

1. What is NAT?

A router that allows multiple device to use single unique public IP address.

2. NAT implementation?

- Designed for IP address conservation
- Operates on a router usually connecting two networks together.
- Translates the private addresses in the internal network into legal addresses, before packets are forwarded to another network.

3. What is MSG integrity?

Message integrity means that a message has not been tampered with or altered.

The most common approach is to use a hash function.

4. What do you mean by Confidentiality?

Two or more hosts communicate securely, typically using encryption

Only the people who are authorized to do so can gain access to sensitive data.

5. Describe 1 attack?

☐ Network Attack:- A network attack is an attempt to gain unauthorized access to an organizations network, with the objective of stealing data or perform other malicious activity.

☐ Active Attack:- Attempts to alter system resources or affect their operation.

☐ Passive Attack:- Attempts to learn or make use of information from the system but does not affect system resources.

6. How many IP's are there in a router?

Routers have two IP addresses. A public one and a private one.

* Public IP address is used to access the internet.

* Private IP address is used with a local network.

7. What is the function of a Network layer?

* Third layer in the OSI model.

* Main function is to transfer network packets from the source to the destination.

8. What's the difference between Broadcast & Multicast?

The key difference between broadcast and multicast is that in the broadcast the packet is delivered to all the host connected to the network whereas, in multicast packet is delivered to intended recipients only.

9. What is meant by hash function?

A hash function is used for data encryption. It converts a numerical input value into another compressed numerical value.

10. What is forwarding?

* Basic method for sharing information across systems on a network.

* Packets are transferred between a source interface and a destination interface, usually on two different systems.

11. What is routing?

Routing is the process of selecting a path for traffic in a network or between or across multiple networks.

12. What is router?

A router is a networking device that forwards data packets between computer networks.

13. What is hash?

Converting one value to another. Examples include cryptography, compression, checksum generation.

14. Can we resend the message using same hash?

→ No

15. What is DHCP?

* Dynamic Host Configuration Protocol

* A DHCP server is a network server that automatically provides and assigns IP addresses, default gateways and other network parameters to client devices.

16. What is DNS?

* Domain Name System.

* The main function of DNS is to translate domain names into IP addresses, which computers can understand.

* It also provides a list of mail servers which accept emails for each domain name.

17. What's the difference between Asymmetric and Symmetric Encryption?

The basic difference between these two types of is that symmetric encryption uses one key for both encryption and decryption, and the asymmetric encryption uses public key for encryption and a private key for decryption.

18. Class

Number of Networks

Class A

128 (2^7)

Class B

16,384 (2^{14})

Class C

2,097,152 (2^{21})