

The internet and its uses – 2021 IGCSE 0478

1. Nov/2021/Paper_11/No.5

Tamaz stores confidential data on his computer.

He uses the Internet regularly and is concerned about his data being viewed by unauthorised people. He currently has **one** software method to stop his data being viewed, which is a password.

He wants to add other software methods to stop his data being viewed by unauthorised people.

(a) State **two** other software methods that Tamaz could use to stop his data being viewed by unauthorised people.

1

2

[2]

(b) Tamaz's computer has an operating system. **Two** functions of the operating system are file management and memory management.

State **two** other functions of the operating system.

1

2

[2]

2. Nov/2021/Paper_11/No.11

The table contains descriptions relating to web pages and the Internet.

Complete the table with the correct terms for the given descriptions.

Term	Description
	the language used to create a web page
	the type of software application used to display a web page
	an address given to a computer, by a network, to allow the computer to be uniquely identified
	a text file sent by a web server to collect data about a user's browsing habits
	the company that provides a connection to the Internet

[5]

3. Nov/2021/Paper_12/No.5a

Sammi works for a finance company and has a laptop that he uses for his work. He has confidential data about his customers stored on his laptop.

Sammi does **not** connect the laptop to any networks.

- (a) Sammi is concerned about his customers' confidential data being viewed by other people in his office.

One method he uses to prevent others viewing the data is encryption.

Identify **three** other methods Sammi could use to prevent his customers' confidential data being viewed.

- 1
- 2
- 3

[3]

4. Nov/2021/Paper_12/No.10

Jermain uses the Secure Socket Layer (SSL) protocol for secure transmission when sending data using the internet.

- (a) Explain how the SSL protocol secures the data for transmission.

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..... [2]

- (b) Identify an alternative protocol that could be used for secure transmission of data using the internet.

..... [1]

- (c) Give **two** ways that a user can identify if a website uses secure data transmission.

1

2

..... [2]

(a) A denial of service (DoS) attack is a type of Internet security risk.

State the purpose of a denial of service attack.

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..... [1]

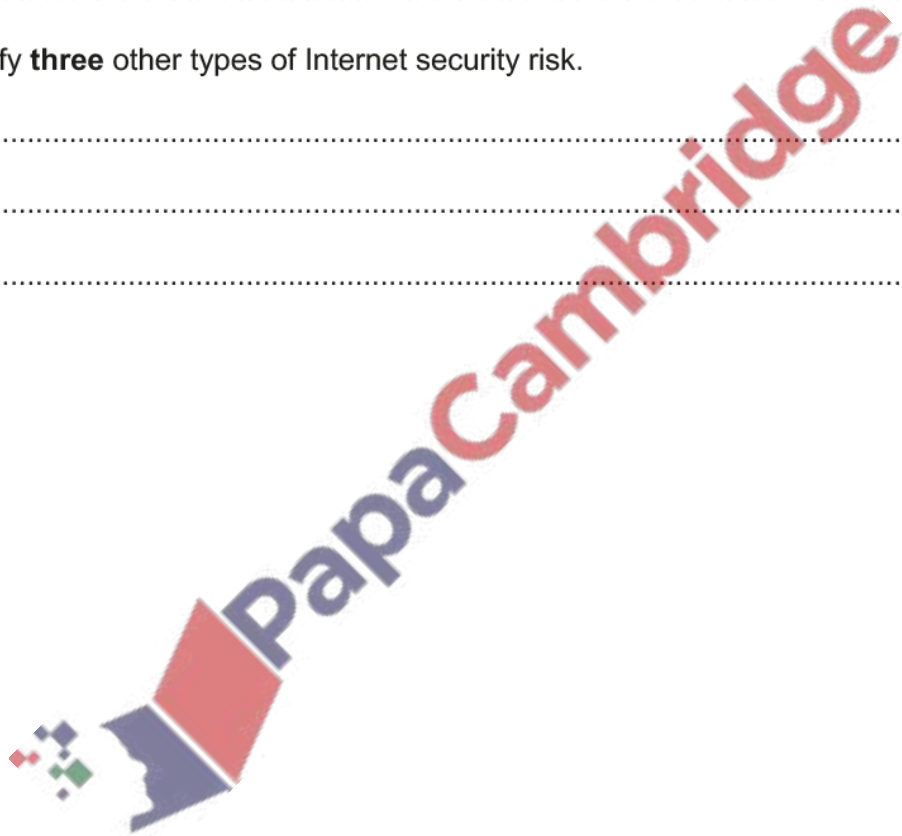
(b) Phishing and pharming are also types of Internet security risk. They have the same purpose.

