**Q1.) Define the terms: Website, Webpage, Web Browser, Web server, HTML, CSS.**

**Answer:-**

1. **Website**: - A website is a collection of publicly accessible, inter linked Web pages that share a single domain name. Websites can be created and maintained by an individual, group, business or organization to serve a variety of purposes.

It is also defined as a place connected to the internet, where a company, organization, etc. puts information that can be found on the World Wide Web.

Together, all publicly accessible websites constitute the World Wide Web.

Although it is sometimes called “web page”, this definition is wrong, since a website consists of several webpages. A website is also known as a “web presence” or simply “site”.

1. **Webpage**: - A simple definition of webpage is a single hypertext document available on the World Wide Web.

It is composed of HTML elements and displayed on the user’s browser such as Mozilla Firefox, Chrome, Microsoft Edge, Internet Explorer, Safari, etc.

It is also referred as a page.

A webpage is a document written in HTML and can be viewed on any web browser. It is contained within the web server, which can be accessed by entering the URL (Uniform Resource Locator) for that web page, and once it is loaded, it appears on the user’s web browser. Each webpage is linked with a unique URL; hence two pages cannot have the same URL.

A webpage may contain **text, links for other pages, graphics, videos, etc.** Moreover, it is mainly used to provide information to the user in text, images, etc.

A webpage is a part of a website; it means a website contains different web pages. It can be understood as an example of a book. So, a Website is like a book, and a webpage is like a page of that book.

1. **Web Browser**: - A web browser is a software program that is used to explore, retrieve and display the information available on the World Wide Web. This information may be in the form of pictures, web pages, videos and other files that all are connected via hyperlinks and categorized with the help of URLs.

A web browser is a client program as it runs on a user computer or mobile device and contacts the web server for the information requested by the user. The web server sends the data back to the browser that displays the results on the internet supported devices. On behalf of the users, the browser sends requests to web servers all over the internet by using HTTP (Hyper Text Transfer Protocol). A browser requires a smartphone, computer, tablet or laptop and internet to work.

1. **Web Server**: - A web server is dedicated computer responsible for running sitting out on those computers somewhere on the internet. They are specialized programs that circulate web pages as summoned by the user. The primary objective of the web server is to collect, process and provide web pages to the users.

A web server is dedicated software that runs on the server-side. When any user requests their web browser to run any web page, the web server places all the data materials together into an organized web page and forwards them back to the web browser with the help of the Internet.

This intercommunication of a web server with a web browser is done with the help of a protocol named HTTP. These stored web pages mostly use static content, containing HTML documents, images, style sheets, text files, etc. However, **Web Server can serve static as well as dynamic contents**. Web server also assists in emailing services and storing files. Therefore it also uses SMTP (Simple Mai Transfer Protocol) and FTP (File Transfer Protocol) protocols to support the respective services. Web servers are mainly used in web hosting or hosting the website’s data and running web-based applications.

The hardware of the servers are connected to the Internet that manages the data exchange facility within different connected devices. In contrast, the software of web browser is responsible for controlling how a user accesses delivered files. Typically, web server management is an ideal example of the client/server model. Therefore, **it is compulsory for all computers that host websites (whether with state or dynamic web page content) to have web server software**.

1. **HTML**: - HTML is an acronym which stands for Hyper Text Markup Language which is used for creating web pages and web applications.

**Hyper Text**: - Hyper Text simply means “Text within Text”. A text has a link within it, is a hypertext. Whenever you click on a link which you to a new webpage, you have clicked on a hypertext. Hypertext is a way to link two or more webpages with each other.

**Markup Language**: - A Markup language is a computer language that is used to apply layout and formatting conventions to a text document. Markup language makes text more interactive and dynamic. It can turn text into images, tables, links, etc.

Hence, HTML is a markup language which is used for creating attractive web page with the help of styling, and which looks in a nice format on a web browser. An HTML document is made of name HTML tags and each HTML tag contains different content.

1. **CSS**: - CSS stands for Cascading Style Sheets. It is a style sheet language which is used to describe the look and formatting of a document written in markup language. It provides an additional feature to HTML. It is generally used with HTML to change the style of web pages and user interfaces. It can also be used with any kind of XML documents including plain XML, SVG and XUL.

CSS is used along with HTML and JavaScript in most websites to create user interfaces for web applications and user interfaces for name mobile applications.

**What does CSS do**:-

=>You can add new looks to your old HTML documents.

=> You can completely change the look of your website with only a few changes in CSS code.

**Why use CSS**:-

1. **Solves a big problem**: - Before CSS, tags like font, color, background style, element alignments, border and size had to be repeated on every web pages. This was a very long process. For Example: If you are developing a large website where fonts and color information are added on every single page, it will be become a long and expensive process. CSS was created to solve this problem. It was a W3C recommendation.
2. **Saves a lot of time**: - CSS style definitions are saved in external CSS files so it is possible to change the entire website by changing just one file.
3. **Provide more attributes**: - CSS provides more detailed attributes than plain HTML to define the look and feel of the website.