

**Foundation Course-5
2017-2018**

**INFORMATION & COMMUNICATION TECHNOLOGY –2
(ICT-2)**

**Internet Fundamentals and Web Tools
Common for BA / BCom/ B Sc / BBA Programmes III Semester
(30 Hours of Teaching Learning including Lab)**

Unit-I :

Fundamentals of Internet: Networking Concepts, Data Communication –Types of Networking, Internet and its Services, Internet Addressing –Internet Applications–Computer Viruses and its types –Browser –Types of Browsers.

Unit-II:

Internet applications: Using Internet Explorer, Standard Internet Explorer Buttons, Entering a Web Site Address, Searching the Internet– Introduction to Social Networking: twitter, tumblr, LinkedIn, facebook, flickr, skype, yelp, vimeo, yahoo!, google+, youtube, WhatsApp, etc.

Unit-III :

E-mail :Definition of E-mail -Advantages and Disadvantages –UserIds, Passwords, Email Addresses, Domain Names, Mailers, Message Components, Message Composition, Mail Management,Email Inner Workings.

Unit IV:

WWW-Web Applications, Web Terminologies, Web Browsers,URL–Components of URL, Searching WWW –Search Engines and Examples

Unit-III :

Basic HTML: Basic HTML –Web Terminology –Structure of a HTML Document –HTML, Head and Body tags –Semantic and Syntactic Tags –HR, Heading, Font, Image and Anchor Tags –Different types of Lists using tags –Table Tags, Image formats –Creation of simple HTML Documents.

Reference Books :

1. In-line/On-line : Fundamentals of the Internet and the World Wide Web, 2/e -by Raymond Greenlaw and Ellen Hepp, Publishers : TMH

UNIT-1

Fundamentals of Internet: Networking Concepts, Data Communication –Types of Networking, Internet and its Services, Internet Addressing –Internet Applications– Computer Viruses and its types –Browser –Types of Browsers.

Fundamentals of internet

→Data communication:

- Data communication is nothing but the exchange of data between two devices.
- Communication devices must be part of communication system.
- It is made up of a combination of software and hardware.
- Characteristics are delivery, accuracy, timelines and jitter.

Delivery: The system must deliver data to the correct destination

Accuracy: The system must deliver the data accurately.

Timelines: The system must deliver data in a timely manner

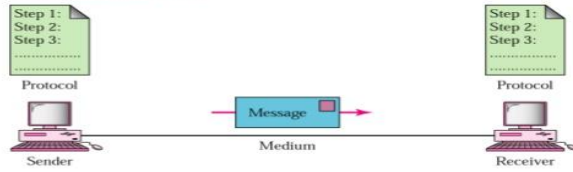
Jitter: Jitter refers to the variation in the packet arrival time.

COMPONENTS OF DC:

A data communication system has five components. They are:

1. **Message:** The message is the information to be communicated.
2. **Sender:** The sender is the device that sends the data.
3. **Receiver:** The receiver is the device that receives the message.
4. **Transmission medium:** The transmission media is the physical path by which a message travels from sender to receiver.
Ex: Transmission media include twisted pair, wire, coaxial cable, fiber optic cable and radio waves.
5. **Protocol:** A protocol is a set of rules that govern data communications.

Five Components of Data Communication



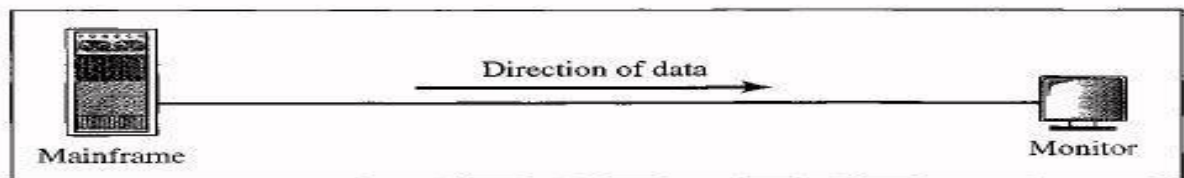
1. Message
2. Sender
3. Receiver
4. Medium
5. Protocol

4

Data flow: Communication between two devices can be simplex, half-duplex or full-duplex.

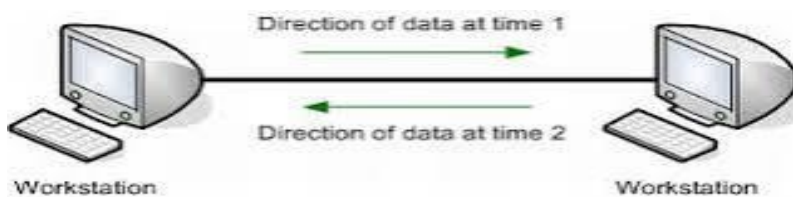
Simplex: In simplex mode the communication is unidirectional as on a one way street only one device can transmit

Ex: keyboards.



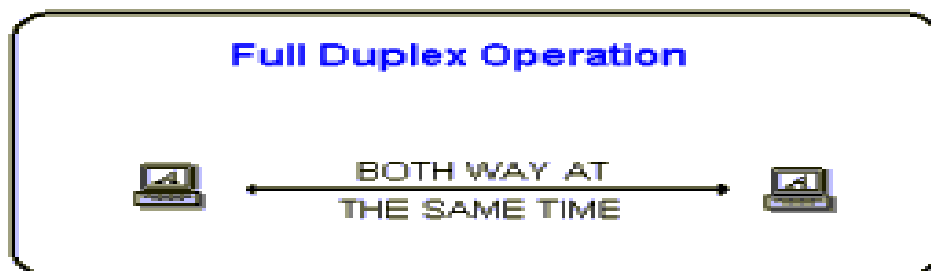
Half-duplex: In half-duplex mode each station can both transmit and receive but not at the same time.

Ex: A one lane road



Full-duplex: In full-duplex mode both stations can transmit and receive simultaneously.

Ex: A two way street



→ Basic Concepts of Computer Networks:

Definition of Communication: It describes a process in which two or more computer or devices transfer data, instructions and information.

The Importance/Advantage of Computer Networks Sharing of devices such as printer and scanner Sharing of program/software Sharing of files, Sharing of data Sharing of information, Sharing of single high-speed internet connection Can access server centered database Better communication using internet services such as email, mailing list and Internet Relate Chat (IRC)

→NETWORK:

- A network is a set of devices or collection of nodes.
- **Network criteria:** The most important of these are performance, reliability and security.
- **Performance:** Performance can be measured in many ways including transit time and response time. Transit time is the amount of time required for a message to travel from one device to another. Response time is the elapsed time between an inquiry and a response.
- **Reliability:** Accuracy of network.
- **Security:** Network security issues include protecting data from unauthorized access.

NETWORK COMPONENTS:

- Networking components are 7 types that include:
 1. **Hubs:** are used in networks that use in twisted pair cabling to connect a device. It transmit the packet to other connection devices without changes.
 2. **Switches:** switch transfer data only to that part which is connected to the destination device. Switches operate in full duplex mode where as hubs works sending the data to all ports on the device.
 3. **Bridges:** A bridge is a computer networking device it connects the different networks together and develops communication between them.
 4. **Rooters:** When a rooter receives the data it find the destination by reading the packet reader then it reaches in rooting table to know how to reach the destination and then it forwards.
 5. **Brouters:** It is the combination of both bridges and routers.
 6. **Gate way:** Gateway is a device which is used to connect multiple networks and passes packets from one packet to other networks.

7. **Modem:** It converts the digital signal into analog signals to enable their travelling via phone lines.

→TYPES OF NETWORKS:

- There are many ways in which different networks can be classified, such as their size, capabilities and the geographical distance they cover.
- A network is simply a group of two or more computer systems linked together to share the data.

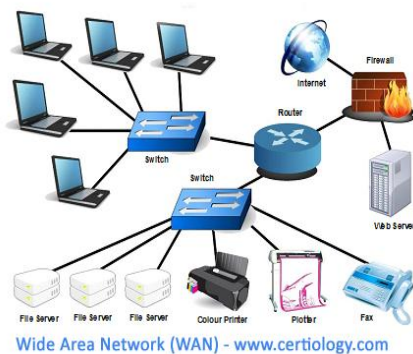
LOCAL AREA NETWORK (LAN):

- LAN network connect computers together over small distances, such as within a single building or within a small group of buildings.



