

## **Internet Security**

Internet Security refers to computer especially when we are online on Internet. It often involves browser security but also network security.

Different types of cyber attacks which are unethical practices in field of IT. Different forms of attacks are:

- \* Computer Virus

- \* Worms

- \* Spamming

This is malicious program used by hackers which deletes all the data from the system.

- \* Trojan Horses

- \* Spyware

- \* Adware

- \* Sweeper

- \* Phishing

- \* Password Guessing

1. Computer virus – A program or code which replicates, and then infect another program boot sector, partition sector or document that supports macros by inserting sector or document that supports macros by inserting itself or attaching itself to that medium is called a Virus.

### **There are three types of viruses**

- Boot Sector Virus: It install itself on the beginning track of a hard drive.
- File infector:- It attach themselves to a program file.
- Macro Virus: Infect data file.

## **Characteristics of Computer virus**

- It requires a host program as a carrier
- It is activated by an external action
- It is able to replicate

## **Damage Caused by Virus**

- \* Some viruses can give fake pop ups which tell to buy non-existent antivirus software.
- \* Some can monitor what you are doing
- \* Some can slow down computers performance

## **Trojan Horse**

- \* It is a program that neither replicates nor copy itself, it appears to be harmless but actually performs malicious function deleting files, Deleting data, Blocking data, Modifying data, Copying data.
- \* Trojan horse is code hidden in a program such as game or spreadsheet which looks safe to run but has hidden side effect.

## **How Trojan horses spread**

- \* They generally spread through e-mail and exchange of disk and information between computers.

## **Limitations**

- \* Since Trojan Hourse malware is not technically viral, it cannot self-replicate and requires a certain level of direct user interaction to function.

## **Worm**

A computer worm is a standalone malware computer program that replicates itself in order to spread to other counters. It often uses a computer network to spread itself, relying on security failures on the target computer to access it.

### **Damage cause by worm**

- \* Disrupt services
- \* Create system management problems
- \* It can scan for passwords, other loop holes and then send information back to attacker

### **Spamming**

Sending bulk mail by an identified or unidentified source. Spam is the electronic equivalent of 'junk mail which is unsolicited, usually sent in bulk transmissions of thousands or even millions of messages at a time and significantly obstructs the flow of legitimate internet traffic around the world.

### **Malware**

It refers worms, virus, spyware. It is unwanted software which someone wants to run on computer, it makes computer to behave in a way in which you do not want your computer to work like that.

### **Spyware**

It performs the additional function of surreptitiously monitoring details of computer usage and website activity, making this information available without the knowledge of the user.

### **Adware**

These programs consume network bandwidth, by delivering unwanted ads to computer called pop-ups.

### **Phishing**

Criminal fraudulent of attempting to get sensitive information such as user name, password, account data.

### **Password Guessing**

Many hackers or crackers guess password of system account and gain entry into remote computer system, and cause damages in one or other form.

### **Best Practices for Security**

#### **Password**

1. Use strong passwords, with combination of letters in both cases, numbers and special characters which makes a password difficult to crack or guessed by other.
2. Password length should be at least 10-15 characters.
3. Avoid using same password for multiple sites.

#### **Regular Data Backup**

Backing up files can protect against accidental loss of user data, database corruption, hardware failures and even natural disasters. A copy of data that can be used to restore and recover the data is called a backup.

## **Encrypt Data**

It is the conversion of data into a form called CIPHERTEXT which cannot be easily understood by unauthorized person.