

CHRIST KING HR. SEC. SCHOOL, KOHIMA
CLASS 10

1st & 2nd Term, Foundation in Information Technology (FIT)

Chapter-1
Internet (First term and second term)

I. Multiple choice questions:

1. The internet is -----

Ans. A large network of networks.

2. Which term identifies a specific computer on the web and the main page of the entire site?

Ans. URL

3. URL stands for -----

Ans. Uniform Resource Locator.

4. Which of the following is not a web browser?

Ans. Both (b) and (c) above

5. Inter is governed by -----

Ans. None of these

6. WWW means -----

Ans. World Wide Web.

7. When you open Internet, the first page is referred to as -----

Ans. Home page.

8. Internet can be used for-----

Ans. All of these

9. HTML means -----

Ans. Hyper Text Mark-up Language

10. HTTP Means-----

Ans. Hyper Text Transfer Protocol

11. WWW uses the ----- protocol

Ans. HTTP

12. Website is a collection of _____

Ans. HTML files

13. In the mdu.org the component .org signifies that-----

Ans. Mdu is a nonprofit organization.

14. In an email address@is used. It represents-----

Ans. None of these

15. IP address are converted to -----

Ans. A binary string

16. An IP address is a string of _____ numbers separated by periods.

Ans. 4

II. Expand the following term

- (a) HTML – Hyper Text Mark-up Language
- (b) FTP – File Transfer Protocol
- (c) HTTP – Hyper Text Transfer Protocol
- (d) DNS – Domain Name System
- (e) URL – Uniform Resource Locator
- (f) WWW – World Wide Web
- (g) IP – Internet Protocol

- (h) TCP – Transfer Control Protocol
- (i) ISP – Internet Service Provider

III. Short Answer Questions.

1. What is internet?

Ans. Internet is a worldwide network of computers. It is also called the network of networks that connects millions of computers.

2. What is the use of internet?

Ans. The major uses of the internet are:

- Internet can be used for searching information,
- Shopping has become easier over the internet. We can buy to sell online.
- It helps people to communicate through emails and chatting.
- We can listen music, watch videos from popular websites.
- It provides us news and latest information on various topics.
- We can download useful software and upload the useful files in the websites.
- We can reserve our travel tickets using internet.

3. Name a few services offered on the web.

Ans. Few services offered on the web are communication services and transfer of files like text, graphics, images audio videos and other multimedia documents.

4. Differentiate between web page and web site.

Ans. A website is a collection of web pages with information on a subject containing hyperlink to move to other web pages, whereas a web page is a smaller part of a larger website usually containing more specific information or a single HTML document can be called as a webpage.

5. What is the advantage of using HTTP?

Ans. HTTP stands for Hypertext Transfer protocol. The advantage of HTTP is that HTTP is a client-server protocol by which two machines communicate using a reliable, connection-oriented transport rule to transfer files like text, graphics or other multimedia files on the World Wide Web.

6. Give one reason why each computer on the internet needs to have a unique IP address.

Ans. IP is a method or protocol by which data is transferred from one computer to another. Each computer on the internet needs to have a unique IP to ensure that the data is transferred to that particular computer only from the server rather than any other computer (the client).

7. What is the role of ISP?

Ans. The role of ISP is to provide internet connectivity to the client computers to enable them to connect to the internet/World Wide Web.

8. What is TCP?

Ans. Transmission control protocol (TCP) is a network communication protocol designed to send data packets over the internet.

9. What is DNS?

Ans. DNS is a worldwide system of servers that stores location pointers to websites. DNS translates the domain you enter in your browser into a computer readable IP.

10. What is a search engine?

Ans. A search engine is a web-based tool or software that enables users to locate information on the World Wide Web.

11. Give some names of search engines?

Ans. Some popular search engines are Google, Yahoo, Bing etc.

12. What is a web page?

Ans. A single HTML document on the World Wide Web is called a web page.

13. What is a web browser?

Ans. A software that enables us to view the web pages is called a web browser Eg: Google Chrome, Microsoft Internet Explorer.

14. Write the name of any four web browsers.

Ans. Any four web browsers are Google Chrome, Microsoft Internet Explorer, Mozilla Firefox and Apple Safari.

15. What is a blog?

Ans. A blog is a listing of text, images or other objects that are arranged in chronological order. It is maintained and run by a single individual.

16. What is intranet?

Ans. An intranet is a secure and private enterprise network that shares data or application resources via internet Protocol.

17. What is Extranet?

Ans. An extranet is a controlled private network allowing customers, partners, vendors, suppliers and other businesses to gain information typically about a specific company or educational institution, and do so without granting access to the organizations entire network.

18. What is the difference between intranet and extranet?

Ans. The Major difference between intranet and extranet, however, is that an intranet is a network where employees can create content, communicate, collaborate, get stuff done and develop the company culture while an extranet allows businesses to communicate with clients and vendors, an intranet allows employees and colleagues to work with each other in a virtual space- no outside parties are involved.

IV. Long Answer Questions.

1. Briefly explain the use of protocol.

Ans. A network protocol defines rules and conventions for communication between network devices. Network protocols include mechanisms for devices to identify and make connections with each other, as well as rules that specify how data is packaged into sent and received messages. Some protocols also support message acknowledgment and data compression designed for reliable and/or high-performance network communication. Modern protocols for computer networking all generally use packet switching techniques to send and receive messages in the form of packets-messages sub –divided into pieces that are collected and re-assembled at their destination.

2. What are the benefits of networkers?

Ans. The inter connection of two or more computers over a small or large geographical area either through wire or wireless is called networkers. Some of the benefits of networkers are listed below:

- File sharing – you can easily share data between different users, or access it remotely if you keep it on other connected devices.
- Resource sharing- using networker- connected peripherals devices like printers, scanners and copiers, or sharing software between multiple users, saves money.
- Sharing a single internet connection- it is cost-efficient and can help protect your systems if you properly secure the network.

- Increasing storage capacity- you can access files and multimedia, such as images and music, which you store remotely on other machines or network-attached storage devices.

3. Explain the uses of internet.

Ans. Internet has become a part of everyday life. The uses of internet are however some few uses of internet are:

- It can be used to search information with the help of search engines like Google or Yahoo.
- Online selling and buying of goods can be done with the help of internet sitting at the comfort of home instead of going to the departmental stores.
- Communication has become easier through emails and chatting irrespective of holidays or boundaries.
- Internet is a source of entertainment like listening to music watching videos and playing online games.
- Tickets for train, bus, and flight movies can be booked through internet.
- Useful software can be downloaded with the help of internet
- Students can get information and learn appear online exams, join online courses.

