

OCR Computer Science GCSE

1.4 - Network security

Flashcards

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What is malware?



What is malware?

An umbrella term used to refer to a variety of forms of hostile or intrusive software.



Name three forms of
malware.



Name three forms of malware.

Computer viruses, trojans and spyware.



What is a computer virus?



What is a computer virus?

A type of malware that attaches itself to a legitimate program or file and spreads across a network when the infected file is opened.



What is a trojan?



What is a trojan?

A malicious program that disguises itself as legitimate software.



What is spyware?



What is spyware?

A type of malware that secretly gathers information about a user's activity, such as keystrokes, and sends this information to the attacker.



What is social engineering?



What is social engineering?

An umbrella term used for a range of techniques that are used to manipulate people into giving away confidential information.



What is phishing?



What is phishing?

Sending victims a communication that looks genuine, containing a link to fraudulently obtain their personal information.



How are brute-force attacks normally conducted?



How are brute-force attacks normally conducted?

Using automated software that quickly tests thousands of possible combinations of usernames and passwords.



What is the purpose of brute-force attacks?



What is the purpose of brute-force attacks?

To break into user accounts or systems by guessing login credentials



How are denial of service attacks normally conducted?



How are denial of service attacks normally conducted?

By sending a massive number of requests to a server in a short space of time.



What is the purpose of denial of service attacks?



What is the purpose of denial of service attacks?

To overwhelm a website or online service with excessive traffic, making it slow or completely inaccessible to real users.



Which type of networks are particularly vulnerable to data interception and theft?



Which type of networks are particularly vulnerable to data interception and theft?

Unsecured networks.



How does SQL injection work?



How does SQL injection work?

SQL code is entered into a website's input fields. If the website does not properly check the input, the malicious code is run by the database.



What is penetration testing?



What is penetration testing?

Simulated attacks used to find vulnerabilities in a system before real attackers do.



What does penetration testing prevent?



What does penetration testing prevent?

It can help prevent SQL injection, brute-force attacks, and data interception by identifying weaknesses that can then be fixed.



What is anti-malware software?



What is anti-malware software?

Software that scans for, detects, and removes malware by comparing files to a known database.



What does anti-malware software prevent?



What does anti-malware software prevent?

It helps prevent malware infections such as viruses, trojans, spyware, and ransomware.



What is a firewall?



What is a firewall?

A firewall monitors incoming and outgoing traffic and blocks data that doesn't meet security rules.



What does a firewall prevent?



What does a firewall prevent?

It can block denial of service attacks and malware from the internet.



What are user access levels?



What are user access levels?

Restrictions on what each user can view or change in a system, based on their role.



What do user access levels prevent?



What do user access levels prevent?

They help prevent misuse of data, insider threats, and damage from low-level compromised accounts.



What is the purpose of a password?



What is the purpose of a password?

Passwords protect accounts by making it harder for attackers to log in without authorisation.



What do secure passwords help prevent?



What do secure passwords help prevent?

They limit brute-force attacks and unauthorised access.



What is encryption?



What is encryption?

A process that turns data into unreadable code unless decrypted with the correct key.



What does encryption prevent?



What does encryption prevent?

It protects against data interception and theft during transmission or if devices are stolen.



Name two physical security measures.



Name two physical security measures.

- Locks on doors
- CCTV



What does physical security prevent?



What does physical security prevent?

Theft, hardware tampering, and unauthorised physical access.

