

1. Internet Basics

- o) Internet:- \Rightarrow It is example of WAN. \Rightarrow It is interconnected network. \Rightarrow It is interconnected of hundreds, thousands, millions of computers to share information with each other. \Rightarrow we can not touch and feel.
- o) WWW: Internet was a communication and research tool used for academic and military purposes. WWW (world wide web) in short well in 1989. WWW is a set of programs, and protocols in which multimedia files are created and displayed on the Internet. (Tim Berners-Lee).
- o) Difference between WWW and Internet.
 \Rightarrow A large part of Internet is www.
www is made up of web site and web page.
- o) Internet consists of:- Forums:- Seek help and advice about topic. Research database + universities and large companies. USENET:- (User's network) :- Discussion groups eg:- Google Groups. Email and IM (Instant Messaging).
- o) Internet Terminology:-
 - \Rightarrow Client:- Computer which requests services from other computer on the Internet.
 - \Rightarrow Server:- A computer that receives requests.
 - \Rightarrow webpage:- Any digital page on internet.
 - \Rightarrow website:- It is collection of web pages.
 - \Rightarrow web portal:- A web site which offers a array of resources.
 - \Rightarrow web browser:- A program or software on a client computer.
 - \Rightarrow web client:- It is a program that requests and uses
 - \Rightarrow URL:- Uniform Resource Locator
 - \Rightarrow Blog:- It is Journal or diary.

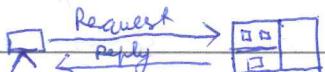
o) Blogger:- The person who writes blog.

o) Blogging :- action of writing blog.

o) Newsgroup:- Internet discussion forums.

~~o) Email :- electronic mail.~~

o) Email address:- It is unique address on a network.



*> web server:- It stores websites, document on the internet and responds to the requests made by web browsers / It is a programs or software that waits for request from the web browser. Eg:- Apache,

o) Difference between a server and a webserver.

⇒ Server:- It is a computer that manages network resources. It requests mainly related to resources on the network for sharing a resource like or sharing storage. for eg:- file server, mail server, webserver.

A computer that has server software loaded on it. Its job is to share resources for clients.

web server:- Computers that deliver web pages. It handle HTTP requests. For eg any URL.

*> Services provided by a server:

o) Resource sharing:-

o) Data sharing:-

o) Centralised virus scanning:-

o) Backups:-

CGI provides an interface between the HTTP server and WWW.

*> Services provided by webserver:-

o) Serving web pages:- It will deliver web pages using HTTP.

o) Running gateway programs and returning output. It runs special programs called CGI which help to fetch requests common gateway interface (CGI) from computer - generated largely.

- o) Controlling Access to the server :- It helps us to submit web form and also uploading of files.
- o) Monitoring and Logging all access :- It ensures that only authenticated access takes place.
- o) Server side Scripting :- Like PHP.

*>) Website :- It is a collection of web pages which are written using HTML. They are stored or hosted on computer that is connected to Internet.

*>) Components of a website :-

- o) Webhost :- Where a website are located.
 - o) It hosts websites for clients. It creates and maintains a site and makes it accessible on www.godaddy.com
 - o) Address :- It is the address of a website (URL)
 - o) Home page :- It is first page of a website.
 - o) Design :- Look and feel of the website
 - o) Content :- All webpage in the website together make up the content of the website.
 - o) The Navigation Structure :- A website is the order of the page which is linked to something. Organised and connected to other.

*>) Website vs Portal :

- Well Portal is a launch pad to load a webpage. E.g. - email, gaming
- ⇒ Well ^{site} page is a collection of web pages
- It is an entry point.
- ⇒ It is a final point.
- Linked to many website.
- ⇒ It is linked to its own webpage.

Web Pages:- It is a digital page or document which is linked to WWW and can be accessed by anyone having web browser.

* Components of webpage :- It is divided into two parts content wise and structure wise.

→ content wise :- Hypertext and hyperlinks.
 ↓
 within the computer network.

Hypertext :- Include information in the form of text image graphics video sound hyperlinks.

→ Structure wise :- Page title :- On the title bar of the browser displaying web page.

Header :- Top of the web page

Body of the web page :- Content of the web page

Navigational links :- It links from one web page to another.

Footer :- Bottom of web page.

* What makes a webpage work ?

→ Creation of webpage :- we make webpage using HTML.

→ Uploading / Publishing the webpage :- The webpage is loaded on the web server.

→ Retrieval :- It is displayed on the user's computer on a web browser.

* Process to view a web page :-

→ Type URL in the address bar of the web page.

