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Course Title! Data Communication

CCA 102: DATA Communication

Assignment - 2

Q1 What are the different types of networks?

- Ans:-
- ① PAN (Personal Area Network).
 - ② LAN (Local Area Network.)
 - ③ MAN (Metropolitan Area Network).
 - ④ WAN (Wide Area Network.)

Q2 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.

Q3 What is the difference between baseband and broadband transmission?

Baseband tran.	Broadband trans.
① Digital signalling.	Analog signalling.
② Frequency division multiplexing is not possible.	Transmission of data is unidirectional.
③ Eg, Ethernet is using basebands for LAN.	Eg, used to transmit cable TV to premises.

Q4. What is the difference b/w a hub, modem, router and a switch?

Ans: A hub: A hub transmits data from one device to another in form of binary bits.

Modem: Modem are used to connect to the Internet while hubs are used in Local Area Networks. A modem is used as an interface b/w a digital and analog network.

router: A router transmits data from one network to another in forms of packets.

Switch: A switch transmits data from one device to another in forms of frames.

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

Ans: Yes, that's because MAC addresses are hardwired 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 trouble shooting computer network problems what common hardware-related problems can occur?

Ans: A large percentage of a network is made up of hardware problems. In these areas can range from malfunctioning hard drives, broken NICs, and hardware startups.

Q7. In a network that contains two servers +

Q. 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.

Q. 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 & change over time. The main difference b/w IPV4 and IPV6 is the address size of IP addresses. The IPV4 is a 32-bit address, whereas IPV6 is a 128-bit hexadecimal address. IPV6 contains a simple header as compared to IPV4.

Q. 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.

Q. What is a web browser? Give some examples of browsers?

Ans: A web browser or simply 'browser' is an application used to access & view websites. Common web browsers include Microsoft Edge, Google Chrome, Apple Safari,

Internet Explorer opera MIMP + Mozilla
firefox

Q11 What is a search engine? Give examples

Ans:- A search engine is a web-based tool that enables user to locate information on the world wide web. Popular eg, of search engines are google, yahoo and MSN search.

Q12 What is the Internet + WWW? What are the uses of internet in our daily life?

Ans:- The world wide web, or web for short, are the pages you see when you're at a device + you're online. But the internet is the network of connected computers that the web works on, as well as what emails + files travel across. Think of the internet as the roads that connect towns + cities together. The internet is very much useful in our daily routine tasks.
e.g, it helps us to see our notification + emails. Apart from this, people can use the internet for money transfers, bill pay, online shopping, online order food etc.

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

Q13: An Internet service provider is an organization that provides services for accessing using or participating in the Internet. Internet service providers can be organized in various forms, such as commercial, community-owned, non-profit or otherwise privately owned.

The examples of some Internet service providers are Hathway, BSNL, TATA Tele services, verizon, Reliance Jio, Airtel Fibernet and many more working in India as well as worldwide. Internet service providers or ISP are responsible for providing services for using the internet.

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

Ans: MAC Address stands for Media Access Control address. IP Address stands for Internet protocol Address. MAC address ensure that physical address of the computer is unique. IP Address is a logical address of the computer & is used to uniquely locate computer connected via a network.

Q15 How do we view my Internet browser history?

Ans: In the lower-left corner of the browser window bar & hold the back arrow. The page that opens contains your browser history.

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CCA - 103: Communication & Soft Skills

Assignment - 3

Q1 Elaborate the process & elements of communication in detail through suitable examples?

As: The elements involved in the communication process are explained below in detail.

Sender: The sender or the communicator generates the message and conveys it to the receiver. He is the source and the one who starts the communication.

Message: It is the idea, information, views, fact, feeling, etc. that is intended to be communicated further.

Encoding: The message generated by the sender is encoded symbolically such as in the form of words, pictures, gestures etc before it is being conveyed.

Media: It is the term media, which is the plural of medium, refers to the communication channels through which we disseminate news, music, movies, education, promotional messages & other data. It includes physical & online newspapers & magazines, television, radio, billboards, telephone, the Internet, fax & billboards.

Decoding ⇒ It is the process of converting the symbols encoded by the sender. After decoding the message is received by the receiver.

Receiver ⇒ He is the person who is last in the chain and for whom the message was sent by the sender. Once the receiver receives the message and understands it in proper perspective and acts according to the message. Only then the purpose of communication is successful.

Feedback ⇒ Once the receiver confirms to the sender that he has received the message and understood it, the process of communication is complete.

Noise ⇒ It refers to any obstruction that is caused by the sender, message or receiver during the process of communication.

Eg, bad telephone connection, faulty encoding, faulty decoding, inattentive receiver, poor understanding of message due to prejudice or inappropriate advice.

