

## End of topic quiz

FIRST ASSESSMENT  
SUMMER 2022

## Topic 1.4 Network security

1.

a. Which **two** boxes are malware?

	Tick (✓)
Sandboxing	
Rootkit	
NAT router	
Key logger	

b. What are **two** methods that could be used to infect a laptop with malware?c. What are **two** types of anti-malware that should be used to protect a laptop?

**2.**

- a. How could phishing take place at a business?

- b. What are **two** potential problems to a business if phishing takes place?

- c. Describe **one** other example of social engineering that employees at a business should be aware of.

**3.**

- a. What is meant by the term 'brute-force attack'?

- b. What are **four** features of a strong password?

- c. What are **two** measures in addition to a password that could be used to keep a computer's data secure?

4.

- a. What are **three** reasons why companies may be targeted by a denial of service attack?

- b. What are **two** measures that a company could take to prepare for a denial of service attack?

5. It is important that all users of a computer network realise what they can and cannot access on the network. The **table** below lists some actions that a student, a tutor and a network manager have authority to perform on a school network.

Which action(s) should a student, a tutor and, or a network manager be able to perform?

Action	Student	Tutor	Network manager
Change system settings			
Access a shared area for students			
Add or delete network users			
Access the student's file and make changes to it			
Access a shared area for tutors			
Install software			

# COMPUTER SCIENCE

6. Josh works in the finance department of a council. He has been asked by his manager to email an important document containing personal and financial information to Saida. Saida works at a firm of accountants located in another part of the country.

- a. What is **one** method that a business could use to ensure that sensitive documents will not be read by anyone except the intended recipient?

- b. What is the plain text for this cipher when a Caesar cipher is used?

**XLI HEXE MW WIGYVI**

- c. The **table** below lists three statements. Which statements are **True** and **False**?

Statement	True	False
The Caesar cipher is an example of a substitution cipher.		
A private key can be made available to everyone.		
Advanced Encryption Standard uses 128-bit, 192-bit or 256-bit keys.		

7.

- a. What are **four** reasons why an attacker might want to target an organisation's database with an SQL injection?

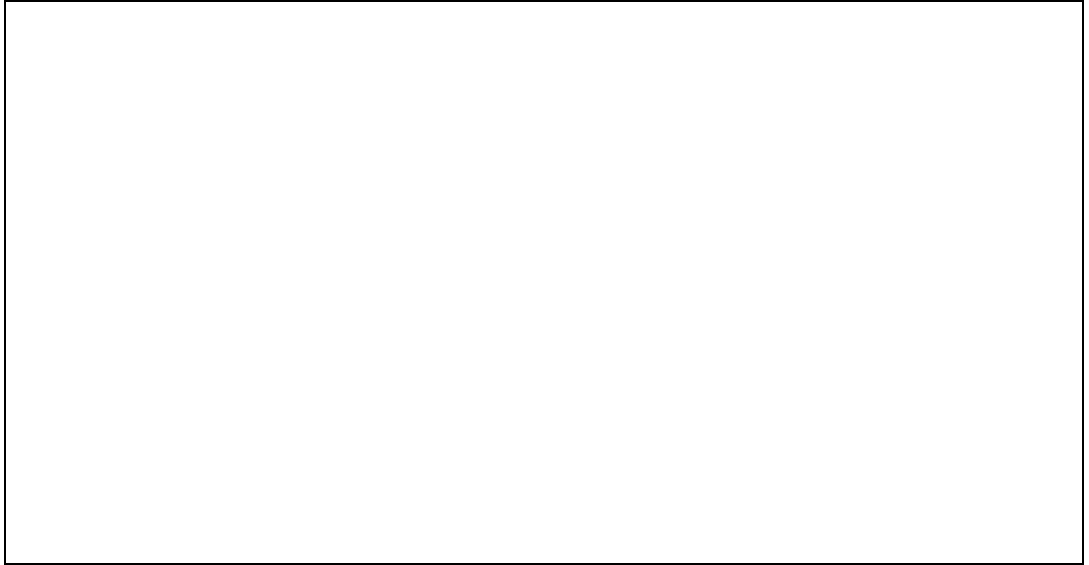
- b. What are **two** measures that an organisation should take to guard their software applications from an SQL injection attack?

8.

- a. What are **two** advantages of using a firewall?

- b. Give a comparison of intrusion detection and vulnerability testing.

- c. How penetration testing helps secure the telecommunication company's computer network.



9. What are **four** ways of physically protecting a network?



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