Assignments - 2

Q.1 what are the different types of network?

Ans = **Network**

A Network Consists of two or more Computers that are linked in Order to Share resources (such as Printers and CDs) Exchange files, or allow electronic Communications. The Computer's On a network may be linked through Cables, Telephone lines, radio waves, Satellites, 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 Ho) Environment to office Communicate and

Share resources, data and applications either wired or wirelessly.

Local Area Network (LAN)

A local area Network (LA consists of a series of Computer linked together form a network in a Circumscribed location. The Computers in a LAN Connect to each other via TCP/IP ethernet or wifi A LAN TCP/IP is normally Exclu to an Organization Suc as a School office associat or church.

3. Wide area Network (WAN)

A wide area network (WAN) the technology that Connec and your Office. data Center Cloud applications and Clo Storage together. It is Call a wide area network becaus it Spans by and a Single building or large Campus

in include multiple locations Spread across a specific geographic area or even the world.

4. Wireless local area Network (WLAN)

A wireless LAN is a wireless Computer network that links two or more devices using wireless Communication to form a local area network (LAN) within a limited area such as a home, School Computer laboratory, Campus, or of office building.

5. Campus Area Network

A Campus network, Campus area network Corporate area network made up of an inter connection of local area network within a limited geographical area weekipedia.

6. Storage Area Network

A Storage area Network (SA
is a dedicated Network
tailored to a Specific envi
Combining Servers, Storage
System, networking Switch
Software and Service

Q.2 Explain the Shielded twisted Pair (STP) and unshielded twisted Pair (U.T.P)

Ans Shulded twisted Pair (STP)

Shulded twisted Pair (STP) is a Special kind of Copper telephone and local area network. (LAN) wiring used in some business Instead it adds an outer Covering or Shield that functions as a ground to ordenary twisted Pair wiring.

Unshielded twisted pair (UTP)

UTP is a ubiquitous types of Copper Cabling used in telephone wiring and local area network (LANs) there are five types of UTP Cables — edentified with the prefix CAT. as in Category each supporting a different amount of bandwith.

Q.3 what is difference between base band and broad band transmission.

Baise band

Broad band System use maudution techniques to reduce to Signal Codes like NRZ, RZ, mandchester, biphase — M code, etc called baseband transmission.

Broad board

Broad board

Baise baind

Baseband is digital Signal transmitted on the medium

using one of the Signal Cod
like NRZ, Rz manchester
biphase - M Code, etc. Called
baseband transmission.

Broad band

Broad band Syst
use moudulation
techniques to reduce the ef
of mise in the enuerooment
Broad band transmission
emplays multiple channel
unidirectional transmission
using a Combenation of Phase
and amplitude modulation.

These are the following differe
between Broadband and
transmission.

	Base band	Broad band
1.	Digital signalling	Analog Signaling
2.	frequency division	the transmiss of data

	Baseband	Broad band
1.	The baseband transmission the type of Signaling used is digital.	I am broad band transmission the type of Signaling use is analog.
2.	Baseband transmiss bidirection in nature	Broad band transmission is unedirection a in nature.
3.	The Signals a be sent in both directions	Sending of Signal in one detection only.
4.	It works well with bus topology	It is used with bus as well as true topology.
4.	when you mouse the NIC Cards from one Pc to another Pc does the MAC. address gets transpered as well.	

when you mouse the NIC Cards from One Pc to another Pc. does the MAC address gets transparred as well ? yes, thats because MAC addresses are hard wired into the NIc circuit not the Pc this also mean that a Pc can have a diffe MAC address when another One replaced the NIC Card

Q.5 when troubleshooting Compute not work problems what Common hard ware - relate Problems Can Occur ?

Ans. Most Common hardware relat Problems are Pa BX, LAN Card and wifi AP if wireless, Cables, Switches, Routers a wirless Controllers.

Most Problems are hardwar related a faulty Power Cabl or Power Supply unit, Som times RAM needs to b upgraded or VGA Cable is not properly Connected.

Q.5 In a network that Contains two Serwess and twenty work Stations, where is the best Place to install an Anti virus Program?

Ans An anti-virus Program must be installed on all Serwess and work Stations to ensure Plotection. That is because individual users Can access any workstation and introduce a Computer virus when Plugging in their removable hard drives or flash drives.

Q4 Define Static IP and Dynamic IP: Discuss the difference between IPv4 and IPV6

Ans Static Ip Address

A Static Ipaddress is expleicitly allocated to a dvice rather than one that a DHCP Serwer has assigned, Because it does not change, it is Called Static.

