number consisting of 4 parts separated by dots.

The IP number is the server's address. 165.113.245.2 128.143.22.55 However, it is harder for people to remember numbers than to remember word combinations.

So, addresses are given "word-based" addresses called URLs.

The URL and the IP number are one and the same.

The standard way to give the address of any resource on the Internet that is part of the World Wide Web (WWW).

A URL looks like this: `http://www.matisse.net/seminars.html` `telnet://well.sf.ca.us`
`gopher://gopher.ed.gov/` The URL is divided into sections: transfer/transport protocol :// server (or domain). generic top level domain/path/filename The first part of a URL defines the transport protocol.

`http://` (HyperText Transport Protocol) moves graphi `http://` cal, hypertext files `ftp://` (File Transfer Protocol) moves a file betwee `ftp://` n 2 computers `gopher://` (Gopher client) moves text-based files `gopher://` news: (News group reader) accesses a discussion gro news: up `telnet://` `telnet://` (Telnet client) allows remote login to another computer

- http is the protocol http
 - www.vrml.k12.la.us is the server www.vrml.k12.la.us
 - tltc/ is the path tltc/
 - main menu.html is the filename of the page on the sit main menu.html
1. You do not have to enter http:// http:// http:// , most browsers will add that information when you press Enter or click the button at the end of the Address Bar.

2. To view recently visited Web sites, click the down arrow at the end of the address field.

3. When you start typing a frequently used Web address in the Address bar, a list of similar addresses appears that you can choose from. And if a Web-page address is wrong, Internet Explorer can search for similar addresses to try to find a match.

4. The URL must be typed correctly. If you get a “Server Does Not Have A DNS Entry” message, this message tells you that your browser can't locate the server

(i.e. the computer that hosts the Web page). It could mean that the network is busy or that the server has been removed or taken down for maintenance. Check your spelling and try again later.

Explain internet Applications?

World Wide Web (WWW):

It is a subset of the Internet and it presents text, images, animation, video, sound, and other multimedia in a single interface. The operation of the Web relies primarily on hypertext, as it is a means of information retrieval.

Electronic Mail (E- Electronic Mail (E-Mail):

It is the process of exchanging messages electronically, via a communications network, using the computer.

File Transfer Protocol (FTP): It is a system of rul File Transfer Protocol (FTP): es and a software program that enables a user to log on to another computer and transfer information between it and his/her computer.

Telnet:

It connects one machine to another in such Telnet: a way that a person may interact with another machine as if it is being used locally. Internet Relay Chat (IRC): This service allows peop Internet Relay Chat (IRC): le to communicate in real time and carry on conversations via the computer with one or more people. It provides the user with the facility to engage in simultaneous (synchronous) online 'conversations' with other users from anywhere in the world.

Chatting and Instant Messaging:

Chat programs allow Chatting and Instant Messaging: users on the Internet to communicate with each other by typing in real time. Instant messaging allows a user on the Web to contact another user currently logged in and type a conversation.

Internet Telephony:

It refers to the use of the Int Internet Telephony: ernet rather than the traditional telephone company infrastructure, to exchange spoken or other telephonic information.

Video Conferencing:

It uses the same technology as Video Conferencing: IRC, but also provides sound and video pictures. It enables direct face-to-face communication across networks via web cameras, microphones, and other communication tools. Commerce through Internet: It refers to buying and Commerce through Internet: selling goods and services online. Newsgroups (Usenet):

Newsgroups (Usenet):

It is an international discuss Newsgroups (Usenet): ion group that focuses on a particular topic and helps in gathering information about that topic.

Mailing Lists (List server):

It refers to a large c Mailing Lists (List server): community of individuals who carry out active discussions, organized around topic-oriented forums that are distributed via e-mail and this method is known as mailing list.

SEARCH ENGINES SEARCH ENGINES

A search engine is a searchable database of Internet files which allows the user to enter keywords relating to particular topic and retrieve information about Internet sites containing those keywords.

Searching the Internet:

Some of the well-known search engines are www.google.com, www.hotbot.com, www.lycos.com, and www.altavista.com.

Refining the Search:

The major search engines allow the user to choose whether to search for the exact typed phrase, all the words in the phrase, any of the words in a phrase, and so on.

