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CCA-102: Data Communication

ASSIGNMENT

Q:-1 What are the different types of network?

Answer Two basic network types are local-area network (LANs) and wide area network (WANs). LANs: Connect computers and Peripheral devices in a limited physical area such as a business office, Laboratory or college Campus, by means of link.

Types of network

- Personal Area Network
- Local Area Network
- Wide Area Network
- System Area Network

Q: 2 Explain the Shield twisted pair (STP) and unshielded twisted pair (UTP)

Answer Shield twisted pair Cable (STP) has the individual pairs of wires wrapped in foil; which are then wrapped again for duble protection Unshielded twisted pair Cable (UTP) has each pair of wires

Twisted together. Those wires are then wrapped in tubing without any other protection.

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

Answer

Baseband →

Baseband transmission is a data transmission technique in which one signal needs the whole bandwidth of the channel to transfer the data.

2. Baseband transisson signals travel shorter distances because attenuation is most noticeable at higher frequencies, which causes a signal to travel short distances without losing power.

3. The baseband transmission utilizes digites signalling for signal transmission.

~~Baseband~~ :

Broadband Transmission

1° In Contrast, broadband transmission is a transmission technology in which many signals with different frequencies send data across a single channel at the same time.

2° In Contrast, broadband transmission does not utilize any digital encoding but it utilize the PSK encoding

3. In Contrast, the signals in broad band transmission may travel across larger distances

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

Answer → Hub :-

Hub is the network connecting devices, they help to connect various devices. Hub works at the physical layer and transmits the signal to the port.

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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 a telephone or cable wire to digital data that a computer can recognize

Routers.

Routers are responsible for sending data from one network to another. Typically, routers today will perform the functionality of both a router and a ~~switch~~ Switch - that is the router will have multiple ethernet ports that device can plug into.

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 address

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Q:-5 When you move the NIC cards from one PC to another PC, does the MAC address gets transferred as well?

Answer Yes, that is because MAC address are hard-wired into the NIC circuitry not the PC. This also mean 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?

Answer Most common hardware related problems are PaBX, LAN Card, WLAN Card and Wi-Fi AP if it is wireless, cables, Switches, Routers and wireless Controllers. Most Problems are hardware related a faulty power Cable or power supply unit.

Q:-7 In a network that contains two servers and twenty workstation, where is the best place to install an Anti-Virus program?

Answer The best Solution is to install antivirus 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 difference between IPV4 and IPV6

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

Answer 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 web Browser (Browser)? Give some example of browsers

Answer "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 safari.

Q:11 What is a search engine? Give example?

Answer 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?

Answer The internet is very much useful in our daily routine tasks. for example, it helps use to see our notifications and emails.

A part from this, People can use the internet for money transfers, shopping order online food etc.

Q.3 What is an internet service provider, give some example of ISP in India

Answer - 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 world wide internet service providers or ISPs are responsible for providing services for using the internet

Q.4 Discuss the difference between MAC address, IP address and port address

Answer 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 address to get to us destination.

Q-15 How do we view my internet browser's history?

Answer: 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