

QUESTION 1.



4 Choose **six** correct terms from the following list to complete the spaces in the paragraph.

- encryption
- file name
- firewall
- HTML tags/text
- IP address
- protocol
- proxy server
- SSL certificate
- web server name

A user enters a URL. The web browser breaks up the URL into **three** components:

- 1
- 2
- 3

The web server returns the selected web page.

The web browser reads the from the selected page and shows the correctly formatted page on the user's screen.

A is used between the user's computer and the network to examine the data traffic to make sure it meets certain criteria.

To speed up the access to the web pages next time, a is used between the computer and web server; this device uses a cache to store the website home page after it has been accessed for the first time.

QUESTION 2.

2



1 (a) Four statements about cookies are shown in the table below.

Study each statement.

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

Statement	True	False
they are a form of spyware		
they are used only in advertising		
they are used to track browser use		
they act in the same way as a virus		

[4]

(b) Five descriptions and five security issues are shown below.

Draw a line to connect each description to the correct security issue.

Description

Security issue

malicious code installed on the hard drive of a user's computer or on the web server; this code will re-direct user to a fake web site without their consent

hacking

software that gathers information by monitoring key presses on a user's computer and relays the information back to the person who sent the software

pharming

program or code that replicates itself and is designed to amend, delete or copy data and files on a user's computer without their consent

phishing

the act of gaining illegal access to a computer system without the owner's consent

spyware

creator of code sends out a legitimate-looking email in the hope of gathering personal and financial data; it requires the recipient to follow a link in the email or open an attachment

virus

[4]

QUESTION 3.

2



1 Some software can be described as free, freeware or shareware.

Tick (✓) the appropriate boxes in the table below to show which features apply to the types of software.

Software feature	Free	Freeware	Shareware
Software source code can be freely accessed and modified as required			
All the features of the full version of the software are not made available; the full version needs to be purchased first			
The original software is subject to all copyright laws			
It is possible to distribute modified versions or copies of the software to friends and family			

[3]

2 Hexadecimal codes are used in MAC addresses.

(a) State what is meant by the term MAC.

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(b) Explain what the hexadecimal code in a MAC address represents.

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QUESTION 4.

5

4 The table shows **four** definitions.

Complete the table giving the missing **Term** for each definition.



Term	Definition
	A data transmission method that sends data one bit at a time, down a single wire
	An address given to a device on a network. The address is assigned by the network
	The software used to render HTML and display a web page
	An address given to a device at the manufacturing stage that can be used to identify the device on a network

[4]

QUESTION 5.

5



4 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]

QUESTION 6.



6 (a) Explain what is meant by HTML.

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..... [3]

(b) HTML uses both structure and presentation.

Describe what is meant by the two terms.

Structure

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Presentation

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..... [2]

(c) Explain the function of a web browser.

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QUESTION 7.



4 (a) Computer ethics involves a number of different topics.

(i) A student made the following statement on an examination paper:

“It allows a user to have the freedom to run, copy, change and adapt the software, then pass it on to a colleague, friend or family member.”

Identify which computer term the student was describing.

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(ii) Explain what is meant by computer ethics.

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..... [3]

(b) The four statements below refer to firewalls and proxy servers.

Study each statement.

Tick (✓) the appropriate column(s) to indicate whether the statement refers to a firewall and/or a proxy server.

Statement	Firewall	Proxy server
Speeds up access of information from a web server by using a cache		
Filters all Internet traffic coming into and out from a user’s computer, intranet or private network		
Helps to prevent malware, including viruses, from entering a user’s computer		
Keeps a list of undesirable websites and IP addresses		

[4]



(c) Explain **three** ways of preventing **accidental** loss or corruption of data.

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QUESTION 8.

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10 (a) Describe what is meant by HTML.

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.....[3]

(b) The following URL is typed in:

<http://www.cie.org.uk/ComputerSciencePapers>

This URL is composed of three parts.

State the part of this URL that is the:

File name

Protocol

Web server name

[3]

QUESTION 9.

10



8 Kamil correctly answers an examination question about a number of internet terms.

Six different terms have been removed from Kamil's answer.

Complete the sentences in Kamil's answer, using the list given. Not all terms in the list need to be used.

- browser
- connection
- domain name server (DNS)
- Internet
- Internet Service Provider (ISP)
- IP address
- MAC address
- network
- protocol
- uniform resource locator (URL)
- webpages
- hypertext mark-up language (HTML)

A is a program that allows a user to view

An is a company that provides a connection to access the

The main that governs the transmission of data using the Internet is http.

The is provided by the network, and given to each device on the network.

[6]

QUESTION 10.



7 Six internet terms and six definitions are listed.

Draw a line to connect each term to a correct definition.

Internet term	Definition
Browser	A program that allows a user to view webpages
Internet Service Provider (ISP)	The main protocol that governs the transmission of data using the Internet
Hyper Text Transfer Protocol (HTTP)	The website address that is typed into the address bar
Uniform Resource Locator (URL)	An address given to each device on a network. It is provided by the network
MAC address	A unique address given to a device on a network. It is provided by the manufacturer
IP address	A company that provides a connection to access the Internet

[5]

8 Describe the purpose of an interrupt in a computer system.

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[4]

QUESTION 11.

8



8 Alice enters a URL into a web browser to access a webpage.

(a) State what URL represents.

U R L

(b) Explain how the web browser uses the URL to access the webpage.

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.....[4]

9 Describe **two** differences between Read Only Memory (ROM) and Random Access Memory (RAM).

Difference 1.....
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Difference 2.....
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[4]

QUESTION 12.



6 Touch screen technologies can be described as resistive or capacitive.

Six statements are given about resistive and capacitive technology.

Tick (✓) to show if the statement applies to **Resistive** or **Capacitive** technology.

Statement	Resistive (✓)	Capacitive (✓)
This touch screen has multi-touch capabilities		
This touch screen cannot be used whilst wearing gloves		
This touch screen is made up of two layers with a small space in between		
This touch screen uses the electrical properties of the human body		
This touch screen is normally cheaper to manufacture		
This touch screen has a quicker response time		

[6]

7 Gerald uses a keyboard to enter a website address into the address bar of his browser.

(a) Describe how Gerald's key presses on his keyboard are processed by the computer.

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[4]



(b) State **three** functions of a browser.

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(c) The website Gerald visits uses https.

Explain what is meant by https.

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