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CCA = 102 DATA COMMUNICATIONS

ASSIGNMENT = 2

Ques 1 What are the different types of networks?

Ans 1
1 Personal Area Network (PAN)
2 Local Area Network (LAN)
3 Wireless Local Area Network (WLAN)
4 Campus Area Network (CAN)
5 Metropolitan Area Network (MAN)
6 Wide Area Network (WAN)
7 Storage-Area Network (SAN)
8 System-Area Network (also known as SAN)

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

Ans 2

SHIELDED TWISTED PAIR

- 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

Unshielded twisted pair cable (UTP) has each pair of wires twisted together. Those wires are then wrapped in tubing without any other protection.

Ques 3 What is difference between baseband and broadband transmission?

Ans:3 Broadband :- System use modulation techniques to reduce the effect of noise in the environment. Broadband transmission employs multiple channel unidirectional transmission using combination of phase and amplitude modulation.

BASEBAND :- is a digital signal is transmitted on the medium using one of the sings signal codes like NRZ, RZ Manchester biphase-M code etc. is called baseband transmission.

S.No	BASEBAND TRANSMISSION	BROADBAND TRANSMISSION
1>	In baseband transmission the type of signalling used is digital.	In broadband transmission the type of signalling used is along.
2>	Baseband transmission is bidirectional in nature.	Broadband Transmission is unidirectional in nature.
3>	Signals can only travel over short distance.	Signal can be travelled over long distances without being attenuated.
4>	It works well with bus topology.	It is used with a bus as well as tree topology.

Ques:-4 What is the difference between a hub, modem, router and a Switch?

Ans:-4 1) HUB :- Unlike Switches, hubs broadcast data to all ports, which is inefficient, so hubs are basically a multiport repeaters.

2) MODEM :- Stands for modulating-demodulating. 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 (1s and 0s) that a Computer can recognize.

3) ROUTER :- 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.

4) ROUSWITCHES :- Are responsible for sending data from one network another. Typically routers today will perform the functionality of both a router and Switch - that will have multiple ethernet ports that devices can plug into.

Ques 5 When you move the NIC cards from one Pc to another Pc does the MAC address gets transferred as well?

Ans 5 MAC addresses are burned in to the NIC card and transfer with the network adapter.

Having said that, I can't think of an even semi-modern OS that won't let you change it to whatever you want in the configuration of the device. I've changed MAC addresses of computers many times over the years. Usually to fix stupid card crap like assigning a software license to a particular MAC address. Worthless because you can easily change it. If I want to move it to a new server I'm just gonna change it rather than deal with trying to contact a company that may or may not even be in business anymore.

Ques 6 When troubleshooting computer network problems what common hardware-related problems can occur?

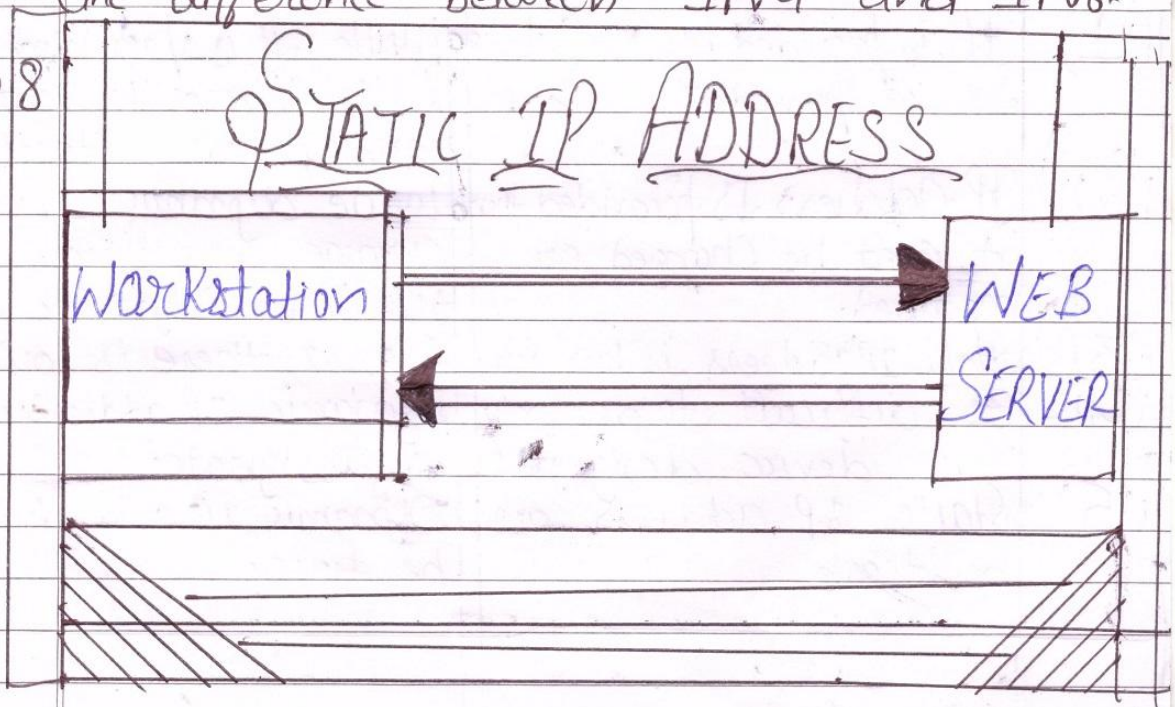
Ans 6 A large percentage of a network is made up of hardware. Problems in these areas can range from malfunctioning hard drives broken NIC and even hardware startups.

