1. [10 marks]

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

is false, explain why. [2 marks]

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. Client-side scripts do not have access to the server’s file-directory structure. Server-side scripts do.**

(ii) Fill in the blanks in each of the following statements: [3 marks]

a) HTTPS 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 multitier 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. [5 marks]

Server-side programs are programs that are run on the server. This includes actions like accessing the database, accessing files on the server, and general computations. Client-side programs are programs that are run on the client’s browser. This includes action like making the website interactive, sending requests to the server, and other general computations.