Static IP address can be configured on routers. Phones, tablets, desktops, laptops and any other device that can use an IP address

Dynamic IP Address.

An Dynamic IP address that you can use for a limited time If a dynamic Address is n't in use. it can be allocated to another device automatically DHCP or PPPOE are used to assign dynamic IP address.

Difference between Static and Dynamic IP Address.

	Static IP Address	Dynamic IP Address
1.	Internet Service Provider Is Provides the Static IP Address	DHCP is used generate dynamic IP Address
2.	Static IP Address does not get changed	Dynamic IP Address Can be changed

with time	any time.
Static IP Address is less Secured	Dynamic IP Address being volatite in nature is less risky
Device using Static IP Address Can be traced easily	Device Using Dynamic IP Address is to difficult to trace.

IPv4 is Compesed of 32-bit address length and is the fourth version of the Internet Protocol (IP-IPv6 is Compesed of 128-bet address lengh and is the latest up dated version of the Internet Protocal (IP)

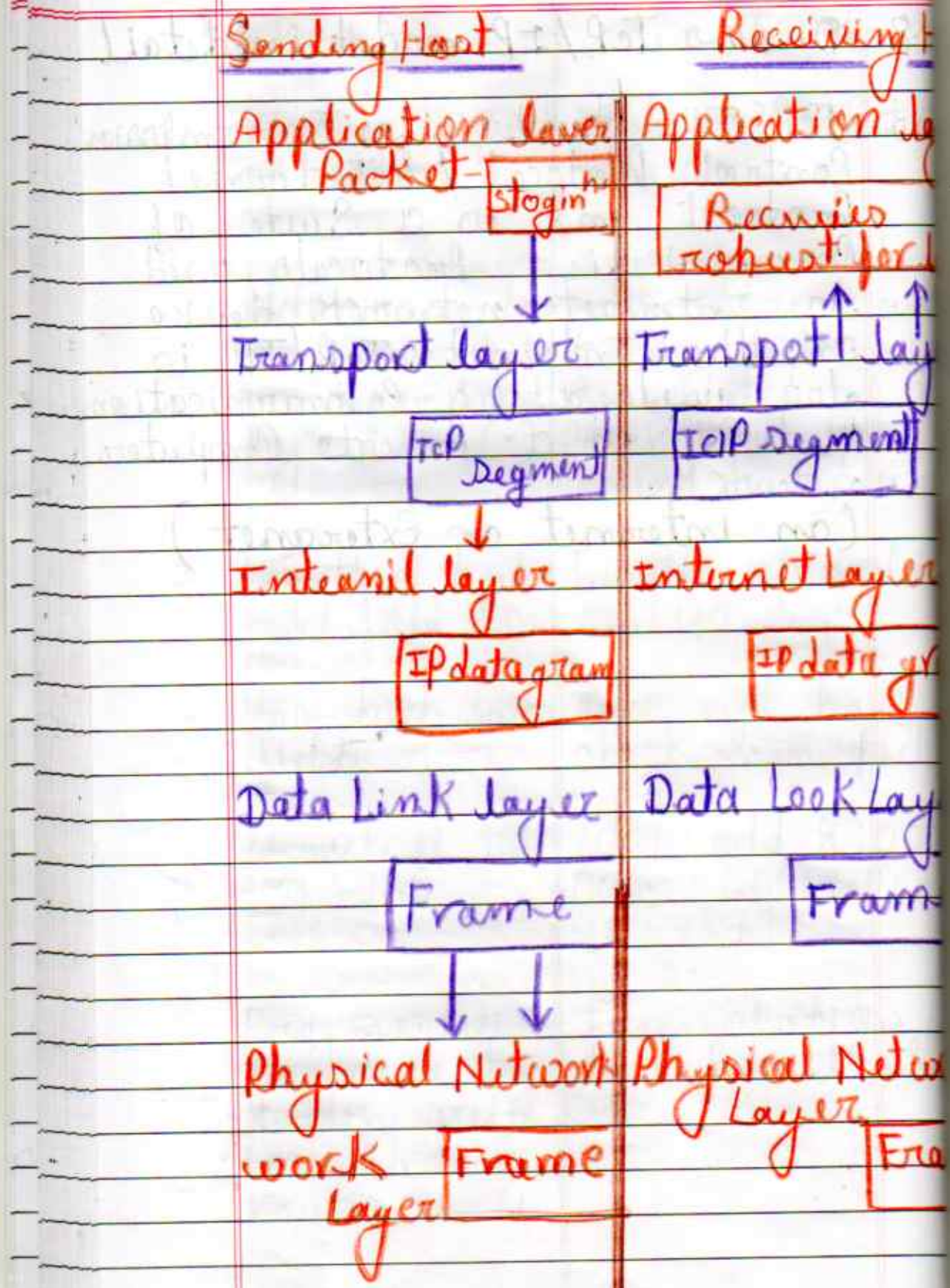
Difference between IPv4 and IPv6 Address