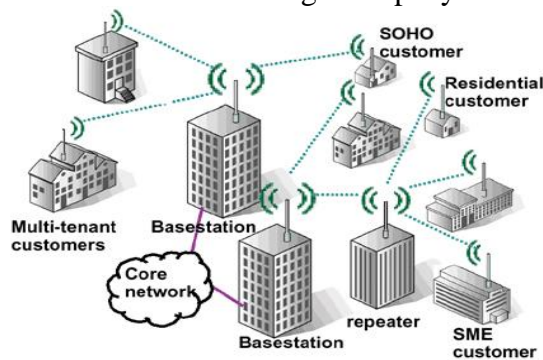
WIDE AREA NETWORK (WAN):

- WAN connect computers together over large physical distances, The Internet is a WAN, and connects computers all around the world together.
- LANs connect to WAN's, such as the internet, using routers to transfer data and information quickly and securely.



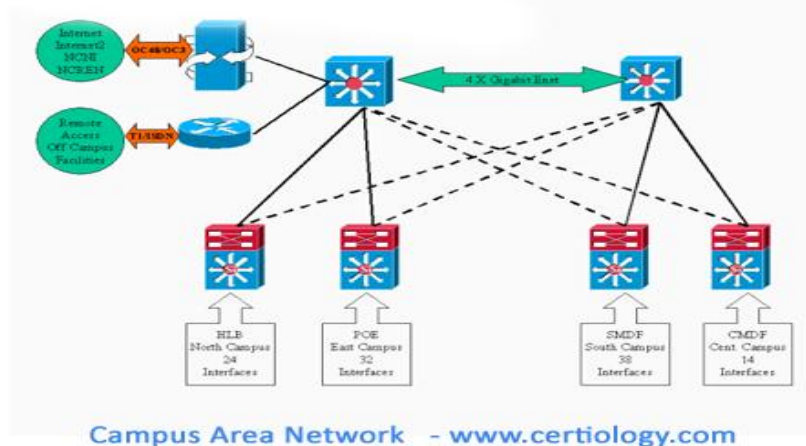
METROPOLITAN AREA NETWORK:

- This is a network which is larger than a LAN but smaller than a WAN, and has both features.
- It typically spans a town or city and is owned by a single person or company, such as a local council or a large company.



CAMPUS AREA NETWORK:

- This is a network which is larger than a LAN, but smaller than an MAN.
- This is typical in areas such as a university, large school or small business.



→INTERNET AND ITS SERVICES:

It is a network of networks or inter connected computer networks.

SERVICES: Important services of the internet are

1. World Wide Web:

- This also called web or www.

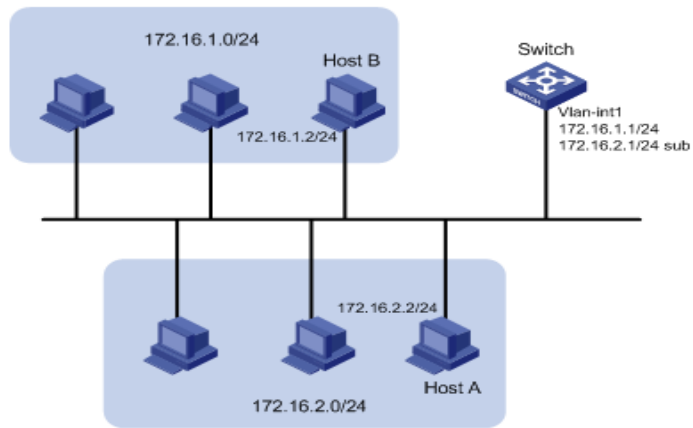
- The collection of all web pages.
 - Those web pages provide a information in the form of text, pictures and audio.
2. **E-mail:**
- E-mail stands for electronic mail. It is most popular fastest mailing service.
 - We can send and receive messages is seconds.
3. **News groups:**
- They are discussion groups on internet.
 - They are used for free exchange of information.
4. **E-commerce:**
- It stands for Electronic commerce.
 - Buying and selling can be done through internet. Ex: online shopping and banking.
5. **FTP:**
- FTP stands for file transfer protocol. It can be used to transfer files easily.
 - Multimedia files can be uploaded and downloaded using FTP.
6. **Telnet:**
- It is used to access remote computer.
7. **Chat:**
- Two or more users can live chat with each other.
8. **Gopher:**
- Gopher is used to search for files via menus.

→INTERNET ADDRESSING:

- An internet address uniquely identifies a computer on the internet.
- It may also referred to the name or IP address of a website.
- Format of IP address is a 32 bit numeric address written as 4 numbers separated by dots.

Ex: 1.160.10.240

- 4 numbers in an IP address are used in different ways to identify a particular network and a host on that network.



Three classes of IP address:

Class A: supports 16 million hosts on each of 126 networks

Class B: supports 65 thousand hosts on each of 16 thousand networks.

Class C: supports 254 hosts on each of 2 million networks.

→BROWSER AND TYPES OF BROWSERS:

- Browser is a software application that is used to search, retrieve, display the content of the web.

Types of web browser:

INTERNET EXPLORER:



It is a product of Microsoft and it was introduced in 1995. It is the most commonly used web browser.

GOOGLE CHROME:



It is a product of google and it was introduced on 2008.

MOZILLA FIREFOX:



It is a new browser derived from Mozilla and it was released on 2004.

SAFARI:



It is developed by apple company and it was introduced in the year 2003. **Apple Safari** is a Web browser available for the Macintosh and Windows operating systems as well as the iPhone, iPod Touch and iPad. **Safari** has been designed based on the premise that the most useful browser is one that "gets out of your way and lets you simply enjoy the Web."

OPERA:



It is faster than more other web browsers and it is full featured browser.

LYNX:



Lynx is a fully featured web browser for users on unix.

→VIRUS AND ITS TYPES

- It is a malicious program .It can infect other programs by modifying them.
- When executing the infected programs it can anything such as deleting files,deleting programs.

PHASES OF VIRUS:

1. **DORMANT PHASE:** - This virus is idle .It will be activated when infected program is executing.
2. **PROPOGATION PHASE:** - The virus places identical copy of itself into other programs.
3. **TRIGGERING PHASE:-**The virus is activated to perform the function for which it was designed.
4. **EXECUTION PHASE:-**the function is performed. The function may be harmless, such as messages on the screen.

→TYPES OF VIRUS:-

1. **Parasitic Virus:** it is a common form of virus. It attaches a copy of itself into other programs and then it replicates when executing them.
2. **Memory Resident Virus:** It resides in main memory. From that point on the virus infects every program in memory.
3. **Boot Sector Virus:** Infects a master boot record and spread it when system is booted.
4. **Stealth Virus:-**This virus is explicitly designed to hide itself from detection by anti-virus.
5. **Macro Virus:** It was virus designed to infect Microsoft word documents.
6. **E-Mail Virus:** It is a recent development virus. This is activated by opening an e-mail.

1. A communication path way that transfers data from one point to another is called

- A. Link
- B. Node
- C. **Medium**
- D. Topology

2. Search engine which is most popular in China is

- A. yahoo
- B. bing
- C. google
- D. baidu**

3. Protocol which assigns IP address to client connected in internet is

- A. DHCP**
- B. IP
- C. RPC
- D. HTML

4. Symbol which is written immediately after mail to keyword in href attribute of anchor tag is

- A. semicolon
- B. hash
- C. colon**
- D. comma

5. Computer jargon, WWW stands for

- A. world wide web worm**
- B. world wide wildlife web
- C. world wide women's web
- D. world wide women's week

6. Search engines are used to

- A. search video
- B. search documents
- C. download softwares
- D. all of these**

7. Website which is used to search other website by typing a keyword is

- A. social network
- B. search engine**
- C. router
- D. search page

8. Internet which is accessed by transmitting digital data over wires of a local telephone network is provided by

- A. leased line
- B. digital subscriber line**
- C. digital signal line
- D. land line

9. Paid advertisement in form of a hypertext link that shows up on search result pages, is

- A. sponsored link**
- B. nonsponsored link
- C. hypertext link
- D. paid link

10. A computer on internet is identified by

- A. email address
- B. street address
- C. IP address**
- D. server address

11. Search results are generally presented in a line of results often referred as

- A. tag list
- B. search engine results pages**
- C. search engine pages
- D. category list

12. Voice mail, email, online services, internet and WWW are examples of

- A. computer categories
- B. connectivity
- C. telecommuting**
- D. information technology

13. Free of cost repair of software bug available in internet is called

- A. version
- B. ad-on
- C. tutorial
- D. patch**

14. In computer, URL means

- A. address of resource on web**
- B. term used to describe website
- C. term used to get online program
- D. term used to connect computers