State the purpose of phishing and pharming.

.....
..... [1]

(c) Identify **three** other types of Internet security risk.

1
2
3 [3]



Benedict has a computer that is assigned an Internet Protocol (IP) address. The IP address is:

198.167.214.0

The IP address is represented as denary values.

(a) Convert the denary values 167 and 214 from the IP address to 8-bit binary.

167							
-----	--	--	--	--	--	--	--

214							
-----	--	--	--	--	--	--	--

Working space

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.....

[2]

(b) Benedict's computer is also assigned a Media Access Control (MAC) address.

(i) Identify **one** similarity between an IP address and a MAC address.

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.....

[1]

(ii) Identify **two** differences between an IP address and a MAC address.

Difference 1

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.....

Difference 2

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.....

[2]

7. June/2021/Paper_13/No.4

Two internet risks are phishing and pharming.

Describe what is meant by phishing and pharming.

Phishing

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Pharming

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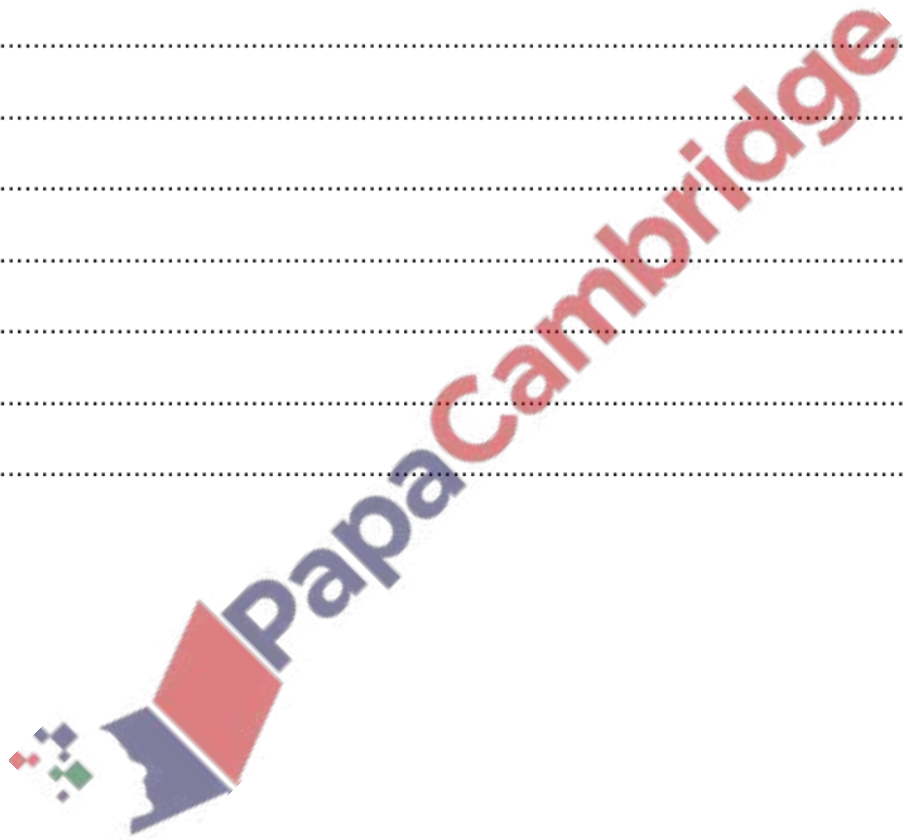
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[6]



(b) Describe how the web pages for the website are requested and displayed on a user's computer.

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[4]

(c) The web server that hosts the website suffers a denial of service (DoS) attack.
Explain why this will prevent users from accessing the website.