4. Explain the features of web browser?

Ans. A web browser is software that allows us to view web pages available on the internet on our computer, tablet or smart phones. Some features of web browser are:

- The web browser looks like a webpage used to access information and explore resources.
- It has a number of commands available through menus icons, and buttons like stop refresh back forward etc.
- A web browser provides an easy way to get help online by providing the questions and getting the answers.
- A web browser can save links to the sites which you can visit again at later times without searching and navigating again.
- Web browsers also provide us option to save a web page as a file on the computer and get a print or email it to someone else.
- Web browsers are able to handle text images, audio and videos.

5. Explain TCP/IP protocol.

Ans. TCP stands for Transfer Control protocol and IP stands for internet protocol. An IP address is a binary number that uniquely identifies computers on a network. An IP address can be private- for use of local area network (LAN) or public network (WAN). A typical IP address consists of four numbers separated by a period i.e. 192.168.102.143. This IP address given in decimal form will be converted to binary form (0s and 1s) which can be interpreted by the computer. The internet Protocol (IP) is a method or protocol by which data is sent from one computer to another over the internet. When a piece of data is sent or received from one computer to another, it gets broken or divided into little chunks called packets. These packets are received at the designated or specific computer through the IP address in different orders. It is the TCP that re-assembles or put the packets in the right order. IP just delivers the packets.

6. What is URL? What are its components?

Ans. URL stands for Uniform Resource Locator. It is an address of the file on the internet. Internet structure is built of some set of rules called hypertext transfer protocol. The URL specifies the internet address of a file stored on a host computer or server, connected to the internet. Web browsers use the URL to retrieve the file from the server. An URL looks `http://www.Download.com/software/abc.exe` where `http:` specifies the type of server on which the file resides, `download.com` is the address of the server; `software` is the path of the file `abc.exe`.

Some of the components of URL are given below:

- Protocol (`http://`) This is a set of transmission rules generally used for browsing. When two computers exchange information, they have to agree on how the first computer sends and how the other receives. This set of rules is called protocol. Another protocol is [ftp://\(File Transfer Protocol\)](#) where files are transferred from one computer to another.
- Host: The second part of a URL is the host. It normally starts with wide web). It tells the browser the location of the site.
- Path and file name: This part of the URL tells the browser where the file is located and in which directory on the web server. After the domain name the path and file name is followed by a forward slash (/).

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CHAPTER-2 Services Available on Internet

I. Multiple choice questions

1. Which of the following statement about search engine is true?

Ans. Search engine is a programme designed to search for information on the web.

2. Services available on the internet include-----

Ans. (b) i,ii,iii,iv,v

3. A search engine is a programme to search -----

Ans. (a) for information.

4. In which of the following logic, both of the search terms are present?

Ans. (a) AND

5. Which of the following is a social networking site?

Ans.(d) Facebook

II. SHORT ANSWER QUESTIONS.

1. What do you mean by search engine?

Ans. Search engines are special sites on the web that are specially designed to help people find information stored on other sites.

2. What is indexing software?

Ans. Indexing software is a component of a search engine that collects parses, texts URLs etc. Sent by the spider which is analyzed and stored basing on its relevance or importance to facilitate faster retrieval of information.

3. Discuss OR logic in brief.

Ans. OR logic is used by a search engine to retrieve records in which at least one search term is present. OR logic is most commonly used to search for synonymous terms or concept. For example if the term college is searched, the search engine may return the document containing the word college and also school as the both the words might be relevant.

4. Who is the founder of Boolean Logic?

Ans. Boolean Logic refers to the logical relationship among search terms and is named for the British-BORN Irish mathematician George Boole.

5. How can you find people on the internet?

Ans. There are numerous sites on the internet and search engines that can be used to help find people on the internet. Social Networking sites such as Facebook, MySpace etc. Lets us search for people by name, filtering results by age location and interests.

III. LONG ANSWER QUESTIONS

1. Explain three basic elements of search engine.

Ans. A search engine is a web-based tool that enables users to locate information on the World Wide Web. Popular examples of search engines are Google, Yahoo!, and MSN Search. The three basic elements of a search engine are as follow:

- i. Spider or WebCrawler: It is a program that automatically fetches Web pages. Spiders are used to feed pages to search engines. It's called a spider because it crawls over the Web. Another term used for these programs is WebCrawler. Since most Web pages contain links to other pages, a spider can start almost anywhere. As soon as it sees a link to another page, it goes off and fetches it.
- ii. Indexing Software: The index makes sense of the mass of text, links and URLs using what is called an algorithm analyzes the pages and links for word combinations to figure out what the web pages are all about- in other words, what topics are being covered.
- iii. Search Engine Algorithm: A search engine algorithm is a set of rules or a unique formula, that the search engine uses to determine the significance of a web page and each search engine has its own set of rules. A search engine algorithm uses keywords as the input problem and returns relevant search results as the solution, matching these keywords to the results stored in the indexed database.

2. Explain the following in detail:(a)OR logic (b)AND logic (c) NOT logic

Ans. (a) AND logic: With AND logic when we combine search terms in a full-text search our results contain everything in which both terms we searched for appears. This way of combining search terms make our search results more accurate. AND logic can be denoted in the following way: horse AND cow.

(b)OR logic: With OR logic, when we search two terms in a full-text search, we find all the items that contain one of the two terms or both the terms. OR logic can be denoted in the following way: horse OR cow.

(c) NOT logic: When we search using NOT, we only find items that exclude the search term following it. This way, if we search two words, say horse and cow, and put NOT between horse and cow, we get all the items with the word horse

that do not contain the word cow. The NOT logic can be denoted as horse NOT cow.

3. How can AND and OR logic be combined?

Ans. Parentheses allow was to combine AND and OR logic by determining the order in which terms are combined. For instance, if we search “horse” AND (“cow” OR “donkey”), we will get results that contain the item “horse” and either “cow” or “donkey”. If we do not group this way, the search is interpreted as “horse” AND “cow” OR “donkey” which then returns items containing either both horse and cow or containing donkey. By using parentheses, we are able to control the grouping of search terms.

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Chapter -5

Content Technology

I. Multiple choice questions

1. Data contains.....

Ans: numbers, letters, special character

2. Which of the following is a type of data?

Ans: alphanumeric data, audio data, video data

3. Which of the following is the most complex form of data?

Ans: video data

4. A sound card is used to

Ans: process data

5. Audio is a

Ans: digitized form of sound

6. Which of the following is a not hardware requirement for audio?

Ans: keyboard

7. Which of the following device is used to convert images to digital format?

Ans: scanner

II. SHORT ANSWER QUESTIONS

1. What are the elements of multimedia?

Ans: the elements of multimedia are an integration of sound, animation, images and videos along with computing technology.

2. **Differentiate between data and Information.**

Ans: data is a form of raw facts and figures where as information is the result of processed data. Data is input form of where as information is output form.

3. **Name some display devices.**

Ans: Some of the display devices are HDTV, SVGA, High Resolution monitors, Kiosk, smart phones etc.

4. **Define text.**

Ans: text is a most commonly used written materials. It requires text processing software and it consist of alphabets, numbers, punctuations and special characters.