Ques 7 In a network that contains two servers and twenty workstations, where is the best place to install an anti-virus program?

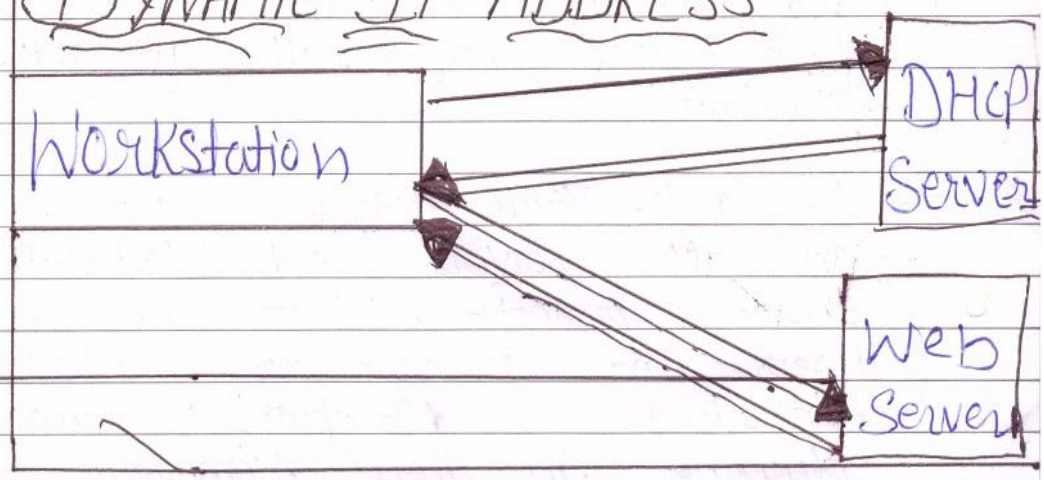
Ans 7 An anti-virus program must be installed on all servers and workstations to ensure protection. That's because individual users can access any workstation and introduce a computer virus when plugging in their removable hard drives or flash drives.

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

Ans 8



DYNAMIC IP ADDRESS



S.NO	Static IP Address	Dynamic IP Address
(1)	It is provided by ISP(Internet Service provider).	While it is provided by DHCP (Dynamic Host Configuration protocol.
(2)	IP address is provided then it can't be changed or modified.	While dynamic IP address change any time.
(3)	Static IP address is less secure	While in dynamic IP address, there is low
(4)	Is difficult to designate. The device designate	Dynamic IP address is easy to designate.
(5)	Static IP address can be trace	Dynamic IP address can't be trace.

Ques 9 Discuss TCP/IP Model in detail.

Ans 9 Introduction to the TCP/IP Model. The TCP/IP model is a part of the internet protocal Suite. This model acts as a Communication protocal for Computer networks and Connects hosts on the Internet. It is a Concise Version of the OSI Model and Composes four layer its structure.

Ques 10 What is a Web Browser (Browser)? Give some example of browsers.

Ans 10 A Web browser or browser for short is a Computer software application that enables a person to locate, retrieve, and display Content such as webpages, images, video, as well as other files on the World Wide Web. Browsers work because every Web page, image and video on the web has its own Unique Uniform Resource Locator (URL), allowing the browser to identify the resource and retrieve it from the web server.

Example of Browsers • Internet explorer • Google Chrome. • Mozilla Firefox. • Safari etc.

Ques 11 What is a search engine? Give example?

Ans 11 A search engine is a Web-based tool that enables users to locate information on the World Wide Web. Papular examples of search engines are Google, Yahoo! and MSN Search.

Ques 12 What is the internet & WWW? What are the uses of internet in our daily life?

Ans 12 There are many uses of the Internet, however the uses of the internet in our daily life depends on Individual requirements and goals.

- Uses of the Internet in Education.
- Internet uses to speed up daily Tasks.
- Use of the Internet for shopping.
- Internet for Research & Development.
- Digital Transactions.
- Money Management.

Ques 13 What is the an Internet Service provider? Give some example of ISP in India?

Ans 13 The term Internet service provider (ISP) refers to a company that provides access to the Internet to both personal and business customers. And example of ISP in India. (1) An Internet service provider (ISP is company such as AT,ST. (2) Verizon (3) Comcast, or Bright House that provides ISP's use fiber-optics, Satellite, copper wire, and other forms to provide Internet access to its customers.

Ques 14 Discuss the difference between MAC address IP address and port address.

Ans 14 The main difference between (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.

Ques 15 How do We View my Internet browser's history?

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Date

Ans-15

INTERNET BROWSER HISTORY

- At the top right tap More. History. If your address bar is at the bottom, Swipe up on the address bar. Tap History.

- To visit a site tap the entry. To open the site in a new tab. touch and hold the entry. At the top right. tap More. Open in new tab. To copy the site. Touch and hold the entry.