15. Anonymous file transfer is best used for

- A. distributing freeware**
- B. distributing email
- C. file compression
- D. distributing groupware

16. IPv6 addressed have a size of

- A. 32 bits
- B. 64 bits
- C. 128 bits**
- D. 265 bits

17. Search engines maintain heavy database of

- A. keywords
- B. URLs
- C. web pages
- D. all of these**

18. User can get files from another computer on internet by using

- A. HTML
- B. HTTP
- C. UTP
- D. FTP**

19. Whenever crawler crawls website then any page that don't have a link is called as

- A. dead end page**
- B. absolute page
- C. home page
- D. door way page

20. Verification of a login name and password is called

- A. configuration
- B. accessibility
- C. authentication**
- D. logging in

21. We can get list of sites after typing a word in search bar called

- A. directory
- B. single word
- C. key phrase**
- D. sentence

22. Another name of internet is

- A. virtual space
- B. data space
- C. information space
- D. cyber space**

23. Web search engines stores information about many web pages with help of

- A. web indexer

- B. web crawler**
- C. web organizer
- D. web router

24. Internet works on

- A. packet switching**
- B. circuit switching
- C. signal switching
- D. data switching

25. Server on internet is also known as

- A. hub
- B. host**
- C. gateway
- D. repeater

UNIT –II

Internet applications: Using Internet Explorer, Standard Internet Explorer Buttons, Entering a Web Site Address, Searching the Internet– Introduction to Social Networking: twitter, tumblr, Linkedin, facebook, flickr, skype, yelp, vimeo, yahoo!, google+, youtube, WhatsApp, etc.

→Internet Explorer (IE):

Internet Explorer (IE) is a World Wide Web browser that comes bundled with the Microsoft Windows operating system (OS).

Use of Internet Explorer (IE):

- Internet browsing software manufactured by Microsoft Corp. and included on computers with their Windows operating system.
- This software allows users to view and navigate web pages on the Internet.
- Internet Explorer is the most **widely** used browser in the world.

→Applications of internet:

The internet is treated as one of the biggest invention. It has a large number of uses.

1. Communication
2. Job searches
3. Finding books and study material

4. Health and medicine

5. Travel

6. Entertainment

7. Shopping

8. Stock market updates

9. Research

10. Business use of internet: different ways by which internet can be used for business are:

- Information about the product can be provided online to the the customer.
- Provide market information to the business
- It help business to recruit talented people
- Help in locating suppliers of the product.
- Fast information regarding customers view about companies product
- Eliminate middle men and have a direct contact with contact with customer .
- Providing information to the investor by providing companies back ground and financial information on web site.

→Standard Internet Explorer Buttons:

The following are the **6 Internet Explorer toolbars** that you will see if you are using Internet Explorer as your browser. Each of the toolbar has their own purpose and usage.

Internet Explorer is one of the simplest applications on the planet to use, requiring only three or four buttons to operate most of the necessary functions.

1) Title bar

- Display at the top of the screen (normally in blue color) and displayed the title of the program that you are currently running.

2) Menu bar

- Underneath the **Title Bar** and consists of a group of pull-down menus - File, Edit, View, Favorites, Tools, and Help that you can click to reveal a list of options and submenus.

3) Standard Buttons bar :

Favorites button:

- Favorites are Web sites you have visited that you would like to store for easy access.
- You can add, delete and organize your Favorites.

History button:

- The history function allows you to view and select Web pages you have visited within the last 20 days.
- You can sort your items by clicking on the black triangle to the right of the word **View**.
- You can sort by size, date, the number of times visited, and the order you have visited today.

Mail button:

- You can read email from this window.
- Choose the email software you wish to use by going back to the **Menu Bar** and choosing **Tools/Internet Options/Programs**.

Print button: Allows you to print the current page.

Edit button:

- You may edit the current page in the HTML editor of your choice.
- Choose the editor by going back to the **Menu Bar** and choosing **Tools/Internet Options/Programs**.

Discuss button: You may set a default Usenet newsgroup server.

4) Address Bar

- Below the **Standard Buttons** bar and shows you the URL of the Web page currently displayed in the Internet Explorer browsing area.
- If you know the address of a web site you want to visit, type the URL in the **Address Bar** and then press **Enter**.

5) Links Bar

- Beside the Address Bar (right-hand end). If the Links bar is hidden by the Address bar, double-click the word **Links** to reveal the full **Links bar**.
- This button contains a drop-down list of shortcuts to various Microsoft Web pages. To add a Quick Link button for the Web page that you're currently viewing, drag its Web page icon (the icon that precedes the URL in the Address bar) to the place on the Links bar where you want the Quick Link button to appear.
- To remove a button from the **Links bar**, right-click the button and choose **Delete** from the shortcut menu.

6) Status Bar

- Provides information on your whereabouts as you travel the Web and also the status of IE as it performs its functions.
- Normally when a page is loaded successfully, it will display the word **Done** in the most right-hand side of the status bar.

→ENTERING A WEBSITE ADDRESS:

- In order to enter the web address we need to find the address bar at the top of the page.
- Type the address into that bar and then press the enter button to go directly to the website.
- Then we can easily search the required information on that site.
- Address is in the form of <http://www.gmail.com>.
 - ✓ http is protocol name(hyper text transfer protocol).
 - ✓ www is a host.
 - ✓ gmail is a domain name.
 - ✓ com is a commercial site.

→SEARCHING THE INTERNET:

- Following steps are used to search the internet.
 1. Select a search engine. Ex: google, yahoo.
 2. After typing whatever we need to search press enter key on the keyboard.
 3. Access your results.
 4. If we find the required result we can access the data otherwise repeat the above steps as necessary.

→INTRODUCTION TO SOCIAL NETWORKING:

- Social networking on social media websites involves the use of the internet to connect users with their friends and family.
- The most well known social media websites are twitter, tumblr, face book, Skype, YouTube, what's app etc.

TWITTER:



- Twitter is an online networking service that enables users to send and read short 140 characters message called “tweets”.
- Registered users can read and send short 140character messages called **tweets**.
- Unregisterd users can only use.

FACEBOOK:-



- This is online social networking service.This website was launched on 2004.
- First of all the users can create a profile on this website.
- Then automatically add other users as friends and exchange messages,photos,updates and share vedios.

SKYPE:



- It is a social networking site that provides video chat and voice chat and video conference calls.
- Skype is available for windows, android, blackberry, apple and tablets.

YOUTUBE:



- You tube is an online public communication site .
- This site allows users to upload and have available for the public their videos for viewing.

WHATSAPP:



- What's App is a mobile-messaging app which allows you to exchange messages without having to pay for sms.
- What's app messenger is available for Iphone, Blackberry, Android, Windows, Nokia etc.

TUMBLR:



- This service allows users to post multimedia.

FLICKR:



- It is an online storage for our digital photos.
- We can disable other people to see our photos.

- 1 The _____ is the physical path over which a message travels.
- a. Protocol
 - b. Medium
 - c. Signal
 - d. All the above

- 2 The information to be communicated in a data communications system is the _____.
A. Medium
B. Protocol
C. Message
D. Transmission
- 3 Frequency of failure and network recovery time after a failure are measures of the _____ of a network.
Performance
Reliability
Security
Feasibility
- 4 An unauthorized user is a network _____ issue.
A. Performance
B. Reliability
C. Security
D. All the above
- 5 Which topology requires a central controller or hub?
A. Mesh
B. Star
C. Bus
D. Ring
- 6 Which topology requires a multipoint connection?
A. Mesh
B. Star
C. Bus
D. Ring
- 7 Communication between a computer and a keyboard involves _____ transmission.
A. simplex
B. half-duplex
C. full-duplex
D. automatic
- 8 A television broadcast is an example of _____ transmission.
A. simplex
B. half-duplex
C. full-duplex

D. automatic

9 A _____ connection provides a dedicated link between two devices.

- A. point-to-point
- B. multipoint
- C. primary
- D. secondary

10 In a _____ connection, more than two devices can share a single link.

- A. point-to-point
- B. multipoint
- C. primary
- D. secondary

11 In _____ transmission, the channel capacity is shared by both communicating devices at all times.

- A. simplex
- B. half-duplex
- C. full-duplex
- D. half-simplex

12 In the original ARPANET, _____ were directly connected together.

- A. IMPs
- B. host computers
- C. networks
- D. routers

13 This was the first network.

- A. CSNET
- B. NSFNET
- C. ANSNET
- D. ARPANET

14 Which organization has authority over interstate and international commerce in the communications field?

- A. ITU-T
- B. IEEE
- C. FCC
- D. ISOC

15 _____ are special-interest groups that quickly test, evaluate, and standardize new technologies.