5. **What are sound cards?**

Ans: sound cards are computer audio devices that convert data into audio signals and audio signals into data. A sound card may be either embedded on a motherboard as a chip or a card to be used in the expansion slot in the computer.

6. **List few software programs used for computerized animation.**

Ans: there are a number of software programs available for computerized animation. However, some software programs used for computerized animation are 3D studio max, flash, animation pro, swish max etc.

7. **What are the essential hardware requirements for multimedia?**

Ans: hard ware requirements of multimedia are computer system, capture device, storage device, display device etc.

III. **LONG ANSWER QUESTIONS**

1. **What are the uses of multimedia?**

Ans: some of the uses of multimedia are :(i) sound effects can be added to a file. (ii) 3-D effects can be created to images. (iii) Various business presentations can be created using pictures, music, videos etc. that can be displayed using projectors. (iv) Greeting cards can be created to be printed or sending through mail. (v) Interaction can be done using spoken words. (vi) Sound can be recorded and effects can be edited to be used as settings on the computer. (vii)PC can be connected to television set and audio systems to create a home theatre.

2. **What is sound and video? Write hardware requirements for audio.**

Ans: In general, a sound refers to a vibration that is picked up by the human ear. As a sound is generated, it is blasted in waves that vibrate in a frequency measured in hertz (Hz). The word sound is an analogue form. Video is an electronic medium for the recording, copying, playback, broadcasting, and display of moving visual multimedia source that combines a sequence of images to form a moving picture.

Some of the hardware requirements for audio are;

(i)sound card :to convert analogue sound into digitized format of audio .

(ii)speakers: signals, (iii)headphone: a sound device to emit the sound on audio signals if speakers are not available, and (v) microphones: an input device to recode sound to be converted into audio format.

3. Define Animation. Also write its hardware and software requirements.

Ans: Animation on computers is one of the chief ingredients of multimedia Presentations. It is the illusion of movements created by showing series of still pictures in rapid succession. The brain perceives the group of images as a single changing scene.

Hardware required of animations are: image generation tools and devices like scanner, digital cameras and video cameras. Computer monitor with image display capability for outputting animation preferably a colour display unit which not only controls the resolution but also the reflect rate.

Software required of animation are: animation creation software that will willow the user to create animation sequence from the scratch by using simple device like mouse, line circles etc . Screen capture software is also needed to capture the displays of a computer screen as graphic.

4. What is the role of audio in multimedia?

Ans: when considering multimedia applications audio is often neglected. Traditionally computers have relied on visuals interfaces, and audio facilities were very limited. Audio can be used to enhance multimedia applications in a number of ways, for example in delivering lectures over the web, music used to add interest and emotion to a presentation, and other non speech audio used as part of a general interface, perhaps the most obvious advantage of using audio is that it can provide an interface for visually disabled users it can convey meaning, providing an extra channel of information. It allows redundancy to be incorporated into the presentation of information, so that if the meaning is unclear to a user using visual information alone the audio may clarify it. Different learners use different learning strategies, and audio can provide additional information to support different learner styles, for example some of users may learn more by hearing than reading. it is useful for directing attention to important events. It can add interest to a presentation or program. And last but not the least, ease of communication –user may respond better to the spoken world than other media.

Chapter 6
DATABASE MANAGEMENT SOFTWARE
MS ACCESS

I MULTIPLE CHOICE QUESTION

1. Ms Access saves the files with extensions.

Ans: .accdb

2. What is the maximum length of a text field?

Ans: 255 characters

3. Which of the following fields would not make a suitable primary key?

Ans: a date of birth field

4. What are the columns in Microsoft access table called?

Ans: fields

5. Which field type is used to store pictures in a table?

Ans: OLE

6. Which of the following is not a type of Microsoft Access?

Database Object

Ans: workbook

7. What is the best ms-access object for an invoice you will mail to Customers?

Ans: a report

8. Which of the following database objects ask a question of Information in a database and then displays the result?

Ans: queries

9. Reports can be prepared from.....

Ans: tables and queries

10. Queries can be prepared from.....

Ans: tables

II SHORT ANSWER QUESTION

1. What is the role of ms – access in data handling?

Ans: MS – access is a powerful tool in managing data as it can manage a large database on a single disk file up to 1GB and can accommodate 32,768 tables and objects. It can be linked to other DBMS software. Moreover, can allow a maximum of 255 users at a time.

2. What do you know about primary key?

Ans: A primary key is a field or set of fields that uniquely identify each record in a table.

3. Briefly explain the following terms.

(i) Forms (ii) Queries (iii) Reports

Ans:(i) Forms: forms are a convenient way of entering data in a data based software.

(ii) Queries : queries are data based objects that ask questions of information to display the required results.

(iii) Reports : A Report is an effective way to present data in printed format.

4. How data entry can be entered in a table?

Ans: Data entry can be entered in a table in records and fields after creating a table with the required fields.

5. Name two possible primary key fields for an employee table.

Ans: Two possible primary fields for an employee table are (i) employee code (ii) phone no:

6. What is the procedure of adding record in a table?

Ans: Procedure of adding record in a table are:

(i)Open table in the Data sheet View

(ii)To add new record, click the “new record” from the ‘record’ button group in the Home tab

7. What is the function of “allow Zero Length “ property of a field?

Ans: Allow Zero Length is a data validation property of a field that refers to the requirement for a zero field. It can either accept yes or no.

8. What is validation Rule?

Ans: validation rule is rule that is applied to the data types to ensure that the data entered by the user is valid and correct.

9. What is the purpose of “Default Value “ field property?

Ans : Default value is a field property that automatically enters a value in the field for new records. The user need not have to enter the value in that field.

10.what are the steps to validate data in a record?

Ans: steps to validate data in a record are :

- i. Open the table for which record validation is required.
- ii. On the Field Tab, in the Field Validation group, click Validation and then click Record Validation rule .
- iii. Use the Expression Builder to create the rule

III..LONG ANSWER QUESTIONS

1.what are the various components of MS- access?

Ans _some of the components of MS- access are:

***Table:** a table is the primary unit of physical storage of data in a database. It looks similar to an Excel sheet. It consist of rows and columns. Each raw is referred to as record and each column is referred to as fields each raw contains complete information about one item. Each field consists of a particular type of information. A single MS-access file may contain more than one tables related to one another.

***Queries:** queries are request for information. It is basically questions about the data in a database. Queries allows the users to extract data from a table based on criteria that is defined, queries can also sort, calculate filter, update data etc. based on the result that are being looked for.

*** Forms:** A Form is a database object that can be used to create a user interface for a database application. Forms are designed to ease the data entry process. People generally prefer to enter data into a well designed form, rather than a table.