Before **connecting** to the **Internet**, you must determine the method you'd like to use. Are you going to be connecting to the Internet using a **modem** or a **broadband Internet connection**? Or do you want to use your smartphone to provide Internet service to your computer? Below is additional information about each of these types of connections and how to utilize them.

Connecting to the Internet with a modem

Connecting to the Internet using dial-up (e.g., a 56k **modem**) is still viable despite the growing use of broadband Internet connections. However, a dial-up connection is much slower. If you plan on doing more than the occasional **web surfing** or reading and sending **e-mail**, consider broadband.

Using dial-up to connect to the Internet requires your computer to have an internal or external modem and a home phone line (**landline**).

Connect to the Internet with broadband

Connecting to the Internet using **broadband** is much faster than a standard 56k modem. Having more bandwidth allows you to do more exciting things on the Internet, such as watch movies, listen to music, and play games, and better load times for websites.

Most broadband services are provided by a phone or cable company. Contact your local phone or cable service providers to see if broadband is available in your area.

If broadband service is available in your area, the company can provide you with the **hardware** (e.g., **cable modem**) required to connect to their service. This hardware usually connects to a **Network card** (**RJ-45** connector) on a computer using a **Cat 5** network cable. If your provider does not offer a wireless **router**, you can purchase a router to share your Internet connection with multiple computers and devices.

Linksys Wireless Router



ComputerHope.com

Connect to the Internet using a smartphone

You may also use your **smartphone** to connect to the Internet by **tethering**, a process that allows it to act as a **wireless access point**.

Apple iPhone



ComputerHope.com

Configuring your phone and computer for Internet service differs depending on your phone's operating system and manufacturer. Check online for specific instructions for the tethering software and smartphone you are using.

However, not all smartphones are capable of tethering, and not all cell phone [carriers](#) allow smartphones on their network to be used for tethering.

Type of internet connection

Before you pick your internet service provider, learn about the different internet connection types and which browsing habits they best serve. Based on your internet usage, you'll find that certain types of internet connections are better suited for the activities you enjoy.

Cable– Best for moderate users who enjoy web browsing, streaming movies and music, gaming and video chats. Largest providers include [Spectrum](#) and [Xfinity](#), despite widespread availability.

Dial-up– Best for occasional to light usage, such as budget-friendly users who enjoy casually browsing and checking email, social media and news updates. The largest provider is [AOL](#).

•**DSL**– Best for moderate users who enjoy streaming, browsing and gaming. Largest providers include [AT&T](#), [CenturyLink](#) and [Windstream](#).

Fiber-optic– Best for avid users who enjoy streaming, gaming, video chats and downloading large files on the [fastest speeds available](#). The largest provider is [Verizon Fios](#).

Fixed wireless– Best for moderate users who enjoy streaming, browsing and gaming. Largest providers include [AT&T Fixed Wireless](#) and [Rise Broadband](#).

•**Satellite**– Best for light to moderate internet users who enjoy streaming music and movies. Largest providers include [HughesNet](#) and [Viasat](#), formerly Exede.

Many internet connection types offer a range of internet speeds, so in some regions, shoppers can get similar speeds from a variety of providers. In other areas, one type of internet connection may be distinctly slower or faster than another type.

Features In Internet Explorer

Hardware-accelerated graphics mean better visuals. **Microsoft.** ...

- New **tabs** page for your favorite sites. ...
- New, unobtrusive notifications bar. ...
- The "One Box" displays websites, search results, and more. ...
- Pin your favorite sites to the **taskbar.** ...
- Keep
- Explorer now integrates with Windows 7. ...
- Better crash recovery.

SEARCH ENGINES SEARCH ENGINES

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Searching the Internet: Some of the well-known search engines are www.google.com, www.hotbot.com, www.lycos.com, and www.altavista.com. Refining the Search:

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How E-mail Works mail Works mail Works:

To send e-mail, one needs a connection to the Internet and access to a mail server, which forwards the mail. The standard protocol used for sending Internet e-mail is called SMTP (Simple Mail Transfer Protocol). It works in conjunction with POP (Post Office Protocol) and IMAP (Internet Mail Access Protocol) servers.