- A. Forums
- B. Regulatory agencies
- C. Standards organizations

D. All of the above

16 Which agency developed standards for physical connection interfaces and electronic signaling specifications?

- A. EIA
- B. ITU-T
- C. ANSI
- D. ISO

17 _____ is the protocol suite for the current Internet.

- A. TCP/IP
- B. NCP
- C. UNIX
- D. ACM

18 _____ refers to the structure or format of the data, meaning the order in which they are presented.

- A. Semantics
- B. Syntax
- C. Timing
- D. All of the above

19 _____ defines how a particular pattern to be interpreted, and what action is to be taken based on that interpretation.

- A. Semantics
- B. Syntax
- C. Timing
- D. None of the above

20 _____ refers to two characteristics: when data should be sent and how fast it can be sent.

- A. Semantics
- B. Syntax
- C. Timing
- D. none of the above

21 Data flow between two devices can occur in a _____ way.

- A. Simplex
- B. half-duplex
- C. full-duplex
- D. all of the above

22 In a _____ connection, two and only two devices are connected by a dedicated link.

- A. Multipoint

- B. point-to-point
- C. (a) and (b)
- D. none of the above

23 In a _____ connection, three or more devices share a link.

- A. Multipoint
- B. point-to-point
- C. (a) and (b)
- D. none of the above

24 _____ refers to the physical or logical arrangement of a network.

- A. Data flow
- B. Mode of operation
- C. Topology
- D. None of the above

UNIT-III

E-mail: Definition of E-mail -Advantages and Disadvantages –UserIds, Passwords, Email Addresses, Domain Names, Mailers, Message Components, Message Composition, Mail Management, Email Inner Workings.

EMAIL

→DEFINITION OF EMAIL:

- E-mail stands for electronic mail
- E-mail is used to send or receive information from one place to another

ADVANTAGES:

1. Convenient : it is very easy to send mails
2. Speed : it is very fast in communication
3. In expensive : it is very fast in communication
4. Printable : we can take print out of the mail easily
5. Reliable : mails are stored for a long time in our system
6. Global : we can send email anywhere in the world

DISADVANTAGES:

1. Mis direction : if the mail id is not entered properly there is a chance of sending mail to unknown persons
2. Junk : un wanted emails come under junk mails

USER ID, PASSWORD & EMAIL ADDRESS:

1. User id :
 - User id is user identification and user name.
 - It is combination of letters & number
2. Password :
 - Password is a secret code that helps to check if the user is authorised (or) not.
3. Email address :
 - The basic form of email is user name @ hot name .sub domain. domain
 - username is name of the person
 - @ is at
 - . is pronounced as period
 - It is nothing but address used to identify web pages.
Ex: venkat123 @ gmail.com

DOMAIN NAME:

- Domain names are used in URL to identify the web pages.
- DNS means Domain Name Space.
- These are 7 major top level domains that include com,edu ,gov , int , mil , net , and org.
- A domain name is separated by dots.
Ex:www.google.com
- Some domain names are

- 1) Com - commercial business
- 2) Edu – education
- 3) Gov – government agency
- 4) Net - network organization
- 5) Int - international organization
- 6) Org – non profit organization

MAILERS:

- It is a feature that allows us to read & compose mails
- Mailer contains options like compose , copy , delete , forward etc

COMPOSE, FILE &REPLY :

- The compose has the following features
 - New : to write a new mail
 - Reply : to reply for the current message
 - Forward : to pass the message
- The file has the following features
 - Save : to save the message
 - Insert : to attach photos , videos etc
 - Exit : to leave
 - Open : to open a mail
- The reply button has the following features
 - To sender
 - To all
 - Forward

MESSAGE COMPONENTS :

- These components include :
 - date
 - size(bytes)
 - sender name
 - subject line
- A simple email is as follows:

From

Date

To

Subject

Cc:

Greeting:

This is the marks list of 3rd Bscmp computes
Please verify it.
Thanking you ,

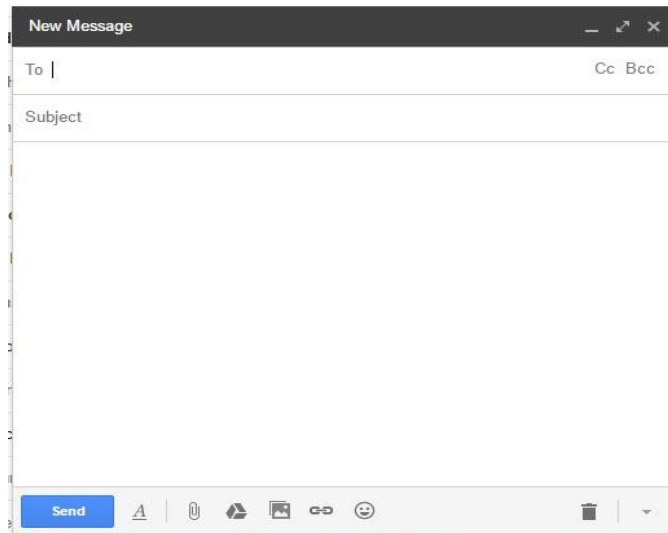
SEND	A	<input type="text"/>
------	---	----------------------

The first five lines are called mail headings

- 1) the from field tells us who sent the mail
- 2) the date field tells us when we got the mail
- 3) the to field tells us where to send the mail
- 4) the subject field tells us what is the message about
- 5) cc field is carbon copy helps to send same mail to multiple persons

MESSAGE COMPOSITION :

- To compose a mail we have to click on the compose mail option in the mailer
- It is denoted as follows



- **TO** : It is place to enter the senders address in mail id
- **SUBJECT** : Contains description of letter
- **CC** : It is called carbon copy in which we can enter other persons mail id
- **ATTACH** : It denoted with used to add pictures , sounds etc to our mail
- **SEND** : This helps us to send the mail by just clicking on that option

EMAIL INNER WORKING :

- It is managed with three phases. they are
 - 1) **Mailer** : used to send and receive mails
 - 2) **Mail server** : used to receive the letter & check if the letter is posted correctly or not & send it to proper address
 - 3) **Mail box** : the letter is placed in mail box & the receiver opens & read the mail
- The mail box is identified by their mail id's .

STORE AND FORWARD FEATURE :

- When an email comes , it is saved in the inbox until it is read
- The Post Office Protocol (POP) retrieves the email from the remote location
- A protocol is a set of rules that are used for communication
- The mail transfer is done with the help of SMTP i.e(Simple Mail Transfer Protocol)
- IMAP is Interactive Mail Access Protocol that provides security to our mail.

BOUNCE FEATURE:

- If the email is not delivered we get a failure notice & this is called bounce feature

- If the mail id is not entered properly the mail bounces back

EMAIL MANAGEMENT :

- Email is a network with multiple number of users
- Some important points about email are
 - 1) When we get a mail it is placed in the inbox
 - 2) Any number of mails can be placed in the inbox
 - 3) There are number of options in dealing with messages .
 - 4) They are
 - a. If the mail is not relevant we can delete it
 - b. We can see the sender name & decide if to read mail or not

VACATION PROGRAM :

- This program used in the absence of user
- It is a program that automatically replies to our mail
- It sends a brief reply to each message that is being received
- One point to remember for a vacation program the reply must contain the details of whom to contact in our absence.

1. What's the name for the program or service that lets you view e-mail messages?

- A. Web browser
- B. E-mail clients
- C. The Tardis

D. Outlook Express

2. Which of the following is considered to be poor e-mail etiquette?

- A. Keeping the message personal
- B. Responding to messages as soon as possible
- C. Using lots of capital letters to emphasize certain words

3. The tone of a professional email message should be:

- A. Conversational.
- B. Formal.
- C. Casual – like the tone you use with friends.
- D. "Yo, dude! Whassup?"

4. What is the most important thing I should do with every e-mail?

- A. Spell check, use full sentence structure and use proper grammar.
- B. Have a nice greeting: Hi, Hello, etc.
- C. Have a proper sign off: TIA, Sincerely, etc.
- D. All of the above.

5. When writing an email message, paragraphs should:

- A. Be long.
- B. Be short.
- C. Be indented.
- D. Be invisible – no one can mess it up that way.