***Reports:** once data is entered into a database can be run to view, summarize or format various information and print or email reports intended to be used to output data to another device or application that is printer, tax, Microsoft word or Microsoft excel

2. How can you insert /remove primary key in the table?

Ans: Primary key in the table can be inserted /removed in the following way:

INSERTION

- ❖ Select the table whose primary key needs to be set.
- ❖ Go to design view in the home tab in the views group.
- ❖ In the design grid, select the field or fields where primary needs to be set.(click the row to set single primary key, to set multiple primary key press CTRL and click the desired row)
- ❖ On the design tab in the tool group, click primary key. (A key indicator will appear on the field/ fields indicating primary key has been set)
- ❖

REMOVAL

- ❖ Select the table whose primary key to be removed.

- ❖ On the home tab, in the views group, click view and design view.
- ❖ Click the row selector for the current primary key. (in case if the primary is applied to multiple fields hold CTRL and click the field for which the primary key needs to be removed)
- ❖ Click primary key in the tool group on the desired tab.

3. What is the procedure for the inserting and deleting fields From a table?

Ans: The procedure of insert and deletion of fields can be done in two ways.

(a) fields can be inserted automatically by entering data. Field to a table can be added by typing into the last column in the datasheet view. Access automatically assigns the data type and format based on the data input.

The steps are:

- i. Open the table to which additional fields need to be added.
- ii. Type the data in the cell below the click to add column header.
- iii. Double click the column header and rename the column. Fields can also be added in the middle of a table. To do so choose the fields tab on the ribbon and perform the following steps.
- iv. Open the table in the data sheet view
- v. Select the field in front of the position where a field needs to be added.
- vi. On the fields tab in the add or delete group

(b) Fields can be deleted from a table in two ways.

- (i) Open the table in the data sheet view.
- (ii) Give a right click on the header of the field that needs to be deleted.
- (iii) From the menu click the option "Delete field "the field will get Deleted . or, open the table in the design view. Right click on the field that needs to be deleted. From the option click "Delete Row". click save. The field will be deleted from the table.

(c)Open the table. Click anywhere In the field that needs to be deleted. Click on the field tab. From the add & delete group click delete icon the field will be deleted.

4.what are the different data types in MS-access, explain any five.

Ans: Every table is made up of fields. A field's data type in the most important property because it determines what kind of data the field can store. Some of the data types are:

- (i) Text: it contains short, alphanumeric values, such as first name, last name or street address. It can also contain text or numbers. It can store up to 255 characters.
- (ii) Numbers: This field can contain only numerical values such as year, roll no, distance etc. it does not accept text. Storage size can be up to 1,2,4 or8 bytes.

- (iii) Calculated field: results of a calculation. The calculation must refer to other fields in the same table. An expression builder needs to be created for calculation.
- (iv) Attachment: This data type attaches images, spreadsheet, documents charts and other types of supported files to the record of database, similar to attaching files to email messages.
- (v) Memo: this data type can hold long blocks of text. it can hold variable data from 0-65,535 characters. This variable can be text or numbers or combination of text and numbers.

5. Write brief notes on the following terms.

- (i) Field Size**
- (ii) Default Value**
- (iii) Validation Rule**
- (iv) Required zero length**

Ans: Data validation is a unique feature of database software that allows checking the data that is entered into the database and ensures that no validation rule is broken it restricts users to enter invalid data into that database.

- (i) **Field size:** field size refers to the maximum number of characters which can be entered in the field. For example if the field size of a field "mobile no" is set to 10 then it will accept and store only ten digits of the phone no, it will indicate an error if more than 10 digits are entered in the field.
- (ii) **Default value:** default value is another field property of a data type where the value is automatically entered in the field for the new record. Even if the user does not enter any value in the field, the default value is entered. for example, in a table of students' details, if the class field is set to default value "10" in the table while entering the data the "class" field will automatically enter 10 in the particular field. This field property is used when a common data needs to be entered in the entire table.
- (iii) **Validation rule:** a validation rule is a rule that dictates which information can be entered in to a field. When a validation rule is set , it is impossible for a user to enter data that violates the rule. For example, text cannot be entered in a field where the data validation rule has been set for number in a field.
- (iv) **Required:** required is also a type of field property that can set for a field which requires a data entry in the field. Required field property has two options. "YES/NO" if the option is set to "yes" a user cannot skip the field without entering data. However, if the option is set to "NO" then the user can skip without entering data.

- (v) This property refers to the requirement of a zero –length field. it can accept one value either YES or NO.

6. Differentiate between primary key and foreign key.

Ans: Data processing in Access becomes faster if a primary key is defined for a table. A primary key is a field or a combination of fields that uniquely identify each record in a table. It means same value cannot occur twice in a primary field. Access can set the primary key automatically or can be set by user manually. Setting primary key is advantageous. Firstly primary key is automatically indexed that makes retrieval of data faster. Secondly it prevents entry of duplicate data. Whereas a foreign key refers to a field or a collection of fields in a database record in some other table. In simple terms, it establishes a link between records in two different tables in a database. It can be a columns meaning a foreign key defined in a table refers to the primary key of some other table. References are crucial in relational databases to establish links between records which is essential for sorting databases. Foreign keys play an important role in relational databases normalization especially when tables need to access other tables.

7.What is the procedure for creating query in MS-Access?

Ans: A query is a request for data result. For action on data or for both. A query answers a simple question to perform calculation, to combine data from different tables or even add, change or delete table data. The procedure of creating a query using query wizard.

- (i) Start MS-Access
- (ii) Create or open an existing database from right pan. Select the table from the database.
- (iii) Click query wizard button present under create tab. A new query dialogue box appears.
- (iv) Select Simple Query Wizard from the dialogue box.
- (v) The Simple Query Wizard would show the table you selected in the next step along with the fields. Select the required field and click the arrow button >> to add the required field.
- (vi) Click next to select the type of query. i.e summary or detailed.
- (vii) In the next step give a suitable title name for the query and click finish.
- (viii) The query will open to show the information from the table query condition can be changed in the design view.

Chapter-7

Hypertext Markup Language

Multiple choice questions:

1. Which of the following tags is used for line breaks in the documents?

Ans.

2. Which of the following tags is used for paragraph breaks in the documents?

Ans. <P>

3. Which of the following tags is not an empty tag?

Ans. <P>

4. Which of the following is not a web browser?

Ans. Notepad

5. Which of the following tags is used for boldfacing the text?

Ans. Strong

6. Which of the image file extensions cannot be inserted in the web page?

Ans. .pcd

7. You can insert.....images in your web page.

Ans: unlimited

II. SHORT ANSWERS QUESTIONS

1.What is the full form of HTML?

Ans: The full form of HTML is Hyper Text Markup Language.

2.What is the purpose of using HTML?

Ans: The purpose of using HTML is to create hypertext documents.

3.What are the uses of HTML?

Ans: The uses of HTML are developing, organizing, formatting and linking of text, graphics and other information.

