Most Important Topics

Module # 61

Networking And The Internet

Combining Networks

One of the biggest network of the world is internet.

Repeater

A repeater is also known as switch

Bridge:

A bridge also work like a repeater but here it is not important that they pass all the messeges across the construction.

Switch:

Switch combine the multiple connections and allow them to connect with several buses.

INTERNET:

It is a wide network. We can connect all over the world through internet.

OR

A wide network through which we can connect all over the world is called internet.

~~Through the network of internet we can connect~~ countries connect

Important

Module # 70
World Wide Web

Hypertext:
When all the documents linked together then they called hypertext.

First Document:
The first document was released in December 1990.

Module # 71
Web Implementations

When we enter the query in search bar, then many result show in a manners. This material is given us by some device which is known as browser.

Browser and Webservice, both are same things.

URL:
Uniform Resource Locator
In order to locate any document on a web page, each document have a unique address known as URL.

Routers

The device which provide the signals of internet are called routers.

OR

The device which connect us from network is known as router.

Working

The work of router is different from repeater, bridge and switches. Router provide a link between networks.

Forwarding Table:

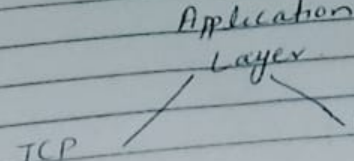
To connect a network from city to city or country to country, then router contain a algorithm which is known as forwarding table that contain the router knowledge.

Gateway:

The point at which one network is connect to an internet is often called gateway. Gateway serve as a passageway between the network and the outside world.

OSI

Open system Interconnection



These are two different protocal in a vast collection

UDB:

User Diagram Protocol

TCP:

In TCP data can also go and enter into ~~the~~ website

UDB:

UDB is a poor choice Here, data only send or recieve we can flow data on only one side

Hop Count:

One who prepare the packets, time to live known as hop count.

Module # 78 - 79
Layered Approach of Internet Software (II to III)

The application layer uses a transport layer to send and recieve a message through the help of Internet Network ~~Application~~ Layer decide a direction from where packet should be send at each.

Network layer decided a path for us, that we get a B data as ~~&~~ fast due to this our frequently

Port numbers are not related with IOP network

OR

A unique address assign ~~to~~ so ~~happy when we set~~ known as port number

Module # 80
IP/TCP Protocol Suite

IP

Internet Protocol

TCP

Transfer control Protocol

Module # 73

HTML

→ Tags

The sign of less than and greater than is called tags

→ HTML source section consist of two sections head and a body

< head > (For starting)

< / head > (For ending)

→ Tags are very important in HTML

→ HTML is a language in which we write programs and make websites

Some important tags.

< head >	→	< / head >
< body >	→	< / body >
< P >	→	< / P >
< h1 > heading	→	< / h1 > heading
< ol > list	→	< / ol > list

Important

Module # 66

Internet Application

NNTP

Network News Transfer Protocol

A news reader can get help from NNTP.

FTP

File transfer Protocol

Telnet Protocol

It is used to connect from pakistan to any other country. Mean If someone want to make connection from pakistan to Dubai, They can use Telnet protocol.

SSH

Secure shell protocol

HTTP

One of the most important protocal is HyperText Transfer protocol

Electronic Mail:

One of the oldest use of internet is electronic mail system.

Sending of messeges from one place to another is called e-mail

VOIP:

Voice Over internet protocol

P2P

It stand for peer-to-peer. In p2p all the client connect to the server and all the client also connect with the other client.

Module # 63

Networking And Internet

Distributed System

Distributed System

Such a system in which we distribute a network in every city, every country is called distributed system.

Cluster Computer:

It is a much larger machine which work independently with computer and provide a computation (means information of computer).

Grid Computing:

Grid computing perform a large task but less than a cluster computer

Cloud Computing:

The data provide to a client as they needed, is called cloud computing.

TLD:

It stand for top level domain Domain about education or edu. This suffix are called top level domain

DNS:

Domain Name System For internet what we use a widely name is DNS

OR

The name which we used widely for internet is known as Domain name system

DNS Lookup:

The process of using DNS to perfom a translation is called DNS lookup.

HTTP.

Hypertext Transfer Protocol

Hypertext documents are normally transfered b/w browser and webserver using a protocal known as HTTP

Module # 72
HTML

HTML :

It stand for hypertext markup language

HTML is a web page which describe information that a browser need. HTML help us to find all the related documents.

Tag :

Hypertext documents also contain a symbol, which is called tags.

Internet Multimedia Streaming:

An enormous portion of internet traffic is used for transporting audio and vedio across the internet in real time, known as streaming.