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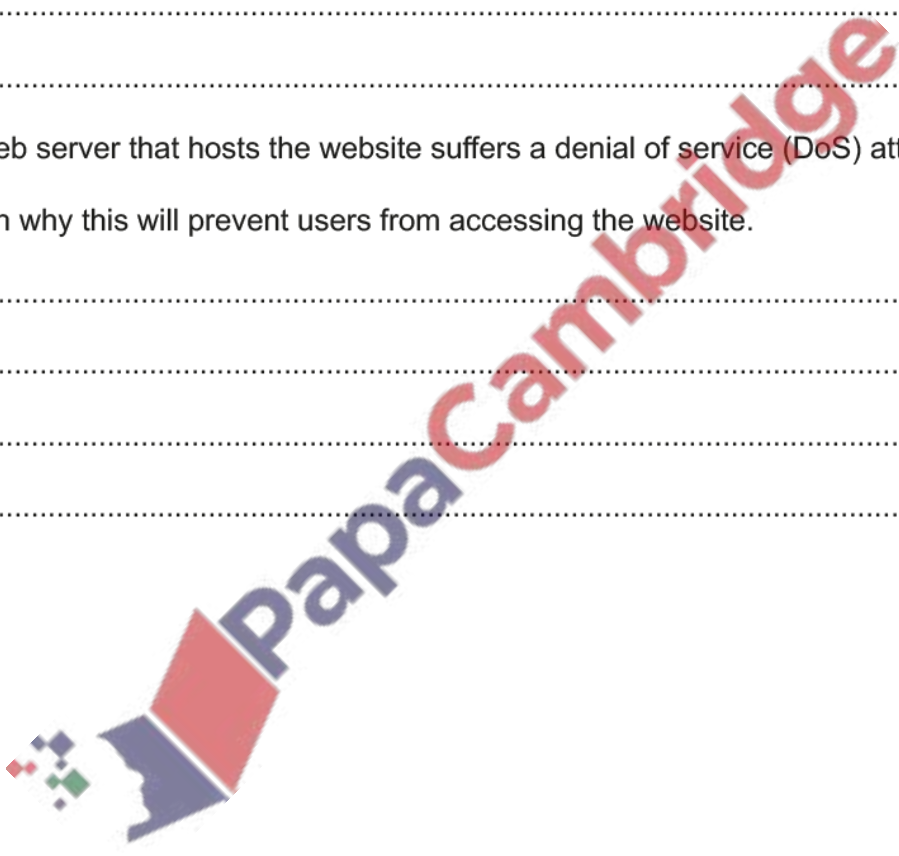
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[2]



Three types of Internet security risk are virus, spyware and denial of service (DoS) attack.

(a) Six statements are given about Internet security risks.

Tick (✓) to show whether the statement applies to virus, spyware or denial of service. Some statements may apply to more than one Internet security risk.

Statement	Virus (✓)	Spyware (✓)	Denial of service (✓)
captures all data entered using a keyboard			
can be installed onto a web server			
prevents access to a website			
is malicious code on a computer			
is self-replicating			
damages the files on a user's hard drive			

[6]

(b) Identify **three** other types of Internet security risks.

- 1
- 2
- 3

[3]

(c) Some Internet security risks can maliciously damage data. Data can also be damaged accidentally.

State **three** ways that data could be accidentally damaged.

- 1
- 2
- 3

[3]

Cookies can be used to store a user's personal data and online browsing habits.

- (a) A cookie could be used to automatically enter a user's payment details when the user makes a purchase online.

Describe how cookies can be used to store and automatically enter a user's payment details.

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..... [3]

- (b) Explain why a user may be concerned about their personal data and online browsing habits being stored in cookies.