→ URL on web browser determines the domain name and send request to web server hosting.

→ Web server sends the code of the asked web page to web browser in the client computer.

→ Web browser display the web page on the client computer.



- *> Difference between a webpage and website:-
-> Website is a combination of webpages together. website has a home page, register page, about us page etc -

- *> Web Browsers:- It is a program which helps us visit different sites on the net. Eg: Google, Safari. MSIE (Microsoft Internet Explorer). MOSAIC - Developed by NCSA [National Center for Supercomputing Application] was 1st web browser.

- > Graphical Browser:- It has text, image, audio and video when we browse.
- > Text Only Browser:- It is only text mode browser.

- *> Blogs:- It is a website. It is online journal entries are posted. It has been derived from Weblog.

- *> Types of Blogs:-
 - > Personal Blog:- Most common used. They keep posting about their interest.
 - > News and views:- It contains factual stories about news. It is maintained by journalists.
 - > Company blogs:- It helps customers and clients to know what is going on in the company.
 - > Micro-blogs:- It is very short post. Eg: Twitter. we can post 140 characters.

- *> Advantages and Disadvantages of Blog:-
 - > To write your thoughts on anything that interests you. #> Anyone can see your post. •> Easy to set up. #> Contains inaccurate information.
 - > Easy to update. #> Time consuming. •> People can comment.
 - #> People can leave dull comment. •> There are millions of blog.
 - #> They are many dull blogs.



*> **URL** :- A location on a net server is called uniform Resource locator). Eg :- <http://www.microsoft.com>
HTTP :- HyperText Transfer Protocol is a set of rule on Internet.

*> **Log of URL** :-

type:// address / path.

http:// encycle.msn.com/getinfo/style.asp

Type address of server

Path

) Type :- Type of server in which the file is located

) Address :- The address of the server

) Path :- Location of file on the server

*> **Elements of URL / Components / Syntax** :-

) Type or protocol → Name / address → location of the file.

Note:- **http** :- Identifies both the protocol and server. It has colon and two forward (//) slashes.

*> **Different Types Of Server** :- Info in Periodic.

) **ftp** :- File transfer Protocol → Text and binary file in hierarchical structure (family tree)

) **gopher** :- Transfer control protocol / Internet protocol (TCP/IP) Text and binary files that are organized in a menu structure

) **http** :- Hypertext Transfer Protocol Hypertext files

) **mail** :- POP (Post office Protocol) message sent via SMTP (Simple Mail Transfer Protocol) electronic mail.

) **news** :- NNTP (Network News Transfer Protocol) Newsgroups organized in a hierarchical structure.

Note:- Name of the server is also called Domain.

) **.com, .edu, .gov, .mil, .net, .org, .co, .tv**

*> we have country name also.



*> News group:- It is a forum like a community bulletin board. we can post, reply or read any message.

Note:- Groups of related message are called Threads. Eg: alt. tennis, alt. astrology. / It is also called clubs, message boards.

Note:- It is also called usenet.

*> Using a News group:-

o> Search a topic in news group.

o> It will display the result.

o> Click on join this ~~club~~ club link.

o> After becoming the members we can send post, reply, and post.

Note:- Any message can be read by clicking at its title. we can reply by clicking on reply button.

*> HTML:- what every we see on web is document written in a special language HTML. It tell browsers how to display text, picture and links on the screen. Tim Berners Lee in 1990.

> Hypertext:- It contains links to other text / digital asset.

> Markup:- Special symbols / instructions which tell the format style of a document.

> Markup language:- It is a set of standards to create a webpage.

*> Protocols:- It is a system of rules that defines how something is to be done.

*> HTTP (Hypertext Transfer Protocol):- It contains links to other text. It help us to access web page. It work with combination with www.



*> HTTPS :- (HyperText Transfer Protocol Secure) :- It ensures the security of the text/information being transferred over WWW.

Note:- Encryption :- It protect the text/information over internet.

-- SSL (Secure Sockets Layer) Certificate :- It helps to create a secure and encrypted connection between the servers and the browser.

⇒ Padlock sign. (Navigation bar or footer of your browser).

*> Difference between HTTP and HTTPS Protocols.

	HTTP	HTTPS
o) Transferring information over internet without any security.	o) Transferring information with SSL certificate.	
o) It is used to send non-sensitive information.	o) It is used to send sensitive information.	
o) It is used for blogs, entertainment.	o) It is used for banking details, payment, login.	
o) It does not require any technology for data exchange.	o) It requires SSL certificate to exchange data.	