4. What do you mean by a webpage?

Ans: A web page is a document for the World Wide Web that is identified by a unique uniform resource locator.

5. What is the difference between a web page and a Notepad document?

Ans: A web page is a hypertext document with an .html extension which can be viewed using web browser whereas a notepad document is a document with .txt file extension used to view in text editors.

6. What is the format in which HTML documents are saved?

Ans: HTML document can be saved in graphic web browser format with .htm or .html file extension.

7. What is the difference between an ordinary Notepad document and an HTML document?

Ans: An ordinary Notepad document is saved with. Text extension and an HTML document is saved with an .htm or .html extension.

8. What are the main steps which can help you create HTML documents?

Ans: The main steps to create HTML documents are:

- Open Notepad or any text editor
- Type the HTML commands and text to be displayed on the web page.
- Choose “All file” from “Save as type” drop down list from the “Save As” dialogue box.
- Save the file with an .html file extension.

9. What are the basic requirements for creating a webpage?

Ans: The basic requirement for creating a webpage is (a) a text editor like notepad and a web browser to view the web pages.

10. Who many web pages can be linked which each others?

Ans: Unlimited web pages can be linked with one another.

11. What are the main requirements for sending your web pages on the internet?

Ans: The main requirement for sending web pages on the internet are (i) A computer (ii) An active internet connection (iii) A web browser to access your domain.

12. What is the meaning of a website?

Ans: A single or a collection of HTML documents, containing text, graphics, links, on the world wide web is called a website.

13. How can you insert paragraph break in a document?

Ans: Paragraph break can be inserted in a document by using `<p>...</p>` tag.

14. What is the meaning of a tag?

Ans: Tags are encoded information or commands that direct the text format on the screen and usually written between `<>...</>` two arrow heads.

15. What are the types of tags?

Ans: There are two types of tags. Container Tag and an Empty tag.

16. Give three examples of empty tag.

Ans: Some examples of empty tag are `<HR>`, `
`, ``

17. Give five examples of container tag.

Ans: Five examples of container tag is: `<HTML>...</HTML>`, `<BODY>...</BODY>`, `...`, `...`, `</>...</>`, and `<U>...</U>`

18. What are the attributes of `<hr>` tag?

Ans: Some of the attributes of `<hr>` tag: Size, Width, Noshade, Align, Colour,

19. What is the default colour of (a) link attribute (b) alink attribute (c) vlink attributes

Ans: The default colour of (a) link attribute is blue. (b) alink attribute is red (c) vlink attribute is purple

(Note: Question no 13 and 18 is repeated in the text book)

III.LONGANSWERQUESTIONS

1. Distinguish between container and empty tag.

Ans: Container tags appear in pair in an HTML document. It has a starting tag and an end tag, for example `...` whereas empty tags appear in single and doesn't have an end tag. Eg: `
`

2. Distinguish between paragraph tag and link break tag.

Ans: `<P>` tag or paragraph is a container tag. It marks a block of text as a paragraph, and because of that, the browser will not only leave a blank line between two paragraphs, but will also adjust the contents of the paragraphs based on the size of the viewer. As well, they have additional attributes such as 'align', which impacts how the content of the paragraph gets laid out whereas `
` tag or line break tag is an empty tag used to indicate that a line break should be rendered. More specifically, the content preceding the element will be on a different line than the context after the element. There are no additional attributes available to the element, as its purpose is solely to create a new line. It is like "Enter" on any other word processing software.

3. Write structure of an html document, Explain meaning of <HEAD> and <BODY> tag used in it.

Ans: A complete HTML document is written on a text editor between `<html>` and `</html>` tags, The `<html>` tag is the start of any HTML document telling the browsers that all that follows after this tag is HTML codes. `<html>` is the start tag and `</html>` is the end tag. Any other tags written should be written in between these two tags. An usual HTML structure looks like this:

`<HTML>`

`<HEAD>`

<TITLE> Title of the page that will appear on the title bar of the browser</TITLE>

</HEAD>

<BODY>

Contents to be displayed on the web page are typed/inserted in between the body tags.

</BODY>

</HTML>

<HEAD> :<HEAD> tag is a container tag. It has a starting and end tag. It usually follows right after the <html> tag. The content typed in between the head tags acts as a header for the webpage that appears at the top of the page.

<BODY>: The <body> tag is used to represent the body of the document. It is a container tag. The whole text to be represented as body of the document is written in between <body> AND </body> tag. The body tag contains all the content of an HTML document such as text, images, hyperlinks, tables, forms, lists etc. <body> tag also consist of the certain attributes. Some or the attribute are bgcolor, background, text, vlink, a link, link, leftmargin, topmargin... etc.

4. What are heading tags: Explain.

Ans: Heading tags are text that are displayed on the pages with visual emphasis. HTML provides 6 different levels of headings. Heading tag is also a container tag. The tag for heading is <Hn> where n can be replace with the different levels from 1 to 6, such as <H1>, <H2> etc. <H1> being the biggest heading text size and <H6> being the smallest heading text size. Heading tags are used to create different sub-heading for the paragraphs on a webpage. In most of the cases only three heading levels are used on a web page i.e. <H1>...</H1>, <H2>...</H2> and <H3>...</H3>. Heading can also be aligned to show in the center or to the right depending upon the alignment of the paragraph.

5. What are the attributes which are used with the tag?

Ans: Basically, three attributes can be used in the font tag. They are, face, size and color. For example ``, `` and ``. These attributes can be used singly or in combination with other attributes of the font tag.

``:By default the font that a web page takes is Times New Roman but this can be changed by using face attributes to the font tag. Face can be a list of one or more font names each separated by commas. The text is displayed in the default font if the user does not have the desired font on the users system. If more than one font name is used in the face attribute, the browser takes the first font. If the first font is not available then the browser takes the second font and so on. For example ``

``: This attribute specifies the color of a sentence or a whole paragraph. The color attribute value can be a color name such as red or green or it can be hexadecimal RGB value of the color. For example, ``. The text will be displayed in green color as long as the end tag of `` is not used.

``: Size attribute is used in the font tag as `` where n stands for different sizes from 1 to 7. The smallest font size is 1 and the biggest size is 7. For example ``. The default size is 3.

6. How can you use a horizontal rule tag in your document?

Ans: At times there is a web page with the other, in this case a horizontal rule or `<HR>` tag can be used. This tag inserts a horizontal rule on the web page. Along with the `<HR>` tag some of its attributes also can be used to make the horizontal rule more distinctive. Some of the attribute are size, width, align, color and noshade. Size of the horizontal rule is given in pixel, width is given is percentage of the document width, and alignment of left, right or center. For example , `<HR size=10 width=80% align=center color=blue>` The HTML tag will display a horizontal rule and height or 10 pixels, with width 80% of the document and will be center aligned on the document and will be of blue color.