6. The best way to make several points in an email is:

- A. Include all the points in the first paragraph.
- B. Include all the points in the last paragraph.
- C. Use lists with bullets or numbers.
- D. Put it on a banner and rent an airplane to fly over the office pulling the banner.

7. At the end of an email message, you should include:

- A. Only your name.
- B. Only your name and company.
- C. All your relevant contact information.

D.A picture of your pet python and twin tarantulas.

8. Before sending a very large attachment, I should:

- A. Just attach it and send it.
- B. Send it first thing in the morning and call to make sure it was received.
- C. Send it during week days.
- D. Compress the file, then ask first when would be the best time to e-mail it.

9. When sending a message, you should copy ("cc"):

- A. Everyone in the department – just in case.
- B. Your boss and your boss' boss – so they know that you're working hard.
- C. Only those people who absolutely need to know.
- D. The whole world. Why not? Everyone else does.

10. I should only forward e-mail when:

- A. I feel it's important.
- B. I know the other person should have the information.
- C. The topic is commendable and important to all onliners.
- D. I type a personal comment about why I am forwarding that specific e-mail to that specific person.

11. Free of cost repair of software bug available at Internet is called ♦.

- [A.](#) Version [B.](#) Ad-on [C.](#) Tutorial [D.](#) Patch

12. The Internet was originally a project of which agency?

- [A.](#) ARPANET [B.](#) NSF [C.](#) NSA [D.](#) None of these

13. Which of the following is a correct format of Email address?

- [A.](#) name@website@info [B. name@website.info](#) [C.](#) www.nameofwebsite.com
[D.](#) name.website.com

14. The computer jargon - WWW, stands for :

- [A.](#) World Wide Web Worm [B.](#) World Wide Wildlife Web [C.](#) World Wide Women's Web
[D.](#) World Wide Women's Week

15. MIME stands for
- A. Multipurpose Internet Mail Extensions**
 - B. Multipurpose Internet Mail Email
 - C. Multipurpose International Mail Entity
 - D. Multipurpose International Mail End
16. In EMAIL, We need two VAs and two pairs of MTAs, When sender is connected to mail server via
- A. MTA and VTA
 - B. LAN and WAN**
 - C. IP and TCP
 - D. Host and IP
17. Mail access starts with client when user needs to download e-mail from the
- A. Mail Box**
 - B. Mail Server
 - C. Mail Host
 - D. Internet
18. When sender and receiver of an e-mail are on same system, we need only two
- A. IP
 - B. Domain
 - C. Servers
 - D. User Agents**
19. Post Office Protocol, version 3 (POP3), has two modes, Delete Mode and
- A. Outbox Mode
 - B. Keep Mode**
 - C. Idle Mode
 - D. Function Mode
20. FTP uses services of
- A. TCP**
 - B. UDP
 - C. SMTP

D. DDNS

21. NVT Stands for

- A. Network Virtual Transmission
- B. Network Virtual Token
- C. Network Virtual Terminal**
- D. Network Virtual Time

22. Post Office Protocol, version 3 (POP3) is simple and limited in

- A. Usage
- B. Availibility
- C. DataType
- D. Functionality**

23. At beginning of Internet era, messages sent by electronic mail were short and consisted of

- A. Images Only
- B. Strings only
- C. Text Only**
- D. Numbers Only

24. What can be attached to an e-mail as an attachment?

- A. Images
- B. Videos
- C. All of these**
- D. Text files

25. A _____ is a group of independent computers attached to one another through communication media.

- A. Internet
- B. E-mail
- C. Network**
- D. All the above

26. The first network to implement TCP/IP are

- A. ARPANET**
- B. INTERNET
- C. MANET

D. MODEM

27. Mosaic is a

A. Program language

B. Operating system

C. Web browser

D. None of these

Unit-IV

WWW-Web Applications, Web Terminologies, Web Browsers, URL–Components of URL, Searching WWW –Search Engines and Examples

WWW

WWW(World Wide Web) :

- It is a software application and it is used by everyone to browse on the internet
- It is a storage place for all the web pages
- Web runs on HTTP protocol
- Information on the web is transported by internet
- Web uses internet
- We open web pages by URL(uniform resource locator)
- URL is a web address that uniquely identifies web pages
- The document may be image , HTML file , program etc .

WEB BROWSERS:

- It is an interface between user and internet
- Some of the web browsers are internet explorer , fire fox , net space etc.
- Some components of the web browsers are title bar , menu bar , tool bar , scroll bar , hyper link etc .

Title bar: place we write or type the thing required for us

Tool bar: place where we have various commands that open on just a mouse click

Menu bar: place where drop down list appears for each menu

Scroll bar: place the allow user to move page up and down

Hyper link: hyper link is a link that relates text or images & is generally opened a new document

WEB TERMINOLOGIES :

- Some of them include
 - 1) Page (or) web page : A file that can be read over world wide web
 - 2) Pages (or) web pages :They are collection of documents displayed on the www.
 - 3) Hyper link : Web pages have hyper links to other pages
 - 4) Browser: A tool used to view web pages , mails , news etc.
 - 5) Multi media : Information in the form of graphic , audio , video or movies

UNIFORM RESOURCE LOCATOR :

- It is number of characters called the address of web page.
- Web manager is synonym to web master
- Web site is a place that contains various web pages

URL & ITS COMPONENTS :

- The place where address is displayed is called address bar
- The address of web page is URL (uniform resource locator)
- After entering URL we can get information related to that page
- URL has three parts & its format is as follows
How :// where // what
- Let us consider an example
http :// pub pages . uminn .edu/index.htm
- Here http : defines the protocol by which we can access the page .
- HTTP means (Hyper Text Transfer Protocol)
- Pub pages .uminn .edu–It is the domain name of the computer where pages reside
- Pub pages .uminn .edu tells browser the place we find the web page
- HTML provides the local name that uniquely identifies the pages

SEARCHING WWW – SEARCH ENGINES &EXAMPLES :

- Search engine is a tool that allows us to find information more quickly and easily
- Two things are required to find user information
- They are directories and search engines.

DIRECTORIES :

- They are the hierarchical representation of hyper links
- They contain topics such as education , new , science , sports etc
- Each topic is hyper link & has many sub topics
- It is very easy to use
Ex :www.search.com , www. Yahoo.com
- URL for many directories is as follows
http :// www .directory name .com

SEARCH ENGINES :

- Search engine perform the following :
 - ✓ Allow us to submit a query or request of what is required
 - ✓ Searches the DB
 - ✓ Returns all possible URL that match our request
 - ✓ Permits us to submit the query
- A number of search engines provide URL'S for related topics
- Some of the search engines are google ,altavista , AOL etc.

1. Which one of the following is not used to generate dynamic web pages?
 - a) PHP

b) ASP.NET

c) JSP

d) **None of the mentioned**

answer: D

2. An alternative of javascript on windows platform is

a) VBScript

b) ASP.NET

c) JSP

d) None of the mentioned

answer : A

3. What is document object model (DOM)?

a) convention for representing and interacting with objects in html documents

b) application programming interface

c) hierarchy of objects in ASP.NET

d) none of the mentioned

answer : A

4. AJAX stands for

a) asynchronous javascript and xml

b) advanced JSP and xml

c) asynchronous JSP and xml

d) advanced javascript and xmls

answer : A

5. A piece of icon or image on a web page associated with another webpage is called

a) url

b) hyperlink

c) plugin

d) none of the mentioned

Answer: b

6. Dynamic web page

a) is same every time whenever it displays

b) generates on demand by a program or a request from browser

c) both (a) and (b)

d) none of the mentioned

Answer: b

7. What is a web browser?

- a) a program that can display a web page
- b) a program used to view html documents
- c) it enables user to access the resources of internet
- d) all of the mentioned

Answer: d

8. Common gateway interface is used to

- a) generate executable files from web content by web server
- b) generate web pages
- c) stream videos
- d) none of the mentioned

Answer: a

9. URL stands for

- a) unique reference label
- b) uniform reference label
- c) uniform resource locator
- d) unique resource locator

Answer: c

10. A web cookie is a small piece of data

- a) sent from a website and stored in user's web browser while a user is browsing a website
- b) sent from user and stored in the server while a user is browsing a website
- c) sent from root server to all servers
- d) none of the mentioned

