Networks & the Internet - Answers

Answer Key

Section A: Network Reasoning

1. Data is broken into small packets, each labelled with its destination, and these packets travel independently across the network before being reassembled at the destination
2. Because the request and data have further to travel, adding delay compared to a server located much closer
3. The internet is the physical global network of connected computers and cables; the World Wide Web is the system of websites and pages accessible via that network
4. To keep sensitive company or organisational data more secure and separate from the wider public internet
5. Because internet traffic often relies on shared cables and infrastructure, so damage to a major connection can disrupt traffic for many users relying on that same route

Section B: Security Reasoning

1. Because "https" means the connection is encrypted, making it much harder for anyone to intercept and read the data being sent
2. Because a VPN encrypts their connection, protecting company data from being intercepted on unsecured networks like public Wi-Fi
3. A weak, easily guessed password can be cracked by automated tools, letting someone log in without permission
4. Because a data breach could expose users' personal information, potentially leading to identity theft or financial harm
5. Because understanding the risks (like weak passwords or unencrypted connections) helps you make more informed, careful decisions online