7. What is the use of the command bgcolor in HTML?

Ans: The use of bgcolor command in HTML is to let the browser display background color of the webpage. Bgcolor is an attributes of the <BODY> tag. For example <BODY BGCOLOR=colname> color name can be any one of the predefined colours such as blue, teal, aqua, etc... or <BODY BGCOLOR=#rrggb>where rrggb is the hexadecimal representation of the desired color. How over certain points need to be kept in mind while specifying bgcolor. It should go well with the text colour set up for the page and should not distract the reader from the text written on the page.

8. Explain attributes of paragraph element.

Ans: Paragraph tag is used to create a paragraph or a gap in between paragraphs. As in all new word processors, Enter is pressed to create a new paragraph, in the same way <P> tag is used in HTML to create a new paragraph wherevery the process sees the paragraph <P> tag, it inserts a black line and starts a new paragraph. By default the paragraph is aligned to the left however the attributes of paragraph can be used to create alignment left, right or center. The center attributes starts the paragraph from the center of the webpage. For example, <P align=center> </P>. Right attributes starts the paragraph from the right of the webpage, for instance, <P align=right>.....</P>.

@@

Chapter-8

MORE ON HTML

I. MULTIPLE CHOICE QUESTIONS

1. is used to create items of a.....

Ans: (d) both (a) and (d)

2. An ordered list.....

Ans: Can be nested in another ordered list.

3. Bulleted list is know by another name which is

Ans: Unordered list

4. Which of the image file extension cannot be inserted in the webpage?

Ans: (a) .pcd

5. You can insert.....image in your webpage.

Ans: (d) No Limit

6. Which of the following is an attribute of <table> tag?

Ans: cell padding

7. In a webpage, a table is created using.....

Ans: <table> tag

8. Which of the following control allows the user to select multiple values? Ans: Checkbox Control

9. A password box shows the character being typed by user in the form of

Ans: © *

10. To select from three choices, the....Control is a suitable control is a suitable control.

Ans: (a) Drop down menu

11. You can give link of web pages in your home page .

Ans: (d) Unlimited

12. The tag is used to create hyperlinks.

Ans: (a) <a>

13. The <a> tag is called tag.

Ans: (b) Anchor

14. Image can be labelled by..... attribute.

Ans: (d) alt

15. Which of following is not the attribute of img tag?

Ans: © bgcolor

II. SHORT ANSWER QUESTIONS.

1. What is the meaning of list?

Ans: A number of connected items or names written or printed consecutively, typically one below the other is list.

2. What are the types of list?

Ans : There are two types of lists, Ordered list and unordered list

3. What is the difference between ordered list and unordered list?

Ans : Ordered lists are preceded consecutively by numbers or alphabets in an orderly manner such as 1,2,3,... or a,b,c, whereas unordered list is preceded by bullets.

4. What are the types of bullet list?

Ans: The types of bullet lists are disc, circle and square

5. What are the types of numbered list?

Ans : The types of numbered lists are; 'a,b,c' or 'A,B,C' or 'I,II,III' or I,II,III' or '1,2,3'

6. What is the default value of a numbered list?

Ans : The default value of a numbered list is 1,2,3....

7. What is a table row?

Ans : A table row is a group of cells in horizontal direction.

8. How can you draw the border or a table?

Ans : Border can be drawn by using the border attribute in table tag such as <table border=1>and table can be drawn by using the <table>tag.

9. What is meant by cell spacing?

Ans : cell spacing is an attribute of table that defines the width between the cells.

10. What is the use of Anchor tag?

Ans : The uses of the Anchor tag is to create links or hyperlinks in between pages.

11. What do you mean by linking?

Ans : Linking is an important property of HTML where text or images can be linked to another document.

12. What happens when we click on a hyperlink on a webpage?

Ans : When a hyperlink is clicked it takes us to the page or odocument that is linked to.

13. What does IMG and SRC means?

Ans IMG is the tag for inserting an image on a webpage and SRC is an attribute of the IMG tag to specify the source of the image.

14. Write the html code to set the image “pen.jpg” stored in “My pictures” folder in C:/as the background of your web page?

Ans : `<Body background="C:/My pictures/ Pen.jpg">` is the HTML code to insert the background of the web page.

15. Explain height attribute of img element.

Ans : Height attribute of the img element specifies the height of the image. The height may be in the form of integer or as percentage of the windows height. For example: `` or `<imgsrc = pen.jpg height=30%>`

16. Which tag is used to link E-mail address into a web page?

Ans Mailto tag is used to link an E-mail address into a webpage. For example `<Mailto:johnamith@gmail.com>`

17. What do you mean by HTML forms?

Ans : HTML forms are fields on a web page used to collect data from site visitors. The form takes the input from the site visitor and then posts it to a backend application.

18. Define <input> tag.

Ans : The <Input> tag specifies an input field where the user can enter data. The <input> element are used within the form element to declare input controls like text, number, password, check etc...

19. What do you know about href attribute?

Ans : HREF attribute is an attribute of the anchor tag. HREF stands for hyper reference. The HREF attribute sets the URL of the document to be linked.

III. LONG ANSWER QUESTIONS.

1. Which tag and attribute is used to jump to same page?

Ans : In HTML there are two ()

1. Internal linking links to another page in the same directory or to an external web site. Internal linking link to a different section of the same page. The tag and attribute used to move to a new page is `` where “A” is the tag HREF is the hypertext reference. The tag and the attribute used to jump

to another location in the same page is `` Here A is the anchor and NAME attribute is the name of the section of the page where the link refers to.

2. What is the purpose of name and href attribute of `<a>` tag?

Ans: A link is the address to a document or resource on the web. Linking is an important property of HTML. Linking is useful when the web pages are very large and they contain several other information and images. Linking helps in making the webpages short. Linking can be done by using anchor `<A>` tag. The anchor tag starts with `<a>` and ends with ``. The anchor tag uses the href attribute. It means hyper reference. The purpose of href attribute is to set the URL (Uniform Resource Locator) of the document to be linked. For example `` or ``

3. How can you make a link of one web page with another web page within the same computer.

Ans: Linking is possible within pages if the pages are in the same folder or any where saved on the computer on any drive. To link a webpage with another webpage that is on the same computer but in a different folder the complete path of the webpage needs to be specified to the href attribute. For instance, a file to be linked is in the c:\ drive and in My documents folder and the name of the web page is photos.html the HTML tag that will be used is `` text to activate the link ``

4. You want to insert some images in the web page. Which HTML tag help you? Give an example.

Ans: Images give a better look and can speak more than text on a web page. Images can be inserted in a web page very easily. The only thing that needs to be kept in mind is the image to be inserted on the web page needs to be in the same folder of the HTML text file. However, images in different folder and different drive can also be inserted on a web page `` tag to used to insert on image on the web page. Along with the `` TAG THE SRC (source attribute) needs to be specified where the image file resides . for

example . . If the image resides in a different folder then the complete path needs to be assigned.

