CCA - chapter-2 (Data communication)

Assignment - 2

Q1.) what are the different types of network.

Network - A Network consists of two or more computers that are linked in order to share resources (such as printers and CD's) Exchange files, or allow electronic communications. The computer On a network may be linked through cables telephone lines, radio waves, satelites, or Infrared light beams

Seven types of Networks and their use cases :-

- Personal Area Network

personal Area Network (PAN) is so Smallest and simplest type of Network. This type of network is designed to enable device in a small office or home office So Environment to office communicate and share resources data and applications either & wired or wirelessly.

Local Area Network (LAN)

A Local area Network (LAN) consists of a series of computer linked together to form a network in a Circumscribed location. The computers in A LAN connect to each other via Tcp/IP Thernet or wifi. A LAN is normally Exclusive to an organization Such as a school office Associatio

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3.) Wide area Network (WAN)

A wide area network (WAN) is the technology that connects and your office. Data Centers cloud applications and cloud storage together. It is called a wife ared Network because it spans by and a Single building or large compus it includes multiple locations spread across a specific geographic Area or even the world.

4.) wireless local Area Network (WLAN)

A wireless local Area Network is a wireless computer network that links two or more device using wireless communication to form a local Area network (LAN) within a limited Area such as a home, School computer laboratory, compus, or of office building.

5.) Compus Area Networking (CAN)

A compus Network, Compus Area Network corporate Area Network made up of an inte connection of local Area networks within a limited geographical Area wekipidia.

6.) Storage Area Network (SAN)

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A Storage Area Network (SAN) is a dedicated Network tailored to a specific environment combining Servers. Storage system, Networking Switches, software and Servieres.

Q2.) Explain the Shielded twisted pair (STP) and Unsheilded twisted pair (U.T.P)

Ans Sheilded twisted pair (S.T.P) — Sheilded twisted pair (STP) is a special kind of copper tellphone and local Area Network (LAN). ewing used in some business installation it Adds an outer covering or sheild that funtionons as a ground to ordendry twisted pair wiring.

Unsheilded twisted pair (U.T.P) — UTP is a ubegilious types of copper cabling used in tellphone curring an local area network (LAN's) there are five types of UTP cables — edentified with the prefix CAT as in category each supporting a different Amount of Bandwith

Q3.) what is different between base Band and Broad Band transmission.

Baise Band — Base Band is Broad band System use onaudution techniques to reduce to signal codes like NRZ, RZ manchester, M code etc called base band transmission.

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~~Broad Board~~ =

	Base Band	Broad Band
1.)	Digital signalling	Analog Signalling
2.)	frequency division	The Transmission of data.
	~~Base~~	
3.)	The baseband transmission the type of signaling used is digital.	I am broad band Transmission Is undirection in nature.
4.)	The Sy Signals to be sent in both directions	Sending of signal in one direction only.
5.)	It works well with bus-topology	It is used with bus as well as tree topology.

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Q4.) when you move the NIC cards from one PC to Another PC does the MAC. Address gets Transfered as well.

When you move the NIC cards. from one PC to another PC does the MAC address gets transferred as well ? yes, thats because MAC Address are hard coired into the NIC circulatory not the PC this also mean that a PC can have a different MAC address. when another one replaced the NIC card.

Q5.) when trouble shooting Computer not work problems what common Hard ware - related problems can Occur?

Ans Most Common Hardware related problems are PABX LAN card and wifi, AP if wireless cables, switches Routers and wirless controllers.

Most problems are Hardware related a faulty Power cable or power supply unit, some times RAM needs to be upgraded or VGA cable is not properly connected.

Q6.) In a Network that contains two serves and twenty work stations, where is the best place to Install an Anti virus program?

An Anti virus program must be installed on all servers and work stations to ensure ~~protection~~ protection. That is because individual at users can acess any workstation and introduce a computer virus when

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plugging in their removable Hard drivers or flash drivers.

Q4.) Define Static IP and dynamic IP : Discuss the difference between IPV4 and IPV6

Static IP Address. – A static IP Address is expecitly allocated to a device rather than one that a DHCP Server has assigned, Because it does not change. It is called static

Static IP Address can be configured on routers. phones tables, desktop, laptops and any other device that can be coe an IP Address.

Dynamic IP Address. – An dynamic IP address that you can use for a limited time if a dynamic Address isn't in use. It can be allocted to Another device automatically DHCP or PPOE are used to assign dynamic IP Address.

	Static IP Address	Dynamic IP Address - DHCP
1.)	Internet Service provide Is provider the Static IP Address.	DIPA is used to generate dynamic IP Address.
2.)	Static IP Address does not get changes with time.	dynamic IPaddress can be changed only time.

