ASSIGNEMT -102

1.What are the different types of networks?

Ans: A computer network is mainly of four types:

- LAN(Local Area Network): Local Area Network is a group of computers connected to each other in a small area such as buildings , office etc.
- PAN(Personal Area Network): Personal Area Network is a network arranged within an individual person, typically within a range of 10 meters.
- MAN(Metropolitan Area Network): A metropolitan area network is a network that covers a larger geographic area by interconnecting a different LAN to form a larger network.
- WAN(Wide Area Network): A Wide Area Network is a network that extends over a large geographical area such as states or countries.

2.Explain the Shielded twisted pair(STD) and Unshielded twisted pair(UTD)?

Ans: STP(Shielded twisted pair):

A shielded twisted pair is a type of twisted pair cable that contains an extra wrapping foil or copper braid jacket to protect the cable from defects like cuts, losing bandwidth, noise, and signal to the interference. It is a cable that is usually used underground, and therefore it is costly than UTP. It supports the higher data transmission rates across the long distance. We can also say it is a cable with metal sheath or coating that surround each pair if the insulated conductor to protect the wire from external users and prevent electromagnetic noise from penetrating.

UTP(Unshielded Twisted Pair)

UTP is an unshielded twisted pair cable used in computer and telecommunications mediums. Its frequency range is suitable for transmitting both data and voice via a UTP cable. Therefore, it is widely used in the telephone, computers, etc. it is a pair of insulated copper wires twisted together to reduce noise generated by external interference. It is a wire with no additional shielding, like aluminium foil, to protect its data from the exterior.

3.What is the difference between baseband and broadband transmission?

Ans:

Baseband	Broadband
Baseband refers to a single-channel digital system and that single channel is used to communication with devices on a network	Broadband , is the wide bandwidth data transmission which generates an analogy carries frequency, which carries multiple digital signals or multiple channels.

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

Ans:

Hub	Modem	Router	Switch
Connects a network of personal computers together so they can be joined through a central hub.	Modems, like router connect home PCs to the Internet.	Joins multiple area networks (LAN & WAN). Serving as "middle man" or intermediate destinations for network traffic. Using the IP they forward data to specific destination.	Joins several computers together within one local area network. They cannot join multiple networks and are incapable of sharing an internet connection.

5. when you move the NIC cards from one PC to another PC, does the MAC address gets transferred as well?

Ans: Yes, that is because MAC addresses are hardwires into the NIC circuity, not the PC. This also means that a PC can have a different MAC address when one replaced the NIC card

6. When troubleshooting computer network problems, what common hardware-related problems can occur?

Ans: A large percentage of a network is made up of hardware. Problem is these areas can range from malfunctioning hard drives, broken NICs and even hardware startups.

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

Ans: The best solutions 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.

Ans: Static IP: A computer on the internet can have a static IP address, which meant stays the same overtime, or a dynamic IP address, which mean the address can change over time.

Dynamic IP: Dynamic IP is a temporary address for devices connected to a network that continually changes over time.

Different between IPV4 and IPV6:

IPV4 and IPV6 are internet protocol version 6. IP version 6 is the new version of internet protocol, which is way better than IP version 4 in terms of complexity and efficiency.

9. Discuss TCP/IP model in detail?

Ans: TCP/IP Reference Model is a four-layered suite of communication protocols. It was developed by the DoD (Development of Defense) in the 1960s. it is named after the two main protocol that are used in the model namely, TCP and IP. TCP stand transmission Control Protocol and IP stand for internet protocols.

10. What is a Web Browser(Browser)? Give some example of browsers.

Ans: A web browser is an application used to access and view websites.

Some example of browsers includes Microsoft Edge, internet explorer, Google Chrome, Mozilla firefox and apple safari.

11. What is a search engine? Give example.

Ans: A search engine is a web based tool that enables users to locate information on the world wide web(WWW).

12.What is internet & WWW? What are the uses of internet in our daily life?

Ans: Internet is a vast network that connects computers all over the world. Through the internet, people can share information and communicate from anywhere with an internet connection.

World wide web (WWW) is an interconnected system of public webpages accessible through the internet.

Use of internet in our daily life. The internet is very much useful in our daily routine task. 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.

13.What is the Internet Service Provider? Give some example of ISP in India.

Ans: An Internet Service Provider is an organization that provide services for accessing using or participation in the internet.

Examples of ISP in India are: Airtel, BSNL etc.

14.Discuss the difference between MAC address, IP address and Port address.

Ans: A MAC address is assigned to the network interface card by the manufacture and in used for communication within the local area network. It is globally unique address.

An IP address is used for communication within the local area network and the communication between internet. It is uniquely identifies the connection if the network with that device takes part in a network.

Port address of the service within the system. A port number uniquely identifies a network based application on the computer.

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

Ans: In the lower-left corner of the browser window, tap and hold the back arrow. The page that opens contain your browser history.