**Question 1**

(i) a) True

b) True

c) False. An HTTP request retrieves data from a server.

d) True

(ii) 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 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) Server-side programming is code that is meant to be run only on the hidden (from the user), server computer. Server-side programming gives programmers more freedom and flexibility since the user cannot see this code. In contrast, client-side programming is the application of code on the client side (the user’s computer), and can be opened with a source viewer. As such, client-side scripting should not include passwords or other secret information. It is often used to validate forms before sending information to the server, to enhance web-pages, and to enhance the communication between browser and server.