Here is the main difference between IPv4 and IPv6

	IPv4	IPv6
1.	IPv4 is a 32 Bit IP Address	IPv6 is 128 Bit address
2.	IPv4 is a numeric address and its binary bits are separated by a dot (.)	IPv6 is analphanumeric address where binary bits are separated by a colon (:) it also contains hexadecem
3.	Length of header filed 20.	Length of field 40.
4.	Has check Sum fields	Does not have check Sum field
	Example 12-224 233-165	2001 : add 8 : 000 0000 : 0000 : ff00 42 : 7879
	Fragmentation is done by Sending and Forwarding routes.	Framentation is done by the Se

Q.8 Discuss TCP/IP model in detail

Ans- TCP/IP Stands for Transmission Control Protocol / Internet Protocol and is a Suite of Communication Protocals used to Internet network device on the Internet. TCP/IP is also used as a Communication Protocol in a Private Computer network.
(an internet or Exteranet)



Q.4 what is a web Browser (Browser) give some examples of browsers.

Ans Web Browser.

A web browser is a software application that is used to access the world wide web (www) or as know 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 O.

Web Page.

The web browser can be called a client Program as it requests the webservers for the information demanded by the browsers. are Google, Mozilla firefox, Safari, internet, Explorer.

Netscape, Navigator etc.

There are 10 Examples of web Browsers. which are give below

1. Internet Explorer
2. Google chrome
3. Mozilla five fox
4. Safare
5. Opera
6. Kanguerar
7. Lynx
8. Tor Browser.
9. UC Brauser.
10. Brave Brouser.

Q 10 what is a Search Engine? give Example.

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, yahoo & MSN Search. Google is the most used Search Engine world wide with a 92 Percent market Share in mid - 2019. Google my be one of the most Popular Search Engines but there are many more

alternative Search Engines available for a users.

Top Search Engines alternat to Google.

1. Bing
2. Duck Duck Go
3. Ecosia
4.
5. wiki. Com
6. Ecosia
7. Yahoo
8. Swisscows
9. CC Search
10. Cubicu
11. Qwant
12. Yan Dex
13. Ask
14. Disconnect

Q.11 what is the Internet & WWW? what are uses o internet in our daily life

Ans Internet

A global System o inter Connected Computer usi a Standardised internet Protocal Suite for Communicat and Sharing information i 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 resauces to be accessed over the Internet.

Today the internet has became unavoidable in our daily life. Appropreate use of the internet marks our life easly 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 tasks.
3. use of the Internet for Shopping
4. Internet for Research & Development
5. Business Promation and Innovation.
6. Communication.

7. Digital transactions
8. Money Management.

Q-12 What is an Internet Service Provider? Give Some Examp of ISP in India.

Ans. An ISP is a Company that Provides individuals and Organizations access to the internet and other related Services An ISP ha the Equipment and the tite communication line. Acc requirement to have a Poi of Presence on the internet for the geographic area Serv

Example ISP in India.

1. Airtel India
2. Beam Fiber
3. Bharti Airtel
4. Bharti Enterprises
5. BSNL Broad-band
6. DEN Network
7. idea Cellular
8. JIO
9. Mahanagar telephone Nigam

10. MTSM - Blaze
11. Sancharnet
12. Siti Cable
13. Spectranet
14. Spece telecom.
15. Tata teleservices.
16. TiKona Digital Network.
17. uninor.
18. videocon
19. vodafone India
20. xoul Broad band.

Q.13 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 have it is used by the internet router to deliver a data Packet to your home 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 identifi
of your Computer & netwo
adds it is imposented b
your Computers manufactur
on the network card an
is menfuction. Specifec Ma
address used to be uni
to a devices. but that
long gone. Strutly Speaki
they are needed inside
local area network your
divided delevery of a Pack
from one machine to anot
one directly Connected Insi
a LAN they must be Uni

A Port address is an identif
(16 Bit, Integer up to 655
that identifies the applicat
on your machine to deli
the I. Packet received by th
network Card to. In the
analogy of the houses add
this is your or anothe
Person name living in th
house. So that the deli
Can be Completed.

Q.4 How do we view my internet browsers history ?

Ans. Android phone or tablet running google chrome.

1. Open the Google chrome internet browser.
2. In the upper right Cornes 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.