1. What is network?

* Group of connected computer called as network.

1. Explain type of network-- LAN, MAN, WAN?

* Lan - local area network
* Man - metropolitan area network
* Wan - wide area network

1. What is Internet?

* The type of network which can be use from anywhere , with the help of internet we can use global data.

1. Define Network Topologies

* Bus topologies
* Tree topologies
* Star topologies
* Ring topologies
* Mesh topologies
* Hybrid topologies

1. Define list of cables in use of network—Twisted pair , fiber optics

* Twisted pair cabling is a type of communications cable in which two conductors of a single circuit are twisted together for the purposes of improving electromagnetic compatibility.
* Fiber optics, or optical fiber, refers to the technology that transmits information as light pulses along a glass or plastic fiber.

1. Straight cable standard sequence 568 A and 568 B

* The only difference between T568A and T568B is the order in which the wires connect to the RJ45 jack. In T568A, the green wire connects to pin three and the orange wire connects to pin six. In T568B, the orange wire connects to pin three and the green wire connects to pin six.

1. What is fiber optics module and fiber connector

* An optical fiber connector is a device used to link optical fibers and An optical module is a typically hot-pluggable optical transceiver used in high-bandwidth data communications applications.

1. Explain Switch

* Switch is a combination of hub and bridge and upgrade version of hub. In single switch there are 48 maximum port. In switch bpdu package sended to all pc for receiving every pc’s mac address. Bpdu package also gives the information about pc which is on or off.

1. Explain Router

* To connect different types of network we use router.

1. Explain MODEM

* A modem is a hardware which connects to a computer, broadband network or wireless router.

1. Explain DHCP Dynamic host configuration protocol Explain Domain Naming Services What is protocol?

* Dynamic Host Configuration Protocol (DHCP) is a networking protocol for dynamically assigning IP addresses to each host on your organization's network. DHCP also assigns Domain Name System (DNS) addresses, subnet masks, and default gateways.

1. What is unicast multicast and broadcast?

* Unicast : one sender, one receiver.
* Multicast : one sender, multiple receiver but not all.
* Broadcast : one sender, all receiver.

1. What is OSI model?

* OSI model architecture consists of seven layers. It defines seven layers or levels in a complete communication system.

1. What is port number?

* A port number is a way to identify a specific process to which an internet or other network message is to be forwarded when it arrives at a server.

1. Difference between TCP V/S UDP communications What is session development?

* Tcp Is connection oriented and it is very secure and checks every package acknowledgement and udp is connection less and it is less secure and doesn’t matter if it checks or not .

1. What is flow control?

* Flow control is design issue at Data Link Layer. It is a technique that generally observes the proper flow of data from sender to receiver. It is very essential because it is possible for sender to transmit data or information at very fast rate and hence receiver can receive this information and process it. This can happen only if receiver has very high load of traffic as compared to sender, or if receiver has power of processing less as compared to sender.

1. What is the difference between TCP IP model and OSI model?

* TCP/IP is a practical model that addresses specific communication challenges and relies on standardized protocols. In contrast, OSI serves as a comprehensive, protocol-independent framework designed to encompass various network communication methods.

1. What is arp broadcast?

* ARP broadcasts a request packet to all the machines on the LAN and asks if any of the machines are using that particular IP address

1. What is mac-address?

* The MAC address is a device's physical address, which uniquely identifies it on a specific network.

1. What is ip address? Difference between ipv4 address and ipv6 address Assign multiple IPv4 in single network adapter in pc what are network vulnerabilities?

* IPv4 is version 4 of the Internet Protocol. It is one of the essential protocols of standards-based internetworking systems in the Internet and other packet-switched networks. It employs a 32-bit address scheme to store addresses. This address is distinct for every device.
* IPv6 is the most up-to-date version of the Internet Protocol (IP), it works as a communications protocol that provides an identification and location scheme for computers on networks and maps traffic across the Internet.
* The main variation between Internet Protocol Version 4 and Internet Protocol Version 6 is the address size of IP addresses. The IPv4 is a 32-bit addressing Protocol, whereas IPv6 is 128-bit hexadecimal addressing Protocol.

1. What is a firewall to use for?

* A firewall is essential software or firmware in network security that is used to prevent unauthorized access to a network.

1. Wireless router configure for internet connection and wireless security

* Click on router and then go to CLI than enter further below information
* Enter no if you are doing it for practice
* Than type enable to turn on router
* Configure terminal : to enter terminal for select port
* Interface fastethernet 0/0 : give port number
* Then type ip address and give ip and after than give space and type subnetmask

For example : Ip address 192.168.10.1 255.255.255.0

* Then after all type “no shutdown” to turn on port.
* And for pc ip configure click on pc go to desktop then ip configuration and then provide all information.

1. what is wireless access point? And what is wireless extender?

* A Wireless Access Point (WAP) is a networking device that allows connecting the devices with the wired network. A Wireless Access Point (WAP) is used to create the WLAN (Wireless Local Area Network), it is commonly used in large offices and buildings which have expanded businesses.
* Wi-Fi Extender/Repeater: Receives and amplifies existing Wi-Fi signals, extending the coverage area of the original network