ASSIGNMENT

1. What are the different types of networks?

Ans. **7 Types of Computer Networks Explained**

- PERSONAL AREA NETWORK (PAN) This is the smallest and most basic network that you'll find. ...
- LOCAL AREA NETWORK (LAN) ...
- WIRELESS LOCAL AREA NETWORK (WLAN) ...
- METROPOLITAN AREA NETWORK (MAN) ...
- WIDE AREA NETWORK (WAN) ...
- STORAGE AREA NETWORK (SAN) ...
- VIRTUAL PRIVATE NETWORK (VPN)

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

Ans. Shielded twisted pair cable (STP) has the individual pairs of wires wrapped in foil, which are then wrapped again for double protection. Unshielded twisted pair cable (UTP) **has each pair of wires twisted together**. Those wires are then wrapped in tubing without any other protection

3. What is difference between baseband and broadband transmission?

Ans. The major difference between broadband transmission and baseband transmission is that **the baseband transmission uses the complete bandwidth for transmitting the signals and occupy the whole cable** while in broadband transmission, at the same time, multiple signals can be transmitted using multiple frequencies using only

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

Ans. A hub works on the physical layer (Layer 1) of OSI model while Switch works on the data link layer (Layer 2). ... A switch can join **multiple computers** within one LAN, and a hub just connects multiple Ethernet devices together as a single segment. Switch is smarter than hub to determine the target of the forwarding data.

5. When you move the NIC cards from one PC to another PC, does the MAC address gets1 transferred as well?

Ans. When you move the NIC cards from one PC to another PC, does the MAC address gets transferred as well? **Yes**, that's because MAC addresses are hard-wired into the NIC circuitry, not the PC. This also means that a PC can have a different MAC address when the NIC card was replace by another one.

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

Ans. When troubleshooting computer network problems, what common hardware-related problems can occur? **A large percentage of a network is made up of hardware**. Problems in 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 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.

Ans. Static IP addresses

An Internet Protocol (IP) address is a **unique number assigned to each computer on a network**. ... A computer on the Internet can have a static IP address, which means it stays the same over time, or a dynamic IP address, which means the address can change over time.

Dynamic IP addresses

A dynamic IP address is **an IP address that an ISP lets you use temporarily**. If a dynamic address is not in use, it can be automatically assigned to a different device. Dynamic IP addresses are assigned using either DHCP or PPPoE.

Difference between IPV4 & IPV6

Pv4 and IPv6 are **internet protocol version 4** and 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**. ... TCP stands for Transmission Control Protocol and IP stands for Internet Protocol. The four layers in the TCP/IP protocol suite are − Host-to- Network Layer −It is the lowest layer that is concerned with the physical transmission of data.

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

Ans.
A web browser (commonly referred to as a browser) is **application software for accessing the World Wide Web**. When a user requests a web page from a particular website, the web browser retrieves the necessary content from a web server and then displays the page on the user's device.

Example of web browser : Mozilla firfox

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.

Example of search engine : GOOGLE, YAHOO

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

Ans. INTERNET :
The 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.

WWW : World Wide Web. Also known as w 3 and the Web. A global interlinked hypertext system that uses the Internet infrastructure to network client workstations and servers all around the world based on the Hypertext Transport Protocol (HTTP) and also transmitted over the Internet through the use of HTTP.The WWW also incorporates hypermedia, which is hyperlinked multimedia, including not only text, but also audio, graphics, animations, and video.Tim Berners-Lee developed the WWW

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

Ans. internet service provider : An ISP, or **internet service provider**, is a company that lets you access the internet from home, usually with a monthly subscription. Think of it like a cable company, but instead of connecting you with TV channels, an ISP connects you to the internet.

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

Ans. MAC Address : A media access control address (MAC address) is **a unique identifier assigned to a network interface controller (NIC) for use as a network address in communications within a network segment**. This use is common in most IEEE 802 networking technologies, including Ethernet, Wi-Fi, and Bluetooth

IP address : An IP address is **a unique address that identifies a device on the internet or a local network**. IP stands for "Internet Protocol," which is the set of rules governing the format of data sent via the internet or local network

Port address : A port number is **the logical address of each application or process that uses a network or the Internet to communicate**. A port number uniquely identifies a network-based application on a computer. ... This number is assigned automatically by the OS, manually by the user or is set as a default for some popular applications

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

Ans. 1.Open Google Chrome. It's a red, yellow, green, and blue circular icon.

2. Click ⋮. This option is in the top-right corner of the window.

3. Select History. You'll see this option near the top of the drop-down menu. Selecting it will prom