Answer: a

11. World Wide Web was publicly introduced for first time in

- A. 1980
- B. 1990
- C. 1970
- D. 1945

answer: B

12. World Wide Web was publicly introduced for first time by computer scientist and English engineer named

- A. Sir Daryl Chaplin
- B. Sir Gerald Pearson
- C. Sir Tim Berners Lee
- D. Sir Calvin Souther Fuller

answer: C

13. Protocol is client/server program used to retrieve the

- A. IP
- B. Header
- C. Document
- D. Cache

answer: C

14. In World Wide Web (WWW), an electronic store (e-commerce) can use a cookie for its

- A. Client Shopper
- B. Server Usage
- C. Server Data
- D. Client Data

answer: A

15. Uniform Resource Locator (URL), is a standard for specifying any kind of information on the

- A. Server-End
- B. Client-End
- C. WebPage
- D. Internet

answer: D

16. World Wide Web (WWW), was originally designed as a

- A. Stateless Document
- B. Stateless Program
- C. Stateless Entity
- D. Stateless IP

answer: C

17. Webpages are stored at the

- A. Server

- B. Client
- C. Domain
- D. Mail Server

answer: A

18. Collection of documents stored on a computer which is permanently connected with internet around world is called

- A. telnet
- B. WWW
- C. LAN
- D. FTP

answer: B

19. Computer jargon, WWW stands for

- A. world wide web worm
- B. world wide wildlife web
- C. world wide women's web
- D. world wide women's week

answer: A

20. Internet which is accessed by transmitting digital data over wires of a local telephone network is provided by

- A. leased line
- B. digital subscriber line
- C. digital signal line
- D. land line

answer: B

21. computer on internet is identified by

- A. email address
- B. street address
- C. IP address
- D. server address

answer: C

22. Computer web pages are written in type of language which is

- A. hypertext

- B. multimedia
- C. hyperlinks
- D. assembly

answer: A

23. snail refers to

- A. Any mail that is not responded to immediately
- B. Emails sent over a congested network
- C. Slow mails
- D. The post office mails

answer: D

24. An interconnection of computers and enables data and resource sharing, as well as communication is called

- A. Internet
- B. Network
- C. LAN
- D. Arpanet

answer: B

25. The place E-mails are stored is referred to as

- A. The inbox
- B. The ISP's mail server
- C. The Mail Box
- D. The internet post office

answer: B

26. What are the functions of the mail server?

- A. Create and deliver emails
- B. Store, receive and interpret emails
- C. Receive, store and deliver emails
- D. Receive, store, deliver and interpret emails

answer: C

27. Which email feature notifies a sender that the mail sent was not delivered?

- A. Forward feature

- B. Demon feature
- C. Bounce feature
- D. IP returned mail

answer: C

28. All the following are online communication tools EXCEPT

- A. Email
- B. IRC
- C. IM
- D. VIOP

answer: D

29. The _____ is an online system that organizes web sites in categories, by subject or any other schema.

- A. Search engine
- B. Web evaluator
- C. Web directory
- D. Crawler

answer: C

30. This is the utilization of ICT in support of all the activities of business.

- A. Tele-business
- B. E-business
- C. Telecommuting
- D. EFT

answer: B

UNIT- V

Basic HTML: Basic HTML –Web Terminology –Structure of a HTML Document –HTML, Head and Body tags –Semantic and Syntactic Tags –HR, Heading, Font, Image and Anchor Tags –Different types of Lists using tags –Table Tags, Image formats –Creation of simple HTML Documents.

BASIC HTML

BasicHtml: Html means Hyper Text Markup Language.

- The goal html is to design the web pages.
- It is a method of describing the format of documents.
- Html documents are displayed the web browsers.
- Html pages can be developed to be simple text or multimedia (sounds, audio, video, moving images)

Web terminology:

1. **Pages or web pages:** The global collection of documents accessible via the World Wide Web.
2. **Page or web page:** A file that can be read over the World Wide Web.
3. **Hyper link:** A string of clickable text that points to another web page.
4. **Hyper text:** It simply more than text, it flows from one to another.
5. **Browser:** A software tool used to view web pages.
6. **Multi media:** combination of text audio, video, images.
7. **Server:** A person who spends time exploring the World Wide Web.
8. **Web site:** A website typically has a computer serving web pages.

Structure Of Html Document:

All Html documents has the following basic structure.

<Html>

<Head>

Head section

<Title>-----</title>

</head>

<Body>

Body section

- - - - -
- - - - -

</body>

</html>

Creation of simple html documents :

<html>

<head>

<title> basic html program</title>

</head>

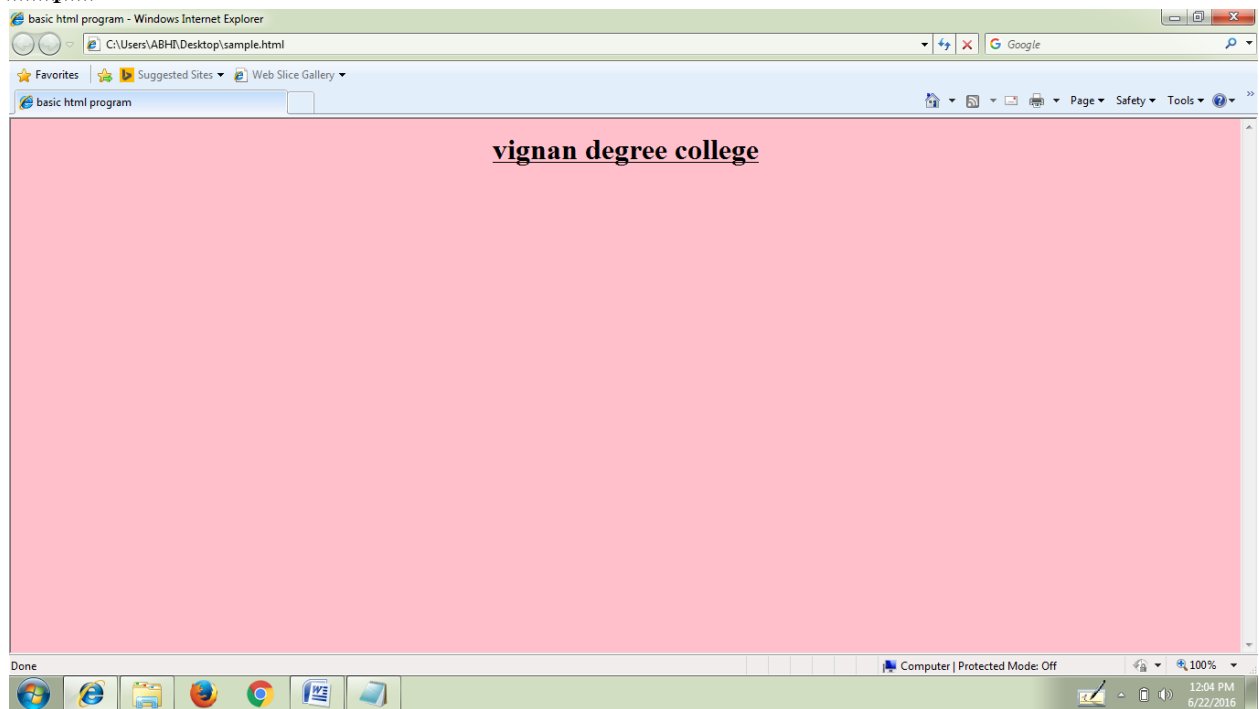
<body bgcolor="pink">

<h1 align="center"><u>vignan degree college</u></h1>

</body>

</html>

Output:



HTML TAGS

Tag is a format name surrounded angler brackets. E.g.: <h1><p>

- <Html><Html> are same.

Syntax: <tag attribute1="value" attribute2="value2"> - - - </tag>

Head tag: It maintains the control information, used by server & web server.

It consists of number tags inside it, the most important is <title>

Title tag: It represents name of the program.

Base font tag : <Base font> defines the font size <base font size="4">

Body tag: The body is the second and main part of every html document.

Properties of body tag: Text color: <body text="red">

Back ground color :< body bgcolor="green">

Back ground :< body back ground=sun.jpg">

Hyper link color:

Link: unvisited

V link: visited

A link: thinking of visiting

< body bgcolor ="blue">

Text="pink">

Link="yellow">

Font colors: To set the text color

 I am

Font size: To alter font size

wwelcome.

Image tag: To set an image.

Syntax: <imgsrc="sunset.jpg" width="100" height="100">

Anchor tag: To create the hyper links

click here

Paragraph tag: To break the text into paragraph

<p> paragraph</p>

Heading tag: To create headings <h1>to <h6>

<Hr>: to create a horizontal rule <Hr>

Semantic tag: It is used to indicate the content of the text.

