CCA - 102: Data Communications:

ASSIGMENT:

1 What are the different types of network ?

Ans: The different types of network are:

1) Local Area Network (LAN)
2) WLAN (Wireless Ethernet I EEE.)
3) WAN (Wide Area Network)

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2. Explain the shielded twisted pair (STP) and unshielded twisted pair (UTP).

Ans: Shielded twisted pair (STP) is a special kind of copper telephone and local area network (LAN) wiring used in some business installations. It adds an outer covering or shield that functions as a ground to ordinary twisted pair wiring.

An unshielded twisted pair (UTP) cable is made up of a bundle of twisted pairs. The twisted pair are small 22- or 24- American Wire Gauge (AWG) sized wires twisted around each other.

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Q3 What is the difference between baseband and broadband transmission?

Ans Baseband : A system that uses a single data channel in which the whole bandwidth of the transmission medium is dedicated to one data channel at a time

Eg. LAN.

Broadband : A multiple data channel system in which the bandwidth of the transmission medium carries several data streams at the same time.

Eg. WAN.

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Q4. What is the difference between a hub, modem, router and a switch.

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

Modem takes the signal that come from internet service Provider and translates them into an internal connection for the router to broadcast.

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

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

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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?

Ans: Yes, because MAC addresses are hard-wired into the NIC circuitry not the PC.

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

Ans: A large per percentage of a network is made up of hardware. Problems in these areas can range from malfunctioning hard drives, broken NICs and even hardware startups. Incorrectly hardware configuration is also one of those culprits to looks into.

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Q7. In a network that contains two servers and twenty workstation, 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 said network.

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Q 8 Define Static IP and Dynamic IP ? Discuss the difference between IPV4 and IPV6.

Ans : The distinction between Static and Dynamic IP address lies inside the length of allotted scientific discipline address. The static scientific discipline address is fastened scientific discipline address that is not manually allotted to a tool for a protracted amount of time, while Dynamic scientific discipline address often changes whenever users boots his/her machine, and its mechanically allotted.

IPV4
1) The length of IPV4 is 32 bit.

Example: 192.210.0.251

② It consists 4 octets

IPV6
① The length of IPV6 is 128 bit.

Ex. 1231:456 7:8 9 ab; cdef:4567 : 0: 123

② It consists 8 octets.

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Q9. Discuss TCP/IP model in detail.

Ans: TCP/IP model is a four-layered suite of communication protocols. It was developed by the DoD (Department of Defence) in the 1960s. 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

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

Ans: A web browser is a computer software application that allows people to browse websites on the internet.

For example: Google Chrome, Internet Explorer, Safari, Opera and Firefox are examples of widely used browser.

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Q11. What is search engine? Give example.

Ans: A search engine is a web-based tool that enables users to locate information on the World Wide Web.

Eg. Google, Yahoo and MSN search.

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Q12. What is the internet & WWW? What are the used of internet in our daily life.

Ans: The internet is the network of connected computer that the web works on, as well as what emails and files travel across. but the World wide Web or Web are the pages we see when we are at a device and when online.

The internet is very much useful in our daily life for example it help us to see our notification and emails. Apart from this, people use the internet for money transfers, shopping order online, food etc.

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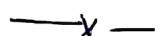
Q13 What is an internet Service Provider ? give some example of ISP in India.

Ans: An Internet Service Provider (ISP) is a company such as AT&T, Verizon, Comcast, or Spectrum that provides internet access to companies, families and even mobile users.

Some example of ISP in India are Jio, Airtel, BSNL etc.

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Q14 Discuss the difference between MAC address, IP address and Port address.

Ans: A MAC address is assigned to the network interface card by the manufacturer and is used for communication within the local area network. It is a globally unique address.

An IP address is used for communication within the local area network and for communication between network (usually through the internet).

Port numbers are used as part of IP communication's to determine which program the communication is to or form.

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

Ans: In Internet Explorer, select the Favourites ☆ button, select the History tab, and choose how we want to view our history by selecting a filter from the menu.

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