

INFORMATION ASSURANCE AND SECURITY 1

Activity 1 (25 pts)

1. Explain why Information Security is Important to us?

Answer: Data security is important because it protects our personal information such as passwords, bank details, and personal files from being stolen or misused. It also helps ensure that critical systems, such as those used in hospitals or businesses, can continue to work without interruption. If there is no security system, hackers can harm people by stealing their identities or causing financial losses.

2. Search for some measure to prevent security threats?

Answer:

To avoid security threats we can do the following.

1. Use a strong password and change your password regularly.
2. Install anti-virus and anti-malware software.
3. Enable two-factor authentication on your account.
4. Update software and systems to fix some security vulnerabilities.
5. Avoid clicking on unknown links or downloading files from suspicious emails.

3. Choose three types of threats and explain?

Answer:

1. Phishing occurs when hackers pretend to be a trusted organization through fake email messages, and tricking others into sharing sensitive information, such as passwords or credit card details. Through secret email messages masquerading as a trusted organization...
2. Ransomware is malicious software that locks or encrypts files on a victim's device. And attackers demand payment to unlock or restore access to data.
3. A denial of service (DoS) attack overwhelms a server or network with too much traffic. As a result, the system crashes and becomes unusable for legitimate users.

4. Search on the internet an article about a company that encountered an attack and explain what happened to that company and how they resolved that security issue?

Answer: In 2021, Colonial Pipeline Company, which manages large oil pipelines in the United States, Attacked by ransomware Hackers lock freelancers and demanded money to restore access. As a result, there is a shortage of fuel in some areas. The company paid the hackers \$4.4 million, but they worked with the FBI to recoup some of the money and improve security.

5. As a student, how do you protect your data and secure your devices against possible threats?

Answer: As a student I protect my information and personal information online by using strong passwords. Enable two-factor authentication. Update my software and avoid any suspicious links and also secure my Wi-Fi to prevent any attack on my computer and lastly use reliable antivirus software to protect my privacy anywhere.