

The internet and its uses – 2021 O Level 2210

1. **Nov/2021//Paper_12/No.5**

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]

(b) Sammi creates videos for the finance company website that give customers advice about their finances.

He uses lossy compression to reduce the file size of the videos for the website.

(i) Give **three** ways that lossy compression can reduce the file size of the videos.

- 1
- 2
- 3 [3]

(ii) Give **one** drawback of using lossy compression to reduce the file size of the videos.

- [1]

(c) Sammi could have used lossless compression to compress the videos for the website.

(i) Give **one** reason why he would use lossless compression, rather than lossy compression, for the videos.

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..... [1]

(ii) Give **two** disadvantages of Sammi using lossless compression, rather than lossy compression, for the videos.

Disadvantage 1

Disadvantage 2

[2]

2. 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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(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.

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3. June/2021//Paper_11/No.3

A firewall can be used to help keep the data secure that is stored on a computer.

(a) The given paragraph describes how the firewall operates to help keep the data secure.

Complete the paragraph using the most appropriate terms from the given list. **Not** all of the terms on the list need to be used.

- Accept
- Criteria
- Hacking
- Input
- Network
- Outgoing
- Output
- Processor
- Reject
- Software
- Store
- Storage

A firewall can be or hardware based. It monitors traffic between the computer and the The user sets for the traffic. The firewall will or the traffic based on this. It can help prevent and malicious software that could be a threat to the security of the data.

[6]

(b) Identify **three** other methods that could be used to keep the data secure.

Method 1

Method 2

Method 3

[3]

4. June/2021//Paper_11/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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[6]

5. June/2021//Paper_11/No.7b,c

A music company has a website that allows users to stream music. The music is stored in sound files.

(a) The sound files are compressed using lossless compression.

(i) Describe how the sound files are compressed using lossless compression.

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(ii) State **one** reason why the music company would compress the sound files using lossless, rather than lossy, compression.

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..... [1]

(iii) Give **one** benefit, to the user, of the music company compressing the sound files.

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..... [1]

(iv) Give **one** drawback of the music company using lossless, rather than lossy, compression for the sound files.

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..... [2]

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

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(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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6. June/2021//Paper_12/No.4

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]

7. June/2021//Paper_12/No.6

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

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8. June/2021//Paper_12/No.7

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

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

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

1

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[2]

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

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