5. How can you insert some other HTML file? Write the tag used for this purpose.

Ans: Some other HTML text file can be inserted into one HTML by using the ‘frame’ option in HTML. HTML frames are used to divide your browser into multiple sections where each section can load a separate HTML document. A collection of frames in the browser window is known as frameset. The window is divided into frames in the similar way the tables are organized into rows and columns.

The tag that is used for this purpose is <frameset> where its attribute needs to be specified as rows or columns depending upon the web page to be divided into vertically or horizontally. The <frameset> tag is used instead of the <body> tag. Then the <frame tag is used which defines which html page shall open in to the frame. The <frame> tag defines one particular window (frame) within the (frameset). Each <frame> in a <frameset> can have a different attribute, such as border, bg color, scrolling etc.

Eg: <HTML>

<HEAD>

<title>home</TITLE>

</HEAD>

<frameset cols="30%, 50%, 20%"

<frame name "top" src="top.html" />

<frame name "main" src="main.html" />

<frame name "button" src="button.html" />

<noframes>

<BODY>

</BODY>

</noframes>

</frameset>

</HTML>

6. How is it possible to label the image on a web page? Write the tag or attribute required for this purpose.

Ans: To label an image all attribute is used for giving text message for the image. The alt attribute provides an alternative description for the image when the browser is unable to download the image due to large image size or slow internet connectivity. This description is normally not presented to the user, but will be available under certain circumstances. Moreover, some user prefers to surf the web with images turned off. These users will normally see the alt description instead of the image. The alt attribute is required if the href attribute is present. If the image the name specified in the alt attribute will appear on the screen in a small box. The tag that is used is tag and the attribute used is alt: for instance

 if the browser is unable to display the image then then the name tulip flower will be visible on the browser,

7. What are the tags and attributes used for image alignment in a web page?

Ans: Like the text images on the web page can also be aligned by using the appropriate tags in the HTML text. Normally there are three types of image alignment: left, center and right. The tag and attribute used to align the images are: <div align=left> which is by default , <div align=center> which will align the images in the center of the web page and <div align=right> which will align the image to the right side of the web page. This<div> tag needs to be used before the tag. The above mentioned three types of alignment are called horizontal alignment. Similarly vertical alignment also can be performed such as top, middle and bottom.

8. Compare the following:

(i)Table Heading and Table Row

(ii)Rowspan and Colspan

Ans:(i)Table heading: The table heading defines a header cell in an HTML table. Header cells contains header information create with the <TH>

element. Whereas table row is a group of cells in horizontal direction. It contains the data related to the table heading in the cells. <TR> tag is used to create a row in a table

(ii) Rowspan and colspan: Table cells can span across more than one column or rows. The attribute colspan (how many across) and rowspan (how many down) indicate how many columns and rows a cell should take up. In other words Rowspan merges 2 or more cells down in a table whereas colspan merges 2 or more cells across the table.

9. Write steps to change table size.

Ans: Table size can be set based on two options i.e. pixels or percentage.

Steps to set the table size based on pixels are:

```
<HTML>
<HEAD>
<TITLE> TABLE </TITLE>
</HEAD>
<BODY>
<TABLE border=1>
<TR height=70>
<TD> This is the first column
<TD>This is the second column
</TR>
</BODY>
</HTML> (table height and width attribute can be used in table as well as
<TR> element
```

Table width and height can be set using percentage also. For example width=60%

```
<HTML>
<HEAD>
<TITLE> TABLE </TITLE>
</HEAD>
<BODY>
<TABLE border=1>
```

```
<TR height=70%>
<TD> This is the first column
<TD> This is the second column
</TR>
</BODY>
</HTML>
```

10. How can the border of the table be set?

Ans: Table tag can also accept border attribute. One can specify border attribute to the table with border. If border tag is not specified the web page will not display the border if the data is more and is in tabular form. Table boarder can be set by using the following attributes as such<table border=1>

11. Differentiate between cell padding and cell spacing.

Ans: With the cell padding and cell spacing attributes one will be able to adjust the white space in a table. Spacing defines the width of the border whereas padding represent the distance between the cell borders and the contents within. For Example <TABLE BORDER=1 CELLSPACING =5 CELLPADDING=5>.

12. What is a frame? What are the attributes? Explain.

Ans. Frame is an element in HTML that allows dividing a browser window into multiple sections where each section can load a separate HTML document.

Attributes. Moreover, the frame has attributes, such as frameborder, marginwidth, marginheight, name, noresize, scrolling and src, while the frameset has attributes such as cols and rows.

13. How can you insert audio and video in an html file?

Ans. (write down from text book page no. 178 and 179)

CHAPTER-11
SOCIETAL IMPACT OF IT

I. MULTIPLE CHOICE QUESTION

1. Trojan horse is a type of.....

- (a) Backup Utility (b) Antivirus (c) virus
(d) None of these

Ans: © virus

2. A spam is a (an).....

- (a) Unwanted e-mail (b) Is a piece of software
© Is a n antivirus (d) None of these

Ans: (a) Unwanted e-mail

3. To protect a computer system from internet virus..... is used.

- (a) Firewall (b) Trojan (c) Worms
(d) High Level Programme

Ans: (a) Firewall

4. Which of the following is the biggest threat to the computer by bringing the virus in the system?

- (a) Floppy (b) Internet (c) Firewall
(d) None of these

Ans: (c) Firewall

5. An independent computer program that copies itself from one computer to other in a network is called.....

- (a) Worm (b) Trojan (c) Bug (d) Antivirus

Ans: (a) Worm

6. Out of the following, Which one will be altered or modified by a computer virus?

- (a) Operating system (b) Speed Of Network Connectivity
© Application Software (d) All of these

Ans: (d) All of these

7. A spyware software....

- (a) Is an antivirus software (b) Collect information from user's computer sneakly (c) is an e-mail message (d) None of these

Ans: (b) Collect information from user's computer sneakly

8. sort for malicious software, is a software designed to infiltrate a computer system without the owner's informed consent.

- (a) Blog (b) Attachment (c) Spam
(d) Malware

Ans: (d) Malware

9. Which of the following relates with hacking

- (a) Virus spread (b) junk Email (c) To Steal information (d)

Malicious code on the net

Ans: (d) Malicious code on the net

10. IT Act came in existence in the year of

- (a) 2001 (b) 2000 (c) 2005 (d) 2007

Ans: (b) 2000

II. SHORT ANSWER QUESTIONS.

1. What is a virus?

Ans: A computer virus is a malicious programme that self replicates by copying itself to another programme and can infect the computer without the knowledge of the user.

2. What is a worm?

Ans: Worm are malicious software application designed to spread through computer network.

3. What do you know about antivirus software?

Ans: Antivirus software is a program or set of programs that are designed to prevent, search for, detect, and remove software viruses, and other malicious software like worm, Trojans, adware, and it either deletes or quarantines it.

