Let us start with some basic computer networks interview questions!

1. What is meant by a link and node?

A network includes two or more computers connected directly by a physical medium like coaxial cable or optical fiber. Link is the physical medium of connection in this setup, and nodes are the computers connected.

2. Define IP address.

In a network system, an IP address is a unique software address of a computer. It is 32 bit.

3. What do you understand by DNS?

There are two types of server/client programs. One is directly used by the user and the other support application programs. Domain Name system belongs to the second type as it is used by other programs, for example, to find the IP address of an e-mail recipient.

4. What is a peer-to-peer process?

A peer-to-peer process refers to all processes on a machine that communicates at a given layer.

5. Define network topology.

Network topology refers to the network's physical structure that defines how nodes or computers will be connected.

6. What is a firewall?

A firewall is a security system concept that helps in protecting computers from any cyber-attack or unauthorized access.

7. Tell us the maximum segment length of the 100Base-FX network.

The maximum length of a 100Base-FX network is 412 meters.

8. What is the role of the network layer in the OSI reference model?

The network layer is responsible for packet switching, control of network congestion, and data

routing. This layer has routers operating under it.

9. Explain OSI and its role in computer networks.

OSI or Open Systems Interconnect is a reference model for data communication. It has seven layers, each defining a particular aspect of how network devices communicate and connect. One layer dictates how data is transmitted, while the other deals with physical media used.

10. Give the disadvantage of the peer-peer network.

As the resources to be accessed are shared by one of the workstations on the network, there is a performance hit.

11. Define ping.

Ping is a utility program that allows us to check connectivity on the network between network devices. A device can be pinged by using its device name(like computer name) or IP address.

12. What is meant by clustering support?

Clustering support is the ability of a network operating system in a fault-tolerant group to connect multiple servers. The primary purpose of clustering is that if one server fails, the processing can continue with the next server in the cluster.

13. How does dynamic host configuration protocol help in network administration?

The network administrator applies the dynamic host configuration protocol to create a pool of IP addresses instead of visiting each client computer to configure a static IP address. This pool is known as the scope that can be assigned to clients dynamically.

14. What do you understand by decoder?

The decoder is a type of circuit that converts the digital signal into an analog signal and encoded data into its original format.

15. Can you tell us about the use of Pseudo TTY?

It is a false terminal allowing external machines to log in or to connect through Telnet. No connection can take place without it.

16. Tell us about the advantages of a Modem.

Some advantages of modem are:

- Its speed depends on the cost
- It is more helpful in connecting LAN with the Internet
- It is the most widely used data communication roadway.

17. Explain Proxy Server and its function.

IP addresses are required for data transmission and are even used by DNS to route to the correct website. Without knowledge of the actual and correct IP address, it is not possible to identify the network's physical location. Proxy servers prevent unauthorized access of IP addresses and make the computer network virtually invisible to external users.

18. What are the characteristics of networking?

The characteristics of networking are:

- Medium- the channel used by computers for communication
- Topology- the way computers are arranged in the network physically or logically
- Protocols- deals with how computers communicate with one another.

19. What do you understand by beaconing?

When a network self-repair its issues, then it is known as beaconing. It is mainly used in Fiber Distributed Data Interface (FDDI) and token ring networks. If a device in the network faces any problem, then the devices that are not receiving any signal are notified. This way, the problem gets repaired within the network.

20. What is SLIP?

SLIP refers to Serial Line Interface Protocol. It is used for transmitting IP datagrams over a serial line.

Advanced Computer Networks Interview Questions

Next up, we will cover the ten most advanced computer networks interview questions!

1. Can you explain what LAN is?

LAN refers to Local Area Network. It is the network between devices located in a remote physical location. It can be either wired or wireless. LANs differ from each other based on given factors:

- Protocol rules for data transfer
- Media medium for connecting like twisted pair wires and optic fibers
- Topology arrangement of nodes in the network

2. What is an anonymous FTP?

Anonymous FTP allows users to access public data. The user need not identify himself to the server, and the login is anonymous. So, while using anonymous FTP, you are required to add 'anonymous' in place of the user id. Anonymous FTPs effectively distribute large files to many people without giving vast numbers of password and username combinations.

3. Tell us about UTP cable.

A UTP cable is made up of copper and has a resistance of 100 ohms. It includes 2-1800 unshielded twisted pairs surrounded by a non-metallic case. These twists provide immunity to EMI and electrical noise.

4. What do you understand by TCP?

Transmission Control Protocol or TCP is a connection-oriented protocol that maintains an established connection between communicating devices until both are done exchanging messages. This protocol is used to determine how application data can be delivered over a network using packets. It also receives and sends packets from and to the network layer and is in charge of flow control.

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5. What is meant by NOS?

NOS or Network Operating System is an operating system designed to support databases,

workstations, personal computers, and networks. For example, Linux, MAC OS X, Windows Server 2008. These OS provide functionalities such as multiprocessing support, processor support, web services, authentication, etc.

6. Explain piggybacking.

In two-way communication, the receiver sends an acknowledgment to the sender on receiving the data packets. Suppose the receiver does not send the acknowledgment immediately and waits till the network layer passes in the following data packet. In that case, an acknowledgment is attached to the outgoing data frame. This process is known as piggybacking.

7. What do you understand by DHCP?

Dynamic Host Configuration Protocol or DHCP is a network management protocol. DHCP automatically assigns IP addresses to the devices on the network and is used on the UDP/IP networks. In turn, it reduces the need for a network admin to assign IP addresses manually; this further reduces errors.

8. What is the best place to install an antivirus program in a network containing twenty workstations and two servers?

The best option is to install antivirus on all the computers of the network. This will protect all devices from others in case there is a virus inserted into the server.

9. Tell us about IPv6.

IPv6 refers to the Internet Protocol version 6. This is the latest version of the Internet Protocol. Its IP address length is 128 bits which resolve the issue of approaching network addresses shortage.

10. What do you understand by sneakernet?

Sneakernet refers to the unofficial term for transferring electronic information by physically moving media like the USB flash, Floppy disk, optical disks, etc.

Conclusion

This article is going to be helpful for everyone attending a computer network interview. As it is a