CCA-102: Data Communications

ASSIGNMENT

1.) Types of Networks:

i) Personal Area Network (PAN)
ii) Local Area Network (LAN)
iii) Wireless Local Area Network (WLAN)
iv) Campus Area Network (CAN)
v) Metropolitan Area Network (MAN)
vi) Wide Area Network (WAN)
vii) Storage Area Network (SAN)
viii) Passive optical Local Area Network (POLAN)
ix) Enterprise Private Network (EPN)
x) Virtual Private Network (VPN)

2.)

Shielded twisted Pair (STP)

Shielded twisted Pair is a special kind of copper telephone and local area network (LAN) wiring used in some business installations.

Unshielded twisted Pair (UTP)

Unshielded twisted Pair (UTP) is a 100 ohm copper cable that consists of 2 to 1800 unshielded twisted pairs surrounded by an outer jacket. They have no metalic shields.

3.)

Baseband Transmission	Broadband Transmission
i) It is Digital signalling	It is Analog signalling
ii) The frequency division multiplexing is not possible.	The transmission of data is unidirectional.
iii) The Baseband is bi-directional transmission.	The signal travelling distance is long.
iv) Short distance signal travelling	Frequency division multiplexing possible.
v) Example: Ethernet is using Baseband for LAN	Example: used to transmit cable TV to Premises.

4.)

Hub:

A Hub transmits data from one device to another in form of binary bits.

Modem:

A Modem is a hardware device that allow a computer or another devices such as router, switch to connect to the internet. It convert an analog signal to a digital data.

Router:

It is used to send data from one network to another network in the form of Packets.

Switch:

A switch transmits a data from one device to another in form of Frames.

5.) MAC address transfer?

Yes, that's because MAC addresses are hard-wired into the NIC circuitry, not the PC.

6.) Common hardware Problem

When troubleshooting a computer network, the common hardware Problems are malfunctioning hard drives, broken NIC's and even hardware startups

7.) Best place to install an Anti virus program.

An anti-virus Program must be installed on all servers and workstations to ensure Protection.

8.)

Static IP and Dynamic IP:

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

IPv4 and IPv6

The main difference between IPv4 and IPv6 is the address size of IP addresses. The IPv4 is a 32-bit address, whereas IPv6 is 128 bit hexadecimal address.

9:) TCP/IP Model

The TCP/IP model was developed prior to the OSI model. The TCP/IP model is not exactly similar to the OSI model. The TCP/IP model consists of five layers application layer, transport layer, network layer, data link layer and Physical layer.

10:) Web Browser:

A Web browser is an application used to access and view websites. The most common web browsers are Microsoft edge, Safari, Mozilla firefox, Google chrome, Microsoft Edge.

11:) Search Engine:

A search engine is a web based tool that enables users to locate information on the world wide web.

example:

Google, Yahoo, MSN, Bing

12.)

Internet:

The internet is a world wide system of computer networks. A network of networks in which users at any one computer can, if they have permission, get information from any other computer.

WWW:

The www is stands for world wide web. It is a collection of web pages found on this network of computers.

example:

To check emails, Read news, watch youtube videos and To search any informations.

13.) Internet service Provider:

The term internet service Provider (ISP) refers to a company that Provides access to the internet to both personal and buisiness customers

example:

ISP in India are BSNL, Airtel, jio, Hathway.

14.)	MAC address	IP address	Port address
i)	The Primary use of a MAC address is to ensure the Physical address of a given device/computer.	The IP address, on the other hand, defines a computers logical address	It is used for identifying any Process/service Present on your System
ii)	It operates on the data link layer	It operates on the network layer.	It represents the device in network.

15) Internet browser History:

i) Go to Settings

ii) click on Data & Privacy tab

iii) under History tab, you can view your browser history.