

Types of computer network

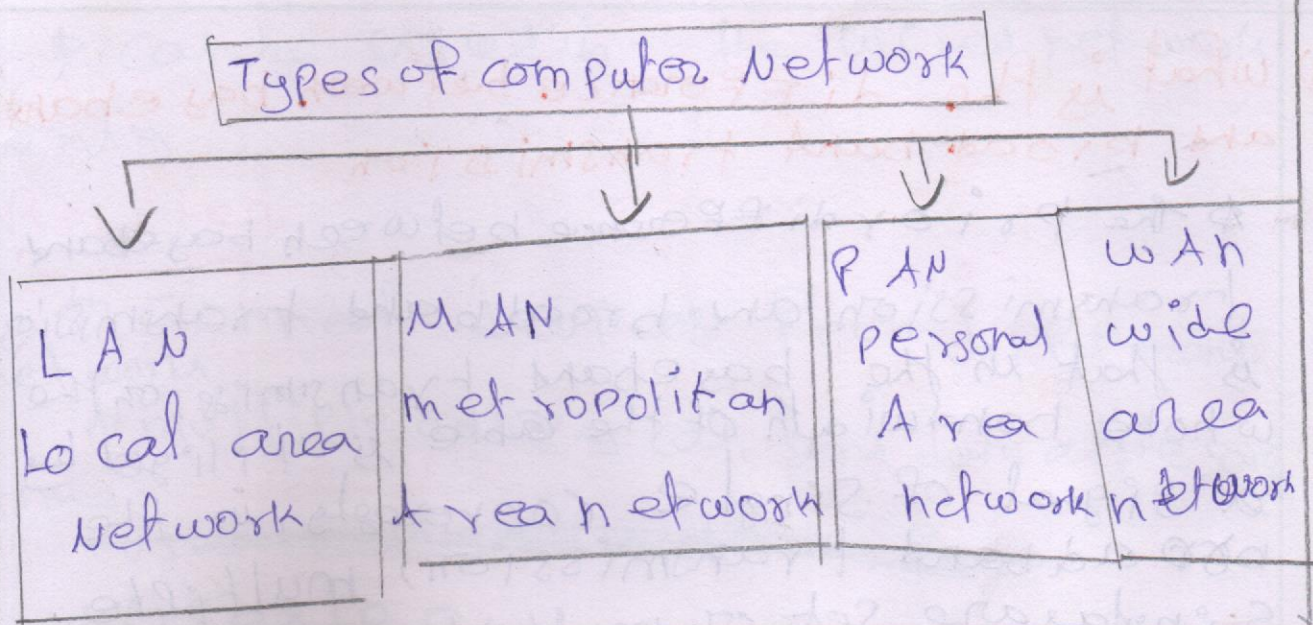
CCA - 102:

DATA COMMUNICATIONS

ASSIGNMENT

①

1) What are the different types of networks



2) Explain the shielded twisted pair (STP) and Unshielded twisted pair (UTP).

STP:-

★ Spanning tree protocol (STP) is a layer 2 network protocol used to prevent looping within a network topology. STP was created to avoid the problems that arise when computers exchange data on a local area network (LAN) that contains redundant paths.

UTP:

★ Unshielded twisted pair is a ubiquitous type of copper cabling used in telephone wiring and a local area network (LAN). The five types of UTP cabling are identified with the prefix CAT.

as in category each supporting a different of bandwidth

3) what is the difference between baseband and broadband transmission

* The primary difference between baseband transmission and broadband transmission is that in the baseband transmission the whole bandwidth of the cable is utilized by a signal of single frequency, in the broadband transmission, multiple signals are sent on multiple frequencies simultaneously using a single channel.

4) what is the difference between a hub, router and a switch?

HUB:-

- * It is the broadcast device
- * It connects devices in the same network
- * Only one device can send data at a time
- * Does not store any device information

Switches:

- * Requires inter VLAN routing
- * multicast data packets requiring complex configuration
- * Operate at Layer Two (Data Link Layer) of the OSI model.

* Main MAC address in a lookup table

* can be used in the wired network only

Router :

* Connects devices from different networks

* Multiple devices can send data at the same time

~~* uses IP address to transfer~~

* Uses IP

modem:-

* A modem is used to connect to the Internet, a router acts as a gateway to the computer network and is placed between a modem and a switch.

5) When troubleshooting computer network problems that common hardware problem can occur

* yes, that's because MAC addresses are hardwired into the NIC circuitry not the PC. This also means that a PC can have a different MAC address. We have the NIC card was replaced by a different one.

④

6) When troubleshooting computer network is working what common hardware related problems can occur?

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Some network problems can arise from faulty hardware, such as router, switches, firewalls and even from unexpected usage pattern link network bandwidth may change is app can't put in security breaches

7) In a network that contains two servers and twenty workstations where is the best place to install an anti-virus program?

The best solution is to install anti virus on all the computers in the network

8) Define static IP and Dynamic IP? Discuss the difference between IPv4 and IPv6?

When a device is assigned a static IP address the address does not change. Most devices use addresses assigned by dynamic IP addresses, which are assigned by the network when they connect and disappear when they disconnect.

The IPv4 and IPv6 are the address size of IP addresses. IPv4 is a 32-bit address. IPv6 is a 128-bit hexadecimal address.

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Q) Discuss TCP/IP model in detail.

* IP allows computers on the same network to identify and communicate with each other.

TCP/IP is a two-layer protocol with the transport layer (TCP) responsible for

reliable end-to-end communication and the Internet layer (IP) accountable for routing packets from the host to the host.

Q) What is a web browser? Give some examples of browsers.

* A web browser is a type of software that allows you to view web pages on the Internet. Even if you didn't know it, you're using a web browser right now to read this page. There are many different web browsers, but the most popular ones are Mozilla Firefox.

Q) What is a search engine? Give an example.

* A search engine is a web page that enables users to locate information on the worldwide web. Popular examples of search engines are Google, Yahoo, and MSN Search.

11) what is the internet & www? what are the uses of internet in our daily life?

ans * The internet is very much useful in our daily routine tasks for example, it helps us to see our notification and emails. A part from this, people can use the internet for money transfer, shopping order online food, etc.

12) what is an internet service provider (ISP) in India.

* An internet service provider (ISP) is a company such as A T & T, Verizon, comcast or a company such as that provides internet access to companies, families, and even mobile users. ISPs use fiber optics, satellite, copper wire, and other forms to provide internet access to its customers.

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14.) Discuss the difference between MAC address IP address and port address.

A MAC address is responsible for local identification and an IP address for global identification. A MAC address consists of 12 hexadecimal digits, usually grouped into six pairs separated by hyphens.

15.) How do we view my internet browser's history?

1. on your computer, open chrome
2. in the address bar, enter @ history
3. Press tab or space. you can also click. search history. in the suggestions.
4. Enter keywords for the page you previously visited
5. select the page from the list