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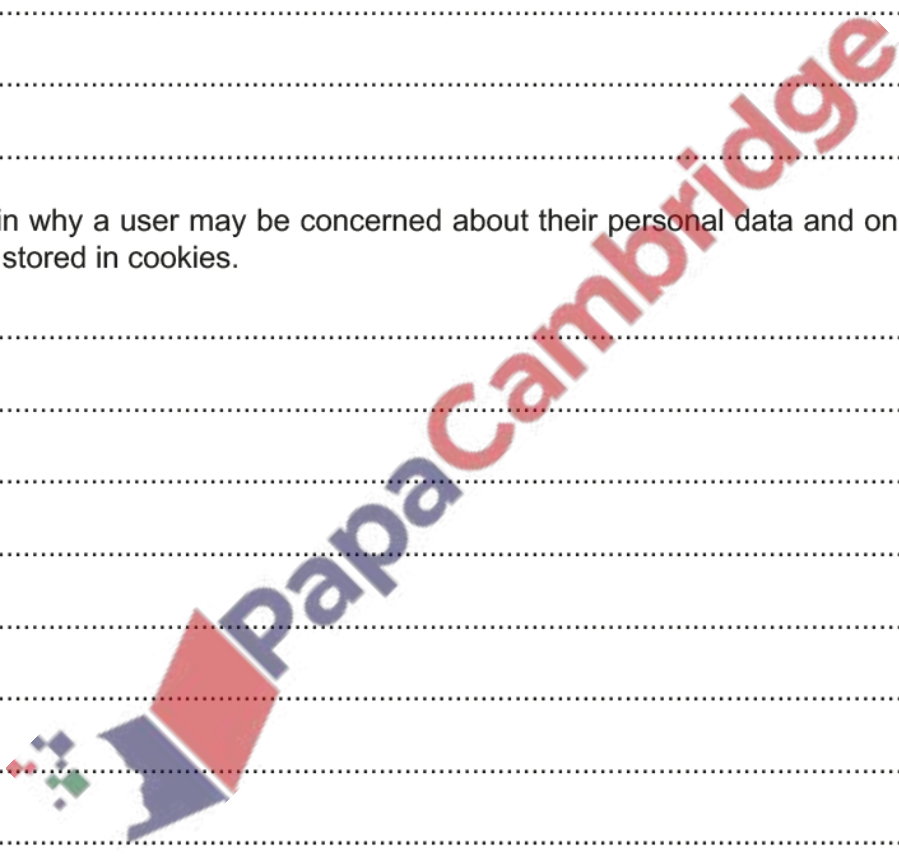
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..... [4]



Jolene uses HTML to create a website. She separates the HTML into structure and presentation.

(a) (i) Give **one** example of HTML structure.

..... [1]

(ii) Give **two** examples of HTML presentation.

1

2

[2]

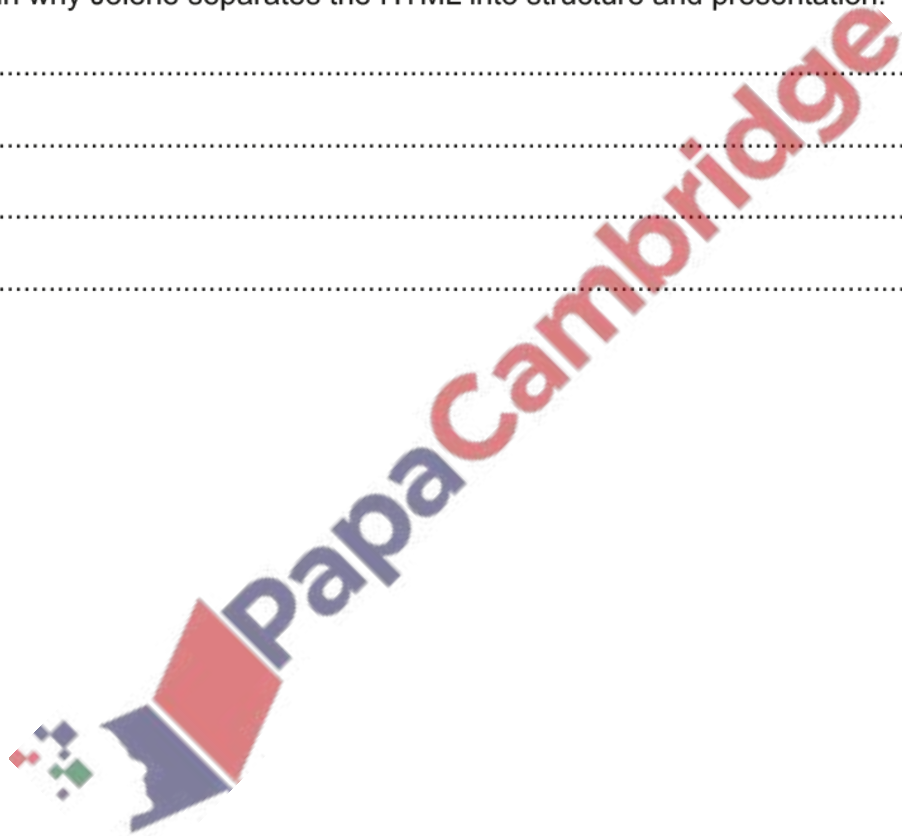
(b) Explain why Jolene separates the HTML into structure and presentation.