4. What is a Trojan?

Ans: A Trojan horse or Trojan is a type of malware that is often disguised as legitimate software. Trojans can be employed by cyber thieves and hackers trying to gain access to users 'systems.

5. What do you mean by spam?

Ans: Spam refers to the use of electronic messaging systems to send out unrequested or unwanted messages in bulk.

6. Differentiate between hacker and crackers.

Ans: Hackers constantly seek further knowledge, freely share what they have discovered, and never intentionally damage data. A cracker is one who breaks into or otherwise violates the system integrity of remote machines with malicious intent.

7. What is sniffing?

Ans: Sniffing is a process of monitoring and capturing all data packets passing through given network. Sniffers are used by network/system administrator to monitor and troubleshoot network traffic.

8. What do you mean by offsite backup?

Ans: When the backup storage media is kept in a different geographical location from the source this is known as offsite backup.

9. What is the use of firewall?

Ans: A firewall is a system designed to prevent unauthorized access to or from a private network you can implement a firewall in either hardware or software form or a combination of both. Firewalls prevent unauthorized internet users from accessing private networks connected to the internet, especially internets.

10. What is the meaning of integrity?

Ans: Integrity, in the context of computer systems, refers to methods of ensuring that data is real accurate and safeguarded from unauthorized user modification

11. What is confidentiality?

Ans: Confidentiality means non disclosure of information to unauthorized or unwanted person.

12. Name two crimes that are classified under cyber crime?

Ans: Two cyber crimes are (i) Unauthorized access to the web (ii) Frauds related to credit card e-banking

13. What do you know about digital signature?

Ans: A digital signature is basically a way to ensure that an electronic document (e-mail spreadsheet, text file, etc.) is authentic.

III LONG ANSWER QUESTION

1.What is the difference between online and offline backup?

Ans: Backup is the safeguard against unexpected data loss and application error. If the data is lost it can be re-constructed again by use of backup. There are mainly two means of backup i.e Online and offline

The basic difference online backup and offline backup is in online backup the backup is done continuously and frequently to a storage medium that is always connected to a storage medium that is always connected to the source being backed up. In this type the storage medium is located offsite and connection and can be accessed from anywhere with internet connectivity whereas offline backup is a way to store files from a network so that they will be accessible when the user is not connected to the network they are stored in. The term 'offline backup' refers to any form of data storage that is both local and offline. This includes, but is not limited to, DVDs, CD8, Blu-ray, tape drives, external hard drives, USB thump drives, and memory cards.

2. Write short note on the following : (I) Rootkit (II) Identity Theft (III) Sniffing

Ans: (i)Rootkit: A rootkit is a piece of software that once installed on a user's computer opens up a port to allow a hacker to communicate with it and take full control of the computer then the user and allows the hackers to control the hardware of the victim's computer.

(ii) Identity Theft: Identity theft is a form of fraud in which someone pretends to be someone else by assuming that person's identity in order to access reusing sources or obtain credit or other benefits in that person's name. Organization or individual who are defrauded by identity thief can suffer adverse consequences and losses.

3. Which security measures can be used to protect network from sniffing?

Ans: To protect a network from sniffing, these are some of the security measures that can be used:

- i. Use of firewall filtering rules to control the inflow of information on a network. The filter rules checks the packets from external host and is stopped by the firewall.
- ii. Use of firewall to translate the internal host and address of any outgoing traffic to the name and address of the firewall. This hides critical information from outside users and sniffing programs.
- iii. Users needs to be educated about the risk of using internal password and user IDs to access external host. Attackers could capture information from the external host and use it if they successfully break through the system.

4. What do you mean by data security?

Ans: Data security is a process of protecting files, databases, and accounts on a network by adopting a set of controls, applications and techniques that identify the relative importance of different datasets, their sensitivity, regulatory compliance requirement and then applying appropriate protections to secure those resources. In other words any computer that is connected to the internet is exposed to many risks from other computer users. A user may be unaware but his/her computer is receiving information from other computer. Some Internet Security task are automatically performed by the operating system but the other needs to be managed and monitored by the user effectively. The first line of defense is enabling firewall. Secondly virus and spyware protection software.

5. Mention some security requirements under e-commerce.

Ans: As e-commerce activities are becoming more and more popular, the threats of misuse is also increasing. Hackers gain illegal access to the computer and violate privacy and destroy the data of the computer system.

Some security requirement under e-commerce are:

- The Encry Approach.
- Secure Socket Layer (SSL)
- Secure Hypertext Transfer Protocol (SHTTP)
- Secure Electronic Transaction (SET)
- Payment Card Industry (PCL) Compliance.
- Safe Login Screen.
- Digital signature.

6. Explain e-mail related crimes.

Ans: E-mail is presently a fastest means of communication in IT. However, there are certain e-mail related crimes that are prevailing. Some e-mail related crimes are:

- i. E-mail spoofing: E-mail spoofing refers to e-mail that appears to have originated from one source whereas it is actually sent from another source.
- ii. E-mail spamming: E-mail spamming refers to sending e-mail to thousands of users –similar to a chain letter.
- iii. Sending malicious code through e-mail: E-mail are used to send virus, Trojans etc. through e-mail as an attachment or by sending a link of website which on visiting downloads malicious code
- iv. E-mail bombing E-mail bombing is characterized by abusers repeatedly sending an identical e-mail messages to a particular address.

7. How are virus different from worms?

Ans: Computer worms are malicious software application designed to spread through computer network. It is also one form of malware along with virus and Trojan. Worms are inadvertently installed by the user. Once installed the worm spontaneously generates additional e-mail message containing copies of worm. A worm self replicates computer program. Due to this reason it takes lots of space in the hard disk and consumes more CPU usage and network bandwidth that makes PC slow. whereas a computer virus is also a malicious program that self-replicates by copying itself to another program. Computer virus infects vulnerable system and gains control over the computer system. Steals data or damages and files. A virus usually attaches itself to and becomes part of another executable program.

8. Explain two methods to secure your computer from internet threats.

Ans: The internet is the ever-present threat to computer. Even harmlessly browsing through sites may get one's computer infected with virus or spyware. Some methods to secure one's computer from internet threats are:

- (i) Routers and firewall: A router acts as the best kind of firewall. It protects one from all kind of virus and keeps the information safe. High end routers are able to scan and at least blocks or slow down the hackers. Apart from the hardware there are lots of software available to avoid intrusion to the system.
- (ii) Virus Scanner: An anti virus program or scanner (reliable and not a free version because at times some antivirus software can act as a spyware) can be used to scan or run in the background to stop any malicious infiltration to the computer.
- (iii) Enable the operating system's firewall to secure the incoming and outgoing data safe.
- (iv) Install good and effective spyware software that will scan and eliminate spyware. Take care while downloading and installing software because it may include spyware as bundled.

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