0 1   AQATravel is a tour operator that sells holidays to places all around the world. They hold all of their customer and business data electronically. Following recent news articles about the effects of malware attacks on businesses, the management of AQATravel have been investigating how they could protect themselves against malware attacks.

Discuss four methods that AQATravel could use to prevent infections from malware and/or to minimise the damage that could be caused by malware.

[12 marks]

0 2 . 2 A company has decided to move its business online but it is concerned about making sure that only authorised users can gain access to the system. The company has set up a CAPTCHA system to check that the user is not a robot.

Explain **three** different electronic methods that could then be used to confirm user identity.

[6 marks]

0 3 . 5 Phishing is a form of social engineering.

Describe **two** methods a school could use to protect its staff and students from phishing.

[4 marks]

1 _____

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_____

_____

2 _____

_____

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Turn over for the next question

0 4 . 1 State **two** issues with only using usernames and passwords in an authentication system.

[2 marks]

1 _____

_____

2 _____

_____

0 4 . 2 Describe **one** security measure that could be used, in addition to a password, to make sure that a user is who they are claiming to be.

[2 marks]

_____

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0 4 . 3 State **two** reasons why automatic software updates provide better security than manual software updates.

[2 marks]

1 _____

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2 _____

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0 5 . 3 The network manager of a new computer games company, AQAware, is configuring the network. They are concerned about potential cyber security threats that could affect the company's systems.

Discuss the potential impact of the following threats on AQAware:
- weak and default passwords
- misconfigured access rights
- unpatched and/or outdated software.

In your response you should include:
- how these threats could be exploited by an attacker
- how AQAware could protect themselves against these threats.

[9 marks]

0 6 The games café is evaluating the security for their network.

0 6 . **1** State **two** reasons why using a biometric authentication measure is better than password authentication for staff accounts.

[2 marks]

0 6 . 2   Explain why it would not be appropriate for the café to use MAC address filtering on
their wireless network.

[2 marks]

0 7 . 2 A website wants to improve its cyber security procedures.

Explain how **CAPTCHA** and **email confirmations** could improve the security of the website.

[4 marks]

CAPTCHA _____

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_____

_____

_____

Email confirmations _____

_____

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