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CCA-102: Data Communication

Assignment

Q.1. What are the different types of networks?

Ans: Two basic network types are local-area networks (LANs) and wide-area networks (WANs). LANs connect computers and peripheral devices in limited physical area, such as a ~~bus~~ business office, laboratory, or college campus, by means of links (wires, Ethernet cables, fibre optics, Wi-Fi) that transmit data rapidly.

1. Personal area network.
2. Local area network
3. Wireless Local area network
4. Campus Area network.

Q: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. These wires are then wrapped in tubing without any other protection.

Q:3. What is difference between baseband and broadband transmission?

Ans: Baseband transmission is a data transmission technique in which one signal needs the whole bandwidth of the channel to transfer the data. In contrast.
Broadband transmission is a transmission technology in which many signales with different frequencies send data across a single channel at the same time.

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

Ans: 1. A Hub: unlike switches, hubs broadcast data to all ports, which is inefficient, so hubs are basically a multiport repeaters.

2. Modem: Modems are hardware devices that allow a computer or another device, such as a router or switch, to connect to the internet. They convert or "modulate" an analog signal from

telephone or cable wire to digital data (1s and 0s) that a computer can recognize.

3. Routers:- work at layer 3 (Network) of the OSI model, which deals with IP addresses. Typically, routers today will perform the functionality of both a router and a switch - that is the router will have multiple ethernet ports that devices can plug into.

4. Switches:- They use the MAC address of a device to send data only to the port the destination device is plugged into. work at Layer 2 (Data Link) of the OSI model, which deals with MAC addresses.

Q:5 When you move the NIC cards from one PC to another PC, ~~words~~ 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 the NIC card was replace by another one.

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

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

Q: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 computer in the network. To be more secure install in all the 3 servers, if you want to

Q:8. Define Static IP and Dynamic IP? Discuss the defference between 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. IPV4, internet protocol version 4, is the standard protocol used most frequently today. IPV6 devices have a fixed IP address or obtain one using a DHCPV6 server.

Q: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 (Department of Defence) in the 1960's. It is named after the two main protocols that are used in the model, namely, TCP and IP. TCP stands for Transmission control protocol and IP stands for internet protocol.

Q:10. What is a web Browser (Browser)? Give some example of browsers.

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

Q: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 word wide web. Popular examples of search engines are Google, Yahoo! and MSN Search.

Q:12. 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 use to see our notifications and emails. Apart from this, People can use the internet for money transfers, shopping order online feeed. etc.

Q:13. What is an internet service provider? Give some example of ISP in India.

Ans:- The examples of some internet service providers are Hathway, BSNL, Tata teleservices, Verizon, Reliance Jio, ACT Fibernet and many more working in India as well as word wide. Internet service providers or ISPs are responsible for providing services for using the internet.

Q:14. Discuss the difference between MAC address, IP address and port address?

Ans:- The physical address - which is also called a media access control, or MAC address - identifies a device to other devices on the same local

network. The internet address - or IP address - identifies the device globally. A network packet needs both addresses to get to its destination.

Q: 15. How do we view my internet browser history?

Ans: 1. On your Android phone or tablet, open the Chrome app.

2. At the top right, tap more: History. If your address bar is at the bottom, swipe up on the address bar.

3. To visit a site, tap the entry. To open the site in a new tab, touch and hold the entry. At the top right, tab more.