Network Security Model Questions - Answers

1. What is Network Security? Explain eight reasons why Network Security is Important?

Network security involves the policies, processes, and practices adopted to prevent, detect, and mon

Eight Reasons Why Network Security is Important:
1. Data Protection: Safeguards sensitive information from breaches.
2. Regulatory Compliance: Ensures compliance with regulations such as GDPR, HIPAA.
3. Customer Trust: Maintains the trust of customers by protecting their data.
4. Preventing Data Loss: Protects against data loss due to attacks or accidents.
5. Business Continuity: Ensures continuous operation of business services.
6. Cost Savings: Reduces costs associated with security breaches and data loss.
7. Protection Against Cyber Attacks: Shields against various types of cyber attacks.
8. Competitive Advantage: Enhances reputation and competitive edge.

2. What is the goal of Network Security? Explain the several measures that organizations can ta

The goal of network security is to protect the network and its data from breaches, intrusions, and oth

Measures to Ensure Network Security:
1. Firewalls: Control incoming and outgoing network traffic.
2. Intrusion Detection Systems (IDS): Monitor network for suspicious activity.
3. Encryption: Encrypt data to protect it during transmission.
4. Access Control: Restrict access to network resources.
5. Antivirus Software: Protect against malware.
6. Regular Updates and Patch Management: Keep systems up-to-date.
7. Security Training: Educate employees on security best practices.
8. Network Segmentation: Divide the network into segments to control access.

3. Define access control. Explain the case of loss of integrity, loss of availability, loss of confide

Access control is a security technique that regulates who or what can view or use resources in a com

Examples:
- Loss of Integrity: Unauthorized modification of data, such as altering financial records.
- Loss of Availability: Network downtime due to a DDoS attack, preventing access to resources.
- Loss of Confidentiality: Data breach exposing sensitive information like social security numbers.