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3.) Static IP Address is less Secured	Dynamic IP Address being Volatile in nature is less risky.
4.) Device using static IP Address can be Traced easily	Device using dynamic IP Address is to difficult to trace.

IPV4 — is composed of 32-bit address lengths and is the ~~fourth~~ fourtin version of the Internet protocol IP- IPv6 is composed of 128-bit address length and is the latest up dealed version of the Internet protocol (IP)

Difference between IPv4 and IPv6 Address.

Here is the main difference between IPV4 and IPv6

	IPV4	IPV6
1.)	IPV4 is a 32 Bit IP Address	IPv6 is 128 Bit IP Address
2.)	IPV4 is a ~~na~~ numeric address and its benary bit are seperated by a dot (.)	IPv6 is Analphanum eric Address whose binary bits are Separated by a colon (:) it also contains nexadeemal.

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3.) length of header feild 20	length of feild 40.
4.) has check sum feild	Does not have any check sum feild
Example - 12 -224, 233-165	2001 : add 8 : 0000 : 0000 : 0000 : ff00 : 0042 : 7&79
fragmentation is done by Sending and forwarding routes	fragmentation is done by the Sender.

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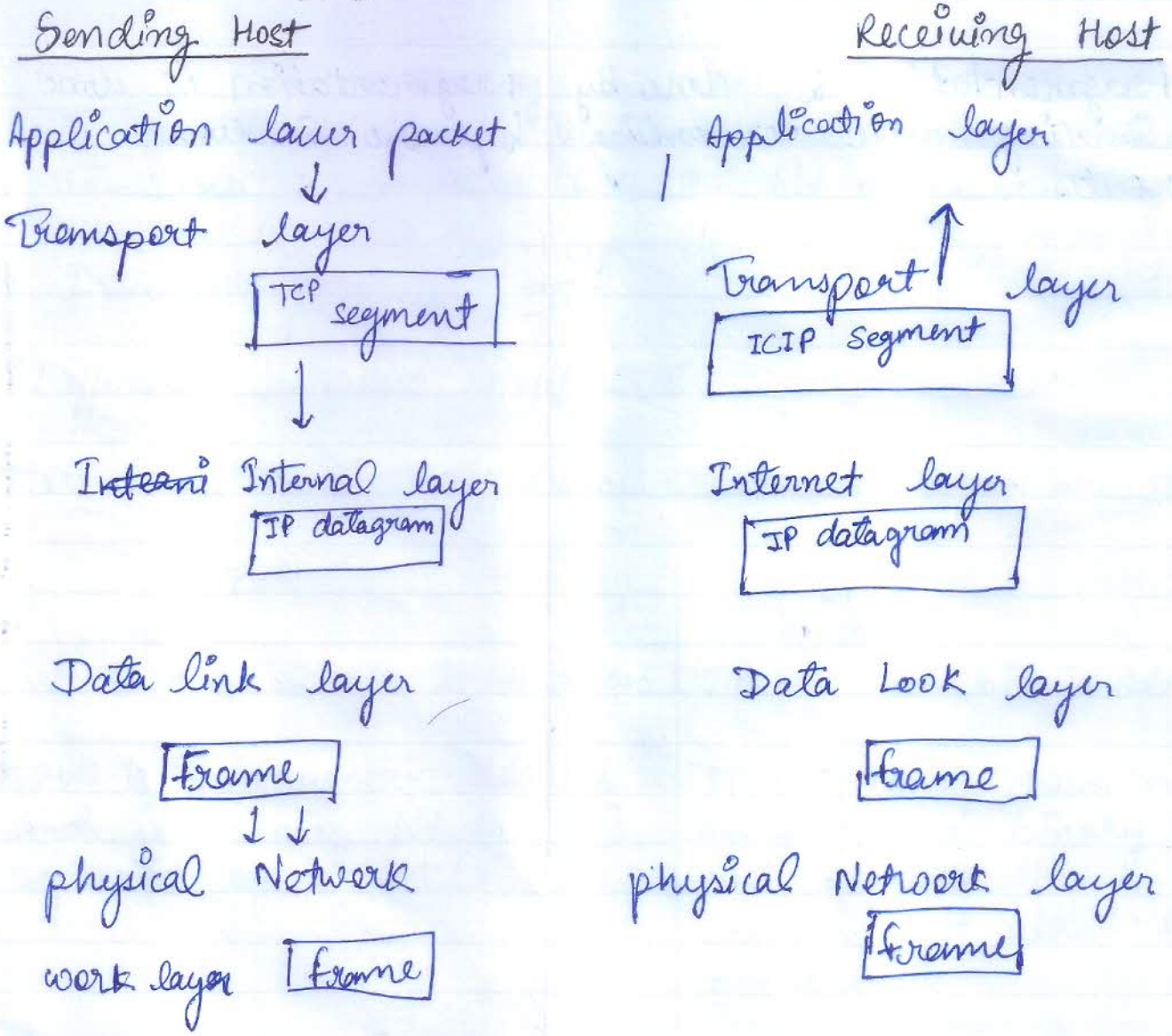
Ans TCP/IP stands for Transmission Control protocol/ Internet protocol and is a sweet of communication protocols used to Internet network device on the Internet. TCP/IP is also used as a communication protocal in a private computer network.



