

## 1. Internet and Web, website:

The Internet refers to the global network of computers that are connected and communicate with each other using a common set of protocols. The World Wide Web (Web) is a subset of the Internet and refers to the collection of interconnected web pages and websites that can be accessed using a web browser. A website is a collection of web pages that are hosted on a web server and can be accessed via the Internet using a web browser.

## 2. Similarity and differences between the Internet and the Web:

The Internet and the Web are both essential components of modern communication and information sharing. The Internet provides the underlying infrastructure for the transfer of data between computers, while the Web uses the Internet to deliver web pages and other web-based content. The main difference between the Internet and the Web is that the Internet is a network of computers, while the Web is a collection of interconnected web pages.

## 3. Function of HTTP:

HTTP (Hypertext Transfer Protocol) is the protocol used for transferring data over the Web. It is the foundation of data communication for the World Wide Web. HTTP specifies how clients (such as web browsers) and servers communicate with each other to request and transmit web resources, such as web pages, images, and videos.

## 4. Difference between GET and POST methods in HTTP:

The GET and POST methods are used to send data between a client (such as a web browser) and a server using HTTP. The main difference between GET and POST methods is in how they handle data. GET method sends data as part of the URL, while POST method sends data in the request body. GET method is suitable for sending small amounts of data, while POST method is suitable for sending large amounts of data.

## 5. Role of the following in the designing of a website:

- Domain Name Server (DNS): A DNS is responsible for translating domain names into IP addresses. This is necessary because computers use IP addresses to communicate with each other, while humans prefer to use domain names. DNS plays a crucial role in ensuring that users can access a website using its domain name.

- **Web Server:** A web server is responsible for delivering web pages to clients over the Internet. It stores the website's files and serves them to clients in response to requests.
- **Web Editor:** A web editor is a software application used to create and edit web pages. It allows developers to write code in HTML, CSS, and other web development languages.
- **FTP Client:** An FTP (File Transfer Protocol) client is used to transfer files between a local computer and a web server. It is commonly used by web developers to upload files to a web server.

## 6. Difference between HTML and XHTML:

HTML (Hypertext Markup Language) and XHTML (Extensible Hypertext Markup Language) are both markup languages used for creating web pages. The main difference between the two is that XHTML is a stricter, XML-based version of HTML. XHTML requires that all tags be properly nested and closed, while HTML is more forgiving. XHTML is recommended for modern web development because it is more compatible with modern web standards and technologies. However, both HTML and XHTML are still widely used for web development.