ELECTRONIC MAIL (E ELECTRONIC MAIL (E MAIL (E-MAIL)

Electronic mail or e-mail can be defined as the process of exchanging messages electronically, through a communications network, using the computer. It provides instant delivery of information and the ability to send file attachments by using the Internet. E-mail Address Structure: A typical e-mail address would look like: `username@website.com`

Login at Mail Server Checking E- Checking E-mails: One can read received e-mails by opening his/her e-mail account. Sending E- Sending E-mails: One of the important functions of an e-mail service is to provide a platform to send e-mails. A user can reply to the received e-mail or send a new email. E-mail Attachments: mail Attachments: mail Attachments: To send or receive files like compressed (.ZIP) files or any executable (.EXE) files you need to 'attach' them in your e-mails.

What are various types of Network explain? What are various type
Today, when talking about networks, we are generally referring to three primary categories:

Local Area Network (LAN):

LAN spans only a small geographical area such as an office, home, or building. In LAN one computer is designated as the file server, which stores all the software that controls the network and other computers connected are called workstations.

Metropolitan Area Network (MAN):

MAN is a network of computers spread over a metropolitan area such as city and its suburbs. Operated by one organization (a corporate with several offices in one city), or be shared resources used by several organizations in the same city.

Wide Area Network (WAN):

WAN is a system of interconnecting computers over a large geographical area such as cities, states, countries, or even the world. These

An online tutorial is a self study activity designed to teach a specific learning outcome. They are usually delivered via [Blackboard](#) but can also be made available via the Internet or on a DVD. There are two main types of online tutorial which we refer to as *Recorded* and *Interactive*.

Recorded tutorials are video or screencast recordings, typically of a subject expert presenting information and ideas or giving a demonstration. [Click here to see an example](#) of a screencast created using [Camtasia](#). The tutorial is designed to teach University of Bristol (UoB) members to how use the Library Catalogue to make a reservation. It consists of an audio narration over PowerPoint slides and a demonstration of the Catalogue software.

Interactive tutorials are a structured collection of navigable web pages. Individual pages can contain any combination of text, images, audio, video, self test questions and other interactive activities. Interactive tutorials can also contain screencasts. [Click here to see an example](#) of an interactive tutorial created using software [Wimba Create](#).

Both types of online tutorial can be provided as supplementary learning materials or as an integral part of a core activity, e.g. a prerequisite to attend a time tabled seminar. Because of the benefits they offer (see next section), online tutorials are becoming common place within both programmes of learning and on a number of support service web sites.

FTP

- FTP stands for File transfer protocol.
- FTP is a standard internet protocol provided by TCP/IP used for transmitting the files from one host to another.
- It is mainly used for transferring the web page files from their creator to the computer that acts as a server for other computers on the internet.
- It is also used for downloading the files to computer from other servers.

Objectives of FTP

- It provides the sharing of files.
- It is used to encourage the use of remote computers.
- It transfers the data more reliably and efficiently.

Why FTP?

Although transferring files from one system to another is very simple and straightforward, but sometimes it can cause problems. For example, two systems may have different file conventions. Two systems may have different ways to represent text and data. Two systems may have different directory structures. FTP protocol overcomes these problems by establishing two connections between hosts. One connection is used for data transfer, and another connection is used for the control connection.

Mechanism of FTP

The above figure shows the basic model of the FTP. The FTP client has three components: the user interface, control process, and data transfer process. The server has two components: the server control process and the server data transfer process.

Data Connection: The Data Connection uses very complex rules as data types may vary. The data connection is made between data transfer processes. The data connection opens when a command comes for transferring the files and closes when the file is transferred.

FTP Clients

- FTP client is a program that implements a file transfer protocol which allows you to transfer files between two hosts on the internet.
- It allows a user to connect to a remote host and upload or download the files.
- It has a set of commands that we can use to connect to a host, transfer the files between you and your host and close the connection.
- The FTP program is also available as a built-in component in a Web browser. This GUI based FTP client makes the file transfer very easy and also does not require to remember the FTP commands.

Advantages of FTP:

- Speed:** One of the biggest advantages of FTP is speed. The FTP is one of the fastest way to transfer the files from one computer to another computer.
- Efficient:** It is more efficient as we do not need to complete all the operations to get the entire file.
- Security:** To access the FTP server, we need to login with the username and password. Therefore, we can say that FTP is more secure.
- Back & forth movement:** FTP allows us to transfer the files back and forth. Suppose you are a manager of the company, you send some information to all the employees, and they all send information back on the same server.