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Q4) what is a web browser (Browser give some exemples of Browsers.

Ans Web Browser: A web browser is a software Application that is used to acess the world wide web (WWW) or as known by everyone on the Internet. It is an Interface between us and the information available on the web.

This information might be pictures audio, videos or some other files that are shown on our screens through.

Web page: The web browser can be called a client program as it requests the web servers for that information demanded by the browsers, are google, Mozilla, firefox, safari, internet, explore, Netscape, Navigator etc.

There are 10 ~~Exp~~ Examples of web Browsers. which are given below.

1) Internet Explorer
2) Google chrome
3) Mozilla fire fox
4) Safare
5) Opera
6) Konqueror
7) Lynx
8) Tor Browser
9) UC Browser
10) Brave Browser

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Q10) what is a Search Engine ? give Example.

Ans Search Engine - A search Engine is a software program which designed to program web searches on the world wide web (w.w.w) you can call the Search Engine as an answering machine Search Engines discover process and organize Internet content and provide it to users when Searching for any Information. A Searching Engine is a web Based tool that is used by people to locate Information on the Internet some of the most popular Example of Search Engines are google, Being, yaha, MSN Search google is the most used search Engine world wide with a 92% market share in mid - 2014 google my be one of the most popular Search Engine but there are many more Alternative Search Engines available for a users.

Top Search Engineers alternative to google.

1. Bing
2 Esasia
3 wiki. com
4 Yaheo
5 CC Search
6 Owant
7 Ask
8 Duck Duck Go
9 Esosia
10 Swisseowes
11 Gibiru
12 Yan Dex.
13 Disconnect

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Q11) what is the Internet ? www ? what are uses of Internet in our daily life ?

Ans Internet — A global system of inter connected computer using a standardised Internet protocal suite for communication and sharing Information is called the Internet.

World wide web (www) — The world wide web . Commonly known as the web is an information system Enabling documents and is an Information system Enabling documents and other . web resources to be accessed over the Internet . Today the Internet has become unavaiable in our daily life . Appropreate use of the internet marks our life easily fast and simple the internet helps us . with facts and figures.

Imparlance of Internet technology for easy life.

1) Uses of the Internet in Education
2) Internet use to speed up daily ~~sp~~ tasks
3) Use of the Internet for Shopping
4) Internet for Research development
5) Business promotion and Innovation.
6) Communication.
7) Digital transactions
8) Money Management.

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Q12) what is an Internet Service provider? Give some Example of ISP in India.

Ans An ISP is a Company that provides Individuals and organisations access to the Internet and other related Services An ISP has the Equipment and the title communication line. Acess requirement to have a point of presence on the Internet for the geographic Area served

Example ISP In India

1) Airtel India
2) Beam fiber
3) Bharti Airtel
4) Bharti enterprices
5) BSNL Broad - Band
6) DEN Network
7) Idea calcutter
8) Jio
9) Mahanages telephones Nigam.
10) MTSM - Blaze
11) Sancharnet
12) siti cable
13) Spectranet
14) Spice ~~tell~~ telecom
15) Tata teleservices
16) Tikona Digital Network
17) Uninor
18) Videocon
19) Vodafone India
20) XOU Broad Band.

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Q13> Discuss the difference between MAC address. IP Address and port address.

Ans An IP address is 4 Byte identifies that identifies your Internet acess in a world wide unique fashion. It is like time address of your hause it is used by the internet router to deneliver a data Packet to your house In arabic numbers. IP Address (version 4 there is also a new standard version) are show as a b.cd where a.b.c and d are intigers. between 0 and 255.

A mac address is an identifies of your computer & network acess it is impoented by your Computers manufaction on the network card and is manufaction. Specific Mac address used to be unique to a device. But that is long gone. Strictly sheaking they are needed inside a local area network four divided delivery of a packet from one machine to another one directly conpected Inside a LAN they must be unique.

A port Address is an identifier (16 Bit, Integer up to 65535) that identifies the application on your machine to deliver the Packet received by the Analogy of the house address this is your or another persons name living

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in that house. So that the delivery can be completed.

Q14) How do we view my Internet browsers History?

Ans: Andoroid phone or tablet running google chrome.

1.) Open the google chrome Internet browser.

2.) In the upper right corners of the screen top the icon.

3) In the drop down menu that appears select history and shown in the image.

4) The page that opens contains your device's history.