

6(a)	One mark for each correct label • Protocol • Domain name • Web page name // file name												
6(b)	Any three from: • It examines each request/incoming transmission • It can slow down the rate at which/limits the number of requests sent to the server • It can use caching ... • ... to respond to the request (rather than forwarding it to the server) • It can stop any requests from a certain IP												
6(c)	One mark for each correct missing term or definition. <table border="1"> <thead> <tr> <th>Term</th><th>Description</th></tr> </thead> <tbody> <tr> <td>hypertext markup language (HTML)</td><td>It is the language that is often used to write/author web pages.</td></tr> <tr> <td>domain name server (DNS)</td><td>It is a system that stores URLs/domain names and their matching/corresponding IP addresses // It is a system that provides the matching IP address for a webpage to the web browser.</td></tr> <tr> <td>IP address</td><td>It is a numerical address used to locate the web server.</td></tr> <tr> <td>SSL/TLS/HTTPS</td><td>It is a secure protocol that can be used to transmit data sent to and from a web server.</td></tr> <tr> <td>web browser</td><td>It is a piece of software that is used to display web pages.</td></tr> </tbody> </table>	Term	Description	hypertext markup language (HTML)	It is the language that is often used to write/author web pages.	domain name server (DNS)	It is a system that stores URLs/domain names and their matching/corresponding IP addresses // It is a system that provides the matching IP address for a webpage to the web browser.	IP address	It is a numerical address used to locate the web server.	SSL/TLS/HTTPS	It is a secure protocol that can be used to transmit data sent to and from a web server.	web browser	It is a piece of software that is used to display web pages.
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6(d)	One mark for each correct missing term in the correct place. Cookies are stored and managed by the web browser. Session cookies are temporary files that are created when a user visits a web page. Persistent cookies are permanent files that are created when a user visits a web page.												

7(a)	A text-based address for a website/web page
7(b)	Any two from: • Protocol • Domain name • File name
7(c)	Web browser

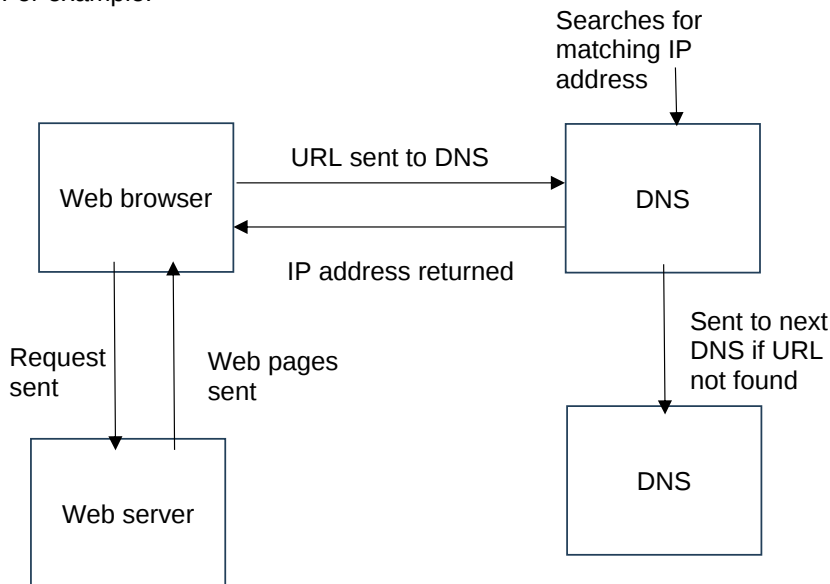
7(d)

One mark for each correct part of the diagram.

The diagram shows:

- **URL** sent from **web browser** to the **DNS**
- DNS finding **matching IP address**
- If it cannot find the URL, it is sent to the next DNS (until found)
- **IP address** returned to **web browser**
- **Request** sent from **web browser** to **web server** (for web page)
- Web page/HTML files sent from **web server** to **web browser**
- Web browser **rendering HTML**

For example:



7(e)

One mark for each correct term in the correct order:

- Web browser
- Web server
- Web server
- Web browser
- Encrypted

4

One mark for each correct term or description in the correct place.

Term

- World wide web // WWW
- IP (address)
- Domain name server // DNS
- Proxy server

Description

- (Web browser) **Software/application** that allows users to view/access web pages by rendering HTML
- (Hacking) Gaining **unauthorised** access to a computer/system

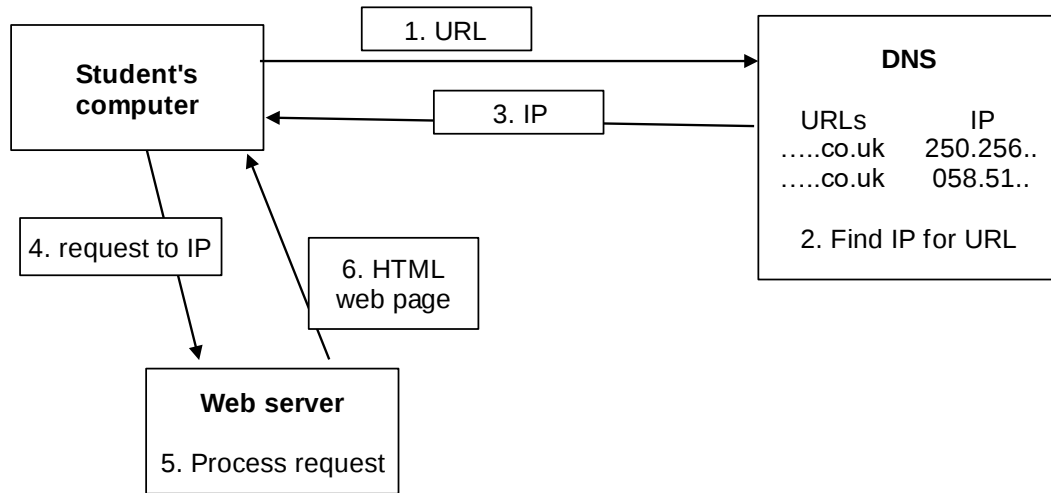
6(a)	One mark for each correct term in the correct order: • web browser • session • temporary • web browser // session • persistent • permanent • expire
6(b)	Any three from: For example: • User preferences // by example • Login details • Payment details • User's personal details e.g. address • Contents of a shopping cart • Targeted advertising

11(a)	Any two from: • The internet is the infrastructure • The world wide web is a collection of web pages
11(b)	Protocol Domain name File name // web page name
11(c)	Any three from: Example: • Displays a web page • Storing bookmarks/favourites • Recording user history • Allowing use of multiple tabs • Storing cookies • Providing navigation tools • Can set a home page

4

Any **five** marks for each part of diagram:

- **URL** from computer/browser to DNS
- DNS storing table/database of **URL** and **IPs** // DNS finding **IP** for **URL**
- DNS sending **IP** to computer / browser
- DNS sending to higher DNS if not found
- Web browser/computer sending request to **IP** of **web server**
- **Web server** processing request
- Web page data sent from **server** to computer / web browser



8(a)

- C

8(b)

Four marks from:Any **FOUR** from:

- It is denary based
- ... with numbers between 0 and 255
- It is 32 bits
- 4 sets/groups of numbers
- ... **separated** by dots

Any **TWO** from:

- It is a **unique** address
- It can be **static** or **dynamic**
- It can be **public** or **private**
- It contains the network prefix
- ... and the host number