Q13. Can you explain the concept of bandwidth and throughput?

Q14. What is DNS (Domain Name System) and how does it work?

Q15. What is a MAC address and how is it used in networking?

Q16. Can you explain the difference between a public IP address and a private IP address?

Q17. What is SSL (Secure Sockets Layer) and how does it provide security in network communications?

Q18. Can you describe the process of how a packet is transmitted from one host to another on a network?

Q19. What is a DMZ (Demilitarized Zone) and how is it used in network security?

Q20. What is BGP (Border Gateway Protocol) and how is it used in routing on the Internet?

Q21. Can you explain the difference between a hub, switch, and router?

Q22. What is DHCP (Dynamic Host Configuration Protocol) and how does it work?

Q23. Can you describe how TCP establishes and terminates connections?

Q24.What is the purpose of ARP (Address Resolution Protocol) and how does it work?

Q25. Can you explain the difference between IPv4 and IPv6 and the advantages of using IPv6?

Q41 Subnetting is an important concept in network management. Can you explain what subnetting is and how it helps in organizing and optimizing network resources?

Q42 In the context of computer networks, what is the purpose of the Domain Name System (DNS)? How does DNS resolve domain names to IP addresses?

Q43 DHCP (Dynamic Host Configuration Protocol) simplifies the assignment of IP addresses. Can you explain how DHCP works and its advantages in network administration?

Q44 The TCP/IP protocol suite forms the basis of modern internet communication. Can you discuss the key protocols within this suite and their specific functions?

Q45 Network security is essential in today's interconnected world. Can you explain the role of a firewall in a computer network and how it enhances security?

Q46 Network Address Translation (NAT) is commonly used to allow multiple devices to share a single public IP address. Can you explain how NAT works and its benefits?

Q47 Proxy servers act as intermediaries between clients and servers. Can you discuss the purpose of a proxy server in a network and how it affects communication?

Q48 Gateways enable communication between different networks. Could you explain the role of a gateway and the functions it performs in network connectivity?

Q49 Virtual Local Area Networks (VLANs) are used to segment networks. Can you explain how VLANs work and their advantages in network administration?

Q50 Can you discuss the differences between physical addresses (MAC addresses) and logical addresses (IP addresses)? How do they function in network communication?

Q51 Network protocols govern the rules and formats for communication. Can you provide examples of commonly used network protocols and their respective purposes?

Q90 Describe the concept of network latency and its impact.

Q91 What is a routing table and how is it used?

Q92 Explain the principles of wireless network communication.

Q93 What is a LAN?

Q94 What is a WAN?

Q95 Define a hub.

Q96 Explain a switch.

Q97 What is a MAC?

Q98 What is an IP?

Q99 Define DHCP briefly.

Q100 Explain TCP/IP protocol suite.

Q101 What is a socket?

Q102 Define SSL/TLS briefly.

Q103 What is a firewall?

Q104 Explain NAT briefly.

Q105 What is a VLAN?

Q106 What is latency?

Q107 Define ARP briefly.

Q108 Explain packet switching.

Q109 What is a VPN?

Q110 Define bandwidth briefly.

Q111 How does a router function in a network infrastructure, and what role does it play in directing data packets across different networks by examining IP addresses and making routing decisions?

Q112 Explain the concept of subnetting in IP addressing and how it enables the division of a large network into smaller subnetworks, enhancing network efficiency and scalability.

Q113 Discuss the advantages and disadvantages of various network topologies, such as star, mesh, ring, and bus, in terms of their ability to handle traffic, fault tolerance, and ease of administration.

Q114 What are the primary differences between TCP (Transmission Control Protocol) and UDP (User Datagram Protocol) in terms of their reliability, connection-oriented vs. connectionless communication, and suitability for different applications?

Q115 How does a network firewall function as a barrier between an internal network and external networks, filtering network traffic based on predefined security rules to protect against unauthorized access and potential security threats?

Q116 Explain the role of DNS (Domain Name System) in the internet's infrastructure, including how it translates domain names into IP addresses and facilitates the mapping of human-readable domain names to machine-readable IP addresses.

Q117 What is NAT (Network Address Translation), and how does it enable the usage of private IP addresses within a network while allowing communication with external networks by translating private IP addresses to public IP addresses?

Q118 Discuss the differences between IPv4 and IPv6 addressing schemes, including the differences in address format, the number of available addresses, and the features introduced in IPv6 to address the limitations of IPv4.