Emphasis tag: It is used for highlighting text

 - - - -

Strong tag: To indicate an higher level

- - - -

Citation tag: It is used to specify a reference.

<Cite> - - - -</cite>

Address tag: To indicate address.

<Address> - - - -</address>

Syntactictag: It specifies how you want the text to appear.

Bold tag: To make the text as bold

 - - - -

Italic tag: To make the text as italic

<i>- - - -</i>

Subscript tag: To generate a subscript.

H2o -----> h (sub) 2</sub>o

Underline tag: It is used to underline text.

<u>- - - -</u>

Table tags:

- ✓ A Table is a grid of information.
- ✓ Table has two uses:
 - *Structuring piece of information.
 - *Structuring whole documents

Following tags are used in table creation..

(a) Tables are created using the <table>-----</table>

(b)The table row <tr> is used to create the row in table.

(c) Items in the rows are separated by <td><table data>.

(d) Table header tags used to specify the heading <Th>.

Syntax:

<Table>

<TR>

<Th> - - - -</Th>

<Th> - - - -</Th>

</TR>

<TR>

<Td> - - - -</td>

<Td> - - - -</td>

</TR>

</table>

Example:-

<Html>

<Head>

<Title>timetable</title>

</head>

<Body>

<table border=3 bgcolor="red" >

<TR> <Td>Monday</td>

<Td>Tuesday</td>

<Td>Wednesday</td>

</TR>

<TR> <Td>html</td>

<Td>CNS</td>

```

        <Td>uml</td>

</TR>

<TR> <Td>uml</td>

        <Td>se</td>

        <Td>CNS</td>

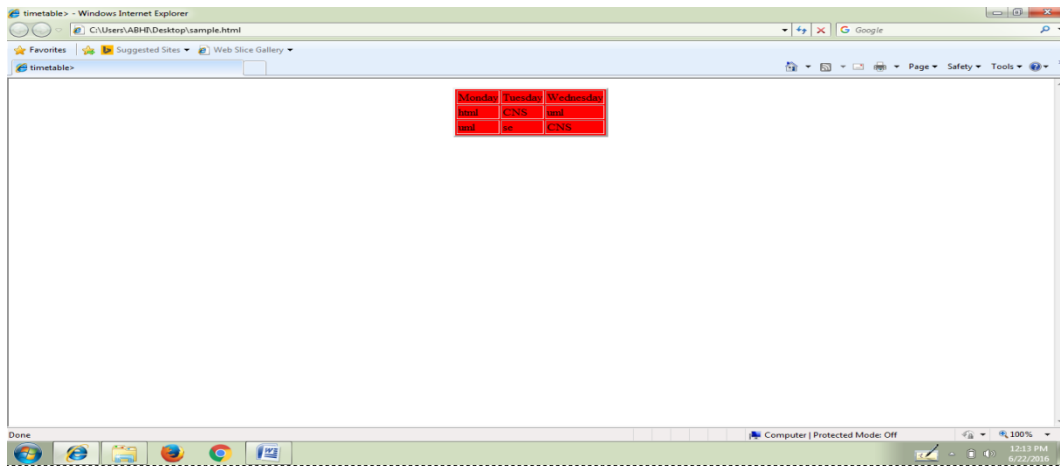
</TR>

</table>

</body>

</html>

```



Frames

- Frames allow the programmer is divide the browsers window into sections.
- Each section acting independently, each one has its own borders, scrollbars.
- When we talk about frame, we must know

```

<Frameset>

<frameset [cols="%, %, *"] [rows="%, %, *"]>

```

Example:

```

<Html>
<Head>
<Title>home pages</title>
<frameset rows="60%, 40 %">
<frame src="image.html">
<frame src="timetable.html">
</frameset>

```

```
</head>
</html>
```

Image.html

```
<html>
```

```
<head>
```

```
<title>image</title>
```

```
</head>
```

```
<body>
```

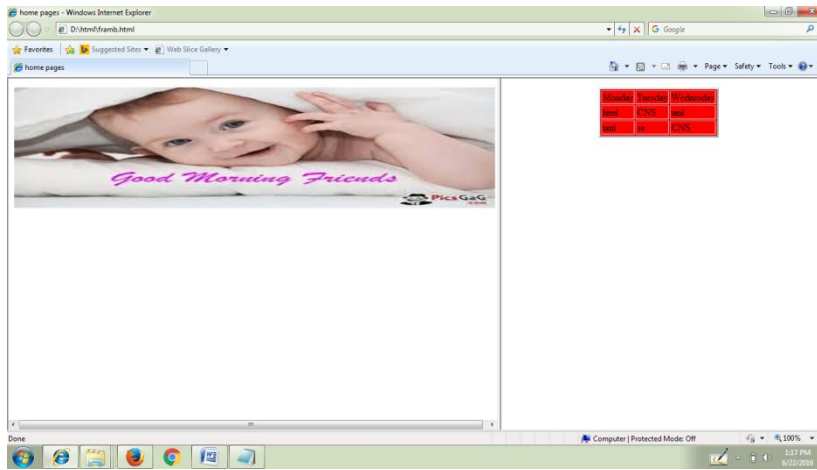
```
<imgsrc="E:\fam photos\facebook\download (11).jpg" width="100%" height="100%">
```

```
</body>
```

```
</html>
```



Final frame output is:



What is a list? Explain type of lists?

One of the most effective way of structuring a website or its contents is use lists.

- Lists may be for supplying a piece of information.
- For providing a straight forward index to the site.

Html provides 3 types of lists.

- ❖ bulleted list or unordered list()
- ❖ numbered list or ordered list()
- ❖ definition list(<dl>)

Bulleted list:-the basic unordered list has a bullet infront of each listitem.eech item must be placed in

Syntax:<ul [type="square"]>

.....

.....

Example:-

<html>

<head>

<title>unodered lists</title>

</head>

```
<body text="pink">
```

```
<h1 align="center">unordered list</h1>
```

```
<ul>
```

```
    <li>first item</li>
```

```
    <li>second item</li>
```

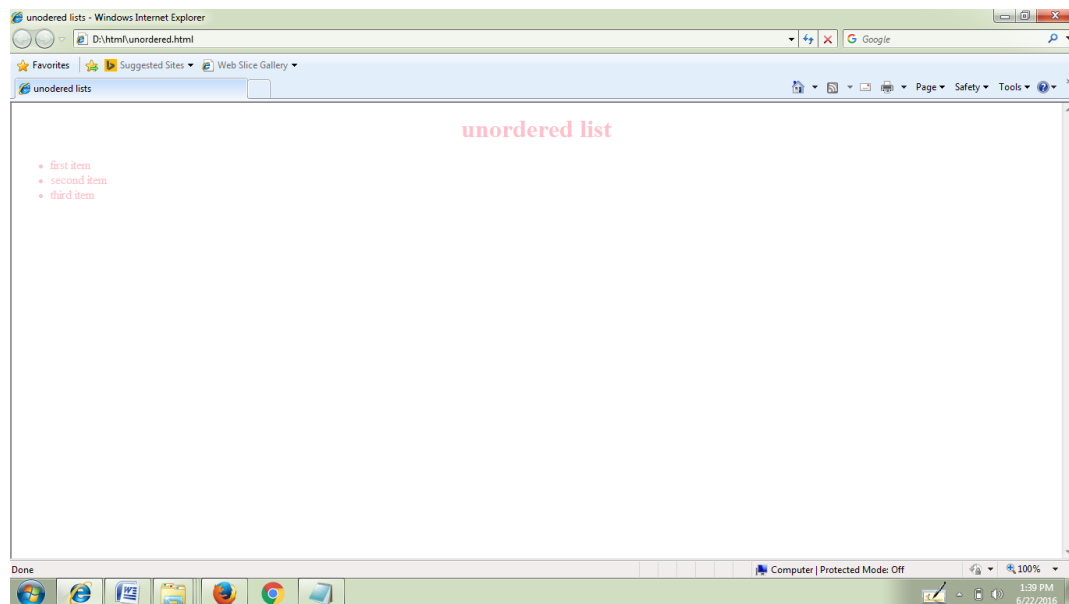
```
    <li>third item</li>
```

```
</ul>
```

```
</body>
```

```
</html>
```

Output:



Ordered list or numbered list

An ordered list is used for a series of sequential steps or ordered items.

