i) State whether each of the following statements is true or false. If the statement is false, explain why.

a) Cascading Style Sheets 3 (CSS3) is used to specify the presentation, or styling, of elements on a web page (e.g., fonts, spacing, sizes, colors, positioning). – **TRUE**

b) Ensuring a consistent look and feel on client-side browsers is one of the great challenges of developing web-based applications. – **TRUE**

c) An HTTP request typically posts (or sends) data to a server for updating stored data on the server. – **TRUE**

d) Client-side scripts often can access the server's file-directory structure - **False, for security reasons the access of the server's file- directory is restricted.**

(ii) Fill in the blanks in each of the following statements:

a) **IPv6** is the next-generation Internet Protocol that features built-in security and a new addressing scheme, significantly expanding the number of addresses available.

b) HTML documents normally contain **hyperlinks** which, when clicked, load a specified web document.

c) A **URL** contains information that directs a browser to the resource that the user wishes to access; **web servers** make such resources available to web clients.

d) The two most common HTTP request types are **get** and **post**.

e) Web-based applications are multi tier applications. The **bottom tier** (also called the data tier or the information tier) maintains the application's data and typically stores data in a relational database management system. The **middle tier** implements business logic, controller logic and presentation logic to control interactions between the application's clients and its data. The **top tier**, or client tier, is the application's user interface, which gathers input and displays output.

f) **Android** , the fastest growing mobile and smartphone operating system, is based on the Linux kernel and Java.

iii) Describe the difference between client-side programming and server-side programming.

Client-side programming refers to the code that runs on the user's device (e.g. a web browser) and is responsible for creating the user interface, handling user interactions and making requests to the server. Examples of client-side programming languages include JavaScript, HTML, and CSS.
Server-side programming refers to the code that runs on a remote server and is responsible for handling requests from clients, performing back-end operations (such as database access), and sending responses back to the client. Examples of server-side programming languages include Java, Python, and PHP.
In short, client-side programming handles the front-end of a web application while server-side programming handles the back-end.