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..... [2]



Spencer finds out that his online music account has been accessed by an unauthorised person.

He believes his personal details for the account were obtained using phishing.

(a) Explain how the personal details could have been obtained using phishing.

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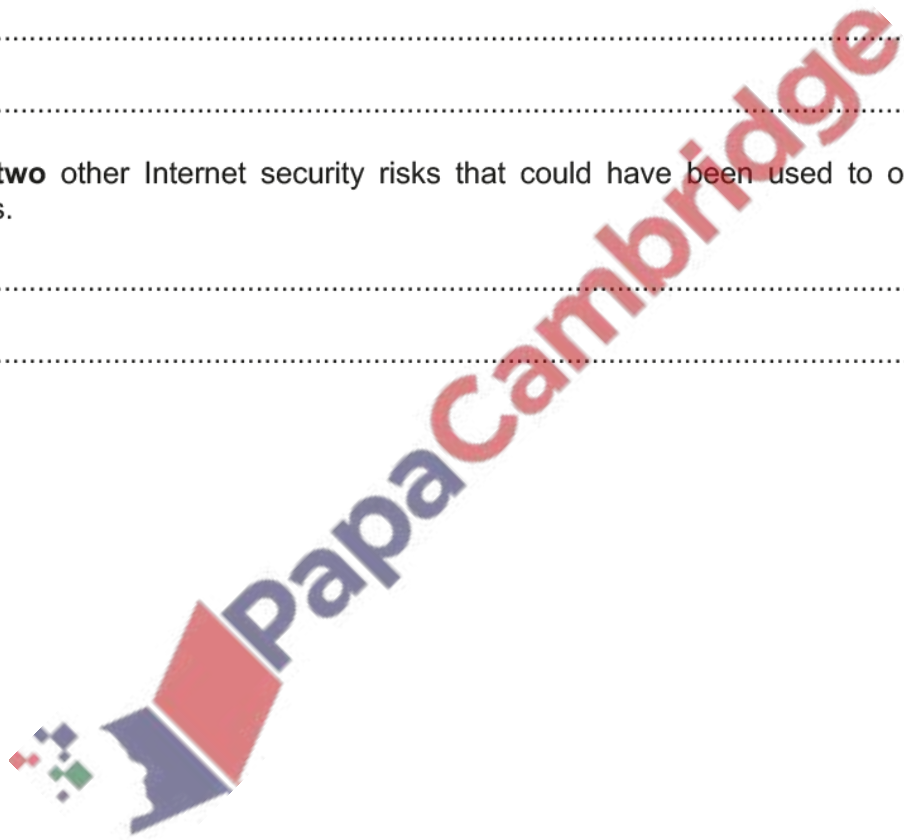
..... [3]

(b) Give **two** other Internet security risks that could have been used to obtain the personal details.

1

2

[2]



Marco uses his computer for work. The data he uses on a daily basis is valuable to his business.

Marco is concerned about his data being accidentally damaged. Human error, such as incorrectly removing external storage devices, is one way that the data can be accidentally damaged.

(a) Identify **two** other ways that data can be accidentally damaged.

1

2

[2]

(b) Removing storage devices correctly from the computer can help prevent data being accidentally damaged.

Give **two** other ways that accidental damage to data can be prevented.

1

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2

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[2]

