5. The Internet and Its Uses

5.1 The internet and the world wide web

1 **(a)** Three statements about cookies are shown below.

Study each statement.

Tick (✓) to show whether the statement is true or false.

Statement	True	False
Cookies can destroy or modify data in a computer without the user's knowledge		
Cookies generate website pop-ups		
Cookies allow a website to detect whether a viewer has viewed specific web pages		

[3]

2 Six computer terms and six descriptions are shown below.

Draw a line to link each term to its appropriate description.

Term		Description
Browser		Signal sent to a processor which may cause a break in execution of the current routine, according to priorities
HTML		Company that provides individual's access to the Internet and other services such as web hosting and emails
Internet service provider		Software application used to locate, retrieve and display content on the World Wide Web e.g. web pages, videos and other files
Interrupt		Hardware identification number that uniquely identifies each device on a network; it is manufactured into every network card and cannot be altered
IP address		Authoring language used to create documents on the World Wide Web; uses tags and attributes
MAC address		Location of a given computer/device on a network; can be a static or dynamic value

[5]

3 (a) Explain what is meant by HTML.

....

....

....

....

....

.... [3]

(b) HTML uses both structure and presentation.

Describe what is meant by the two terms.

Structure ....

....

....

Presentation ....

....

....
[2]

(c) Explain the function of a web browser.

....

....

....

....

....

....[3]

4 (c) The student uses a web browser to access data on the internet.

Explain the purpose of the web browser.

....

....

....

.... [2]

(d) Storing cookies is one function of the web browser.

Give **three** other functions of the web browser.

1 ....

....

2 ....

....

3 ....

....
[3]

(e) A student visits a website that uses session cookies, instead of persistent cookies.

Explain the difference between session cookies and persistent cookies.

....

....

....

....

....

....

....

.... [4]

5 (a) Complete the statements about cookies.

Use the terms from the list.

Some of the terms in the list will **not** be used. Some terms may be used more than once.

compression   executable   hypertext markup language (HTML)

hypertext transfer protocol (HTTP)   image   internet protocol (IP) address

persistent   session   sound   text

uniform resource locater (URL)   web browser   web server

Cookies are small .... files that are sent between a

.... and a ....

.... cookies are stored in memory and **not** in the user's

secondary storage.

When the web browser is closed a .... cookie is lost,

whereas a .... cookie is **not** lost.

[6]

(b) Give **three** functions of a cookie.

1 ....

2 ....

3 ....

[3]

6 The table contains terms and descriptions about the internet.

Complete the table with the missing terms and descriptions.

Term	Description
....	the collective name for all the web pages available
....	a small text file, stored by the web browser, that can store a user's personal data
uniform resource locator (URL)	....
web server	....
....	the language used to create a website. Example tags are \<head\> and \<body\>
....	a protocol that is used to request and send web pages

[6]

7 An employee uses a web browser on their computer.

(a) Describe the main purpose of a web browser.

....

....

....

.... [2]

(b) The employee wants his payment details to be automatically filled in when he buys products using the internet.

Identify the function of a web browser that could be used for this purpose.

.... [1]

(c) The employee wants to be able to quickly access websites that he regularly uses.

Identify the function of a web browser that could be used for this purpose.

.... [1]

(d) The web browser uses the secure socket layer (SSL) protocol to transmit personal data securely over the internet.

State how the SSL protocol secures the data for transmission.

....

.... [1]

8 A company has a website. Users use the internet and the world wide web to access the website.

(a) Describe the difference between the internet and the world wide web.

....

....

....

.... [2]

(b) The website has a uniform resource locator (URL). The URL has three different parts.

Identify the **three** different parts that are included in the URL.

1 ....

2 ....

3 ....
[3]

(c) One function of a web browser is to provide an address bar for a user to enter a URL.

Give **three** other functions of a web browser.

1 ....

2 ....

3 ....
[3]

9 A student enters the uniform resource locator (URL) for a web page into their tablet computer.

(a) State what is meant by a URL.

....

.... [1]

(b) Identify **two** different parts of a URL.

1 ....

2 ....

[2]

(c) The student enters the URL into a piece of software that then displays the web page.

Identify the name of this software.

.... [1]

(d) Draw and annotate a diagram to show how the web page is located and retrieved to be displayed on the student's tablet computer.

[5]

(e) The data for the web page is transmitted using the secure socket layer (SSL) protocol.

Complete the paragraph about the SSL protocol.

Use only terms from the list.

Not all terms need to be used. Some terms may be used more than once.

encrypted	file server	hypertext markup language (HTML)

hypertext transfer protocol (HTTP)	operating system	search engine

unencrypted	URL	web browser	web server

The .... asks the ....

to identify itself. The .... sends back its digital

certificate. The .... authenticates the digital certificate.

If it is authentic, ... data transmission begins.

[5]

10 Complete the table to give the missing term or description for the internet terms.

Internet term	Description
....	the collection of web pages accessed using the internet
....	the address given to a device when it connects to the internet
web browser	....
....	the hardware that stores a database of matching website and IP addresses
....	a type of hardware that can be used to prevent a distributed denial of service (DDoS) attack
hacking	....

[6]

11 (a) Complete the statements about cookies.

Use only terms from the list.

Not all terms need to be used. Some terms may be used more than once.

binary   close   denary   expire

hexadecimal   image   malware   operating system

permanent   persistent   session   sound

temporary   web browser

Cookies are small text files that are stored by a ....

.... cookies are .... text files

that are deleted when the .... is closed.

.... cookies are .... text files

that are stored on a user's secondary storage device until they are manually deleted or they

....

[7]

(b) Give **three** examples of the use of cookies.

1 ....

....

2 ....

....

3 ....

....

[3]