Disadvantages of FTP:

- The standard requirement of the industry is that all the FTP transmissions should be encrypted. However, not all the FTP providers are equal and not all the providers offer encryption. So, we will have to look out for the FTP providers that provides encryption.
- FTP serves two operations, i.e., to send and receive large files on a network. However, the size limit of the file is 2GB that can be sent. It also doesn't allow you to run simultaneous transfers to multiple receivers.
- Passwords and file contents are sent in clear text that allows unwanted eavesdropping. So, it is quite possible that attackers can carry out the brute force attack by trying to guess the FTP password.
- It is not compatible with every system.

Enable Cookies: Tools > Internet Options > Privacy > Advanced > Check "Override Automatic Cookie Handling (accept 1st party; Prompt 3rd party)" and check the option to always accept session cookies. OK and OK back to browser.**Enable Javascript:** Tools > Internet Options > Security Tab > Internet > Custom Level > Scroll down to Scripting and enable "Active Scripting," "Allow Programmatic clipboard access," "Allow status bar updates via script," "Allow websites to prompt for information ...," and "Scripting of Java applets".

OK back browser.**Enable Status bar:** View > Toolbars > Check "Status Bar".**Get New Page Each Visit:** Tools > Internet Options > General Tab > in Browsing history section, click the Settings button > select "Every time I visit the webpage." OK and OK back to browser.**Pop-up Blocker Settings:** Tools Pop- > Pop-up Blocker Settings ... > Add ucmo.edu and ucmo.blackboard.com > Close back to browser.

Trusted Sites:Tools > Internet Options > Security > Trusted sites > Sites > Uncheck "Require server verification for all sites in this zone" Add ucmo.edu and blackboard.com > Close and OK back to browser.

Discussion Board Issues:Tools > Internet Options > Security Settings > Custom Level > scroll down to Miscellaneous and set "Launching programs and files in an IFRAME" to Prompt. OK and OK back to browser.**Mozilla Firefox (PC and Mac)**

E:*for Mac OS X browsers, access preferences via the Application Menu (ex. Firefox>Preferences).***Enable Cookies:** Tools > Options > Privacy > History pane: Use custom settings for history > Cookies > select "Accept cookies from sites" and "Accept third-party cookies." OK back to browser.**Enable Javascript:**Tools > Options > Content > check the "Enable Javascript" box. OK back to browser.**Get new page each visit:**Tools > Options > Privacy > History pane:

Use custom settings for history > select "Clear history when Firefox closes." Click Settings and select "Cache." OK and OK back to browser.**Popup Blocker Settings:**Tools > Options > Content > Click the "Exceptions" button next to Block Pop-up Windows > Add ucmo.edu and ucmo.blackboard.com > Click Allow and Close. OK back to browser.**Clear Browser Cache:**Tools > Clear Recent History > Select Cache. OK back to browser.**Google Chrome (PC and Mac)**

NOTE:*for Mac OS X browsers, access preferences via the Application Menu (ex. Chrome>Preferences).***Enable Cookies:** Settings > Show advanced settings > Privacy > Content Settings... > Cookies > check "Allow local data to be set.." OK and close Settings tab back to browser.**Enable Javascript:** Settings > Show advanced settings > Privacy > Content Settings... > Javascript > check "Allow sites to run Javascript". OK and close Settings tab back to browser.**Get new page each visit:** Settings > Show advanced settings > Privacy > Content Settings... > Cookies > Select "Keep local data only until I quit my browser" OK. Close Settings tab back to browser.

NOTE: *This will also clear your cookie each time the browser is closed. Unfortunately, Chrome doesn't have a mechanism to automatically clear only the cache. You could alternatively just routinely clear the browser cache (instructions provided below).*

Popup Blocker Settings:

Settings > Show advanced settings > Privacy > Content Settings... > Pop-ups > Click the "Manage exceptions" button > Add ucmo.edu and ucmo.blackboard.com > set behavior to "Allow." OK and close Settings tab back to browser.**Clear Browser Cache:** History > Clear browsing data: Select "the beginning of time" from the "Obliterate..." drop down, Select "Empty the cache" and click the Clear browsing data button. Close Settings tab back to browser.**Safari (Mac Only)****All Settings:** Safari Menu > Preferences > click Security icon > Check: Enable Plugins, Java, & Javascript. Clear checkbox on "Block Pop-up Windows."