Syntax:-<ol [type="a"]>

```
    <li>.....</li>
```

```
    <li>.....</li>
```

```
</ol>
```

Example:-

```

<html>

<head>      <title>odered lists</title></head>

<body text="pink">

<h1 align="center">unordered list</h1>

<ol>  <li>first item</li>

      <li>second item</li>

      <li>third item</li>

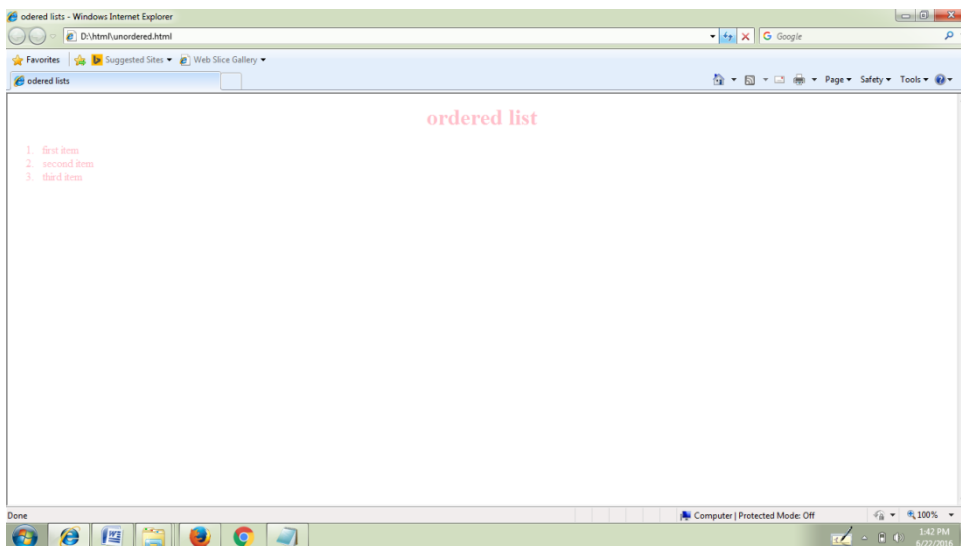
</ol>

</body>

</html>

```

Output:



Definition list:-Definition list a unordered. In which each item has two parts: A term and its definition

it uses three tags:-

<dl>:-defintion list

<dt>:-definition term

<dd>:-data definition

Syntax:-<dl>.....

<dt>...

```

        <dd>.....</dd>

</dt>

<dt>...

        <dd>.....</dd>

</dt></dl>

```

Example:-

```

<html>

<head>

<title>definon lists</title>

</head>

<body text="red">

<h1 align="center">definition list</h1>

<dl>

    <dt>html</dt>

    <dd>hypertext markup language</dd>

    <dt>dc</dt>

    <dd>data communication</dd>

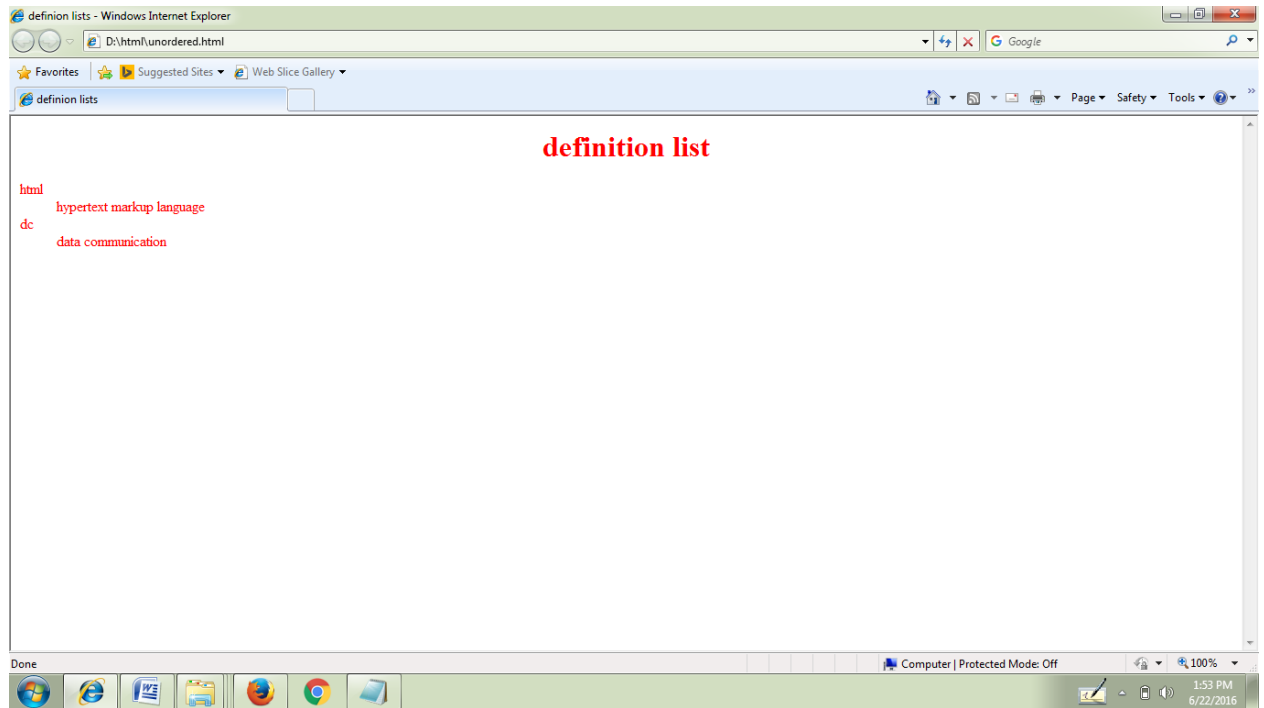
</dl>

</body>

</html>

```

Output:-



1. The common element which describe the web page, is ?

- a.heading b. paragraph c. list d. all of these

2.WWW is based on which model?

- A. Local-server B. client server C. 3-tier D. None of these

3.www is based on which model?

- A. Local-server
B. **Client-server**
C. 3-tier
D. None of these

4.HTML stands for?

- A.**Hyper Text Markup Language**
B.High Text Markup Language
C.Hyper Tabular Markup Language

D.None of these

5.which of the following tag is used to mark a begining of paragraph ?

A.<TD>

B.

C.<P>

D.<TR>

6.From which tag descriptive list starts ?

a. b. <dd> c. <dl> d. <ds>

7.Correct HTML tag for the largest heading is

a.<head> b. <h6> c. <heading> d. <h1>

8.The attribute of <form> tag

a. method b. action c. **Both(a) & (b)** d. None of these

9.Markup tags tell the web browser

A. How to organise the page

B. How to display the page

C. How to display message box on page

D. None of these

10.wahich of the following is used to create web page.

a. HTML B. JVM C. DTD D. C

10.HTML markup language is a set of Markup _____.

A Tags

B Attributes

C Groups

Sets

D

11. HTML tags are used to describe document _____.

A None of these

B Content

C Definition

D Language

12. What tag is used to specify a section of text that has been quoted from another source?

A. B. <blockquote> c. d. <a>

13. What tag defines a division or the beginning/end of an individual section in an HTML document?

A.
</br> B. <body></body> c. <title></title> D. <head></head>

14. What tag is used to render or transform text into an important (bold) version?

a. <blockquote> b. c. <a> d.

15. The common element which describes the web page, is ?

A. heading

B. paragraph

C. list

D. All of these

16. HTML program is saved using extension

- A. .htnl
- B. .htm
- C. .html**
- D. .tml

17. Primary author of HTML (hyper text markup language) is

- A. Brendan Eich
- B. Tim Berners-Lee**
- C. googleinc.
- D. Peter Norton

18. In computer, HTML is used to create

- A. machine language program
- B. high level program
- C. web page**
- D. web server

19. In computer web, basic fundamental block is also known as

- A. HTML element
- B. HTML attribute
- C. HTML body
- D. HTML tag**

20. PCs running with windows 3.x will have extension for HTML page which is

- A. .htm**
- B. .hml
- C. .html
- D. .tml

21. HTML document contain 1 root tag called

- A. HTML**
- B. BODY
- C. TITLE
- D. HEAD

22. Component used to create web page is

- A. HTML**
- B. DTD

- C. JVM
- D. C

23. HTML markup language is a set of markup

- A. tags**
- B. attributes
- C. groups
- D. sets

24. HTML tags are used to describe documents

- 1. content**
- 2. definition
- 3. language
- 4. link

25. HTML tags are surrounded by brackets

- A. squart
- B. round
- C. angle**
- D. curly