

CCA 102 - Data Communication Assignment

Q1 What are the different types of networks?

- Ans. Personal Area Network (PAN) - - -
 • Local Area Network (LAN) . . .
 • Wireless Local Area Network (WLAN) . . .
 • Campus Area Network (CAN) . . .
 • Metropolitan Area Network (MAN) . . .
 • Wide Area Network (WAN) . . .
 • Storage - Area Network (SAN) . . .
 • System - Area Network (also known as SAN)

Q2 Explain the Shielded twisted pair (STP) and Unshielded twisted pair (UTP).

Ans. The basic difference b/w UTP and STP is UTP (Unshielded twisted pair) is a cable with wires that are twisted together to reduce noise and crosstalk. On the contrary, STP (Shielded twisted pair) is a twisted pair cable confined in foil or mesh shield that guards the cable against electromagnetic interference.

Q3 What is difference b/w baseband and broadband transmission?

Ans Baseband transmission -

1. Digital Signalling.
2. Frequency division multiplexing is not possible.
3. Baseband is bi-directional transmission.
4. Short distance signal travelling.
5. Entire bandwidth is for single transmission.
6. Example: Ethernet is using Basebands for LAN.

Broadband transmission -

1. Analog Signalling.
2. Transmission of data is unidirectional.
3. Signal travelling distance is long.
4. Frequency division multiplexing possible.
5. Simultaneous transmission of multiple signals over different frequencies.
6. Example: Used to transmit Cable TV to premises.

Q4 What is the difference b/w 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.

Q5 When you move the NIC cards from one PC to another PC, does the MAC address gets transferred as well?

Ans 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 another one replaced the NIC card.

Q6 When troubleshooting computer network problems, what common hardware-related problems can occur?

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

Q7 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.

Q8 Define static IP and Dynamic IP?
Discuss the difference b/w IPv4 and IPv6.

Ans 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.

Q9 Discuss TCP/IP model in detail.

Ans It stands for Transmission Control Protocol / Internet Protocol. The TCP/IP model is a concise version of the OSI model. It contains four layers, unlike seven layers in the OSI model.

TCP/IP	OSI
TCP refers to Transmission Control Protocol.	OSI refers to Open Systems Interconnection.
TCP/IP has 4 layers.	OSI has 7 layers.

Q10 What is a web Browser (Browser)? Give some example of browsers.

Ans "A web browser, or simply 'browser', is an application used to access and view websites. Common web browsers include Microsoft Edge, Internet Explorer, Google Chrome, Mozilla Firefox, and Apple Safari."

Q11 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. Popular examples of Search engines are Google, Yahoo!, and MSN Search.

Q12 What is the Internet and 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 notifications and emails. Apart from this, people can use the internet for money transfers, shopping, order online food etc.

Q13 What is an Internet Service Provider?
Give some example of ISP in India:

Ans ISP stands for 'Internet Service Provider'.
Example are - airtel, BSNL, etc.

Q14 Discuss the difference b/w MAC address, IP address and Port address?

Ans The main difference b/w MAC and IP address is that, MAC Address is used to ensure the physical address of computer. It uniquely identifies the devices on a network.
While, IP address are used to uniquely identifies the connection of network with that device take part in a network.

Q15 How do we view my internet browser's history?

Ans To view your browsing history in Chrome.

In any Chrome window, use the Keyboard shortcut $CH+H$, or navigate to the URL `chrome://history`. or, click menu button, which is located near the top-right side of the browser window, and choose History, then History again.