Module # 67
Internet Applications
E-mail

Messeging Applications
Instant messeging
Browser based chatting
Twitter based tweets.
Facebook wall
One of oldest is e-mail

Protocol
SMTP
Simple mail transfer protocol

MIME
Multipurpose internet mail extension

Important

Module # 65

Networking And Internet

Internet Addressing

IP Address

Every device need a unique address In the internet, these adresses are called IP address Normally or generally, IP address can be written in 32 bits but modern IP address can be written in 128 bits.

ICANN :

It stand for internet corporation for Assigned names and nmbers.

Dotted Decimal Notation :

IP addresses are traditionally written in decimal point notation

1 byte = 8 bit

Domain :

When we create any system or region for a specific object, are called domain

Register :

When we store our data temporarily in a RAM, is stored in ~~earlier~~ register.

Module # 77
Layered Approach To Internet Software

We can make connection with any part of world due to the internet.

Application Layer:
A message which we type originate in application layer.

Transport and Network layer:
When we send a message, we must need a transport layer to send a message from one place to another.

Link Layer:
Finally, when we transmit our message, then a link is generate. It is known as link layer.

There are basically four layers.

Application
↓
Transport
↓
Network
↓
Link

Module # 69

Internet Multimedia Streaming

N Unique:

A technique through which we can send audio, radio from a audio station is called N-unique.

Multicast:

A technique through which We can send a billion of messeges and also recieve at a same time is called multicast

On-Demand Streaming:

The data which we get on our demand is called on-demand streaming.

CDNs:

Content Delivery Network.

Module # 64
Networking And Internet
Internet Architecture

→ ISP

ISP stood for internet service provider.
When all the network collect at a one point, then they known as Internet Service provider

Tier - 1 - ISP

It consist of very high-speed, high capacity and international WANs These networks are thought as the backbone of internet

Tier - 2 - ISP

It have less poteed in their capabilities.

Tier - 3 ISP.

We can access on — everything through the help of internet

HOST :

When we connect the ISPs to with an computer through which we can communicate is called Host or end system

If we use a tag in the start, so, you must have a need to close the tag

XTML

If we want to represent a music in a text file. For this purpose we use a language which is known as XTML
Markup Language.

Markup language have been developed for representing a mathematic, multimedia presentations and music.

We use tags to get a accurate result of demanding query.

Module # 76
Client Side And Server Side

Client Side:

The data which we get from a browser is called client.

Server Side:

Those activities which are performed by a server are called server.

PHP stand for Personal Home Page.

Module # 74
More On HTML

Here, we get some information about HTML tags that How they used

Example

If we want to bold our word we put the below sign.

<b>

After putting this into browser we can see our result

Module # 75
XML

XML

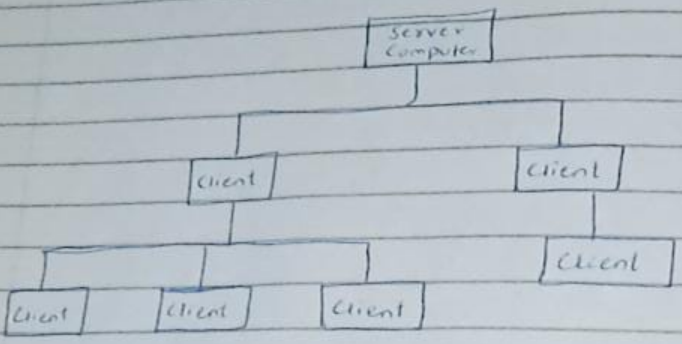
eXtensible Markup Language

HTML is essentially a notational system by which text documents can be encoded as a simple file text. In a similar way, we can also encoded text documents as well as non-text documents.

Module # 62
Networking And Internet
Methods of Process Communication

→ Server model :

Those model which have a good RAM, ROM and processor are known as server model



→ Client :

Those computers which are connected to a server computer are called client

Print Server

A printer attached to the network play a role of print server

File Server

The machine which contain the record as they needed are known as file server

PAN (Personal area network.

Access Point : (AP)

Module # 60
Protocols

Some rules are established by which we conducted the activities of computer. So such rule are called protocols.

Introduction To Computer

Computer:

The literal meaning of the computer is;

"The device which we can use for calculation"

But modern computer can do a lot more than calculation. The defination of modern computer is;

"Computer is an electronic device that recieve input, processes the input as instructions given by the user and provided output in desired format."

One another defination of computer is;

"A computer is a general purpose machine which can perform many computational task"

Now, the modern days computers that we have, can perform billions or trillions of calculation within a fraction of second.