

## COMPUTER JS3 A – C

### WEEK 3

#### TOPIC:- COMPUTER VIRUS

#### OBJECTIVES:-

- Define Computer Virus
- List the types of computer virus
- List examples of computer virus
- State advantages and disadvantages of the computer virus.

A computer virus is a computer program that can copy itself and infect a computer without the permission or knowledge of the owner. A Computer virus instruct the computer to perform a task which the user does not want it to perform.

Viruses can be destructive, they can format hard drives or delete files and render the computer useless.

A virus can only spread from one Computer to another when it's host is taken to the uninfected Computer e.g

When a user sends a file over the internet or when it is carried on a removable medium such as floppy disk, CD, DVD, or USB drive.

#### Types of Computer Virus

There are different types of Computer Virus.

- Stealth Virus
  - Polymorphic Virus
  - Multipartite virus
  - Macro virus
  - File virus
  - Boot sector virus
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- Stealth virus:- This virus hides it's presence by making an infected file appear not infected.
  - Polymorphic Virus:- This Virus is very difficult for antivirus scanners to detect, it can encrypt it's code in different ways so that it appear differently. (I.e) it changes codes whenever it passes to another computer.
  - Multipartite virus:- The virus affects both the files and the boot sector. It infect the program files and when the infected file is executed, the viruses infect the boot sector. When the computer is boot the next time, the virus start manifesting by infecting other files on the disks.
  - Macro virus:- The virus affects Microsoft office application such as word processing or Excel.
  - File virus:- This kind of virus infects applications. The infected applications spread the virus by infecting other documents whenever they are open or run.

- Boot Sector virus:- This replaces or implants itself in the boot sector area of the hard drive or any other storage disk. This kind of virus can prevent the hard disk from booting.

Examples of computer virus:-

1. Trojan horse
2. Alabama virus
3. Stone virus
4. Jerusalem virus
5. Christmas Virus
6. Laboratory virus
7. Logic bomb virus
8. sleeper virus
9. Spyware virus
10. Adware Virus.

Advantages of computer virus

1. Money is generated from repairing computers affected by virus.
2. They led to the development of antivirus software.

Disadvantages of computer virus

1. It can remain undetected
2. It can easily spread from one Computer to another
3. It affect the efficiency of the computer
4. It causes loss of data
5. It makes Computer crash and displays disturbing messages.

Evaluation/Assignment

1. Explain the computer virus.
2. State any four disadvantages of Computer virus
3. List any 4 examples of Computer virus
4. List and explain any three types of Computer Virus.

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WEEK 4

TOPIC:- Sources of Computer Virus, Signs of Virus Infection/Attack.

OBJECTIVES:-

- Mention the sources of computer Virus
- State the signs of virus infection/Attack and the protection
- List some of the antivirus software.

Sources of Computer Virus

- Internet download:- Downloaded files from the internet sometimes spread Computer virus
- Illegal software duplication:- There are so many freeware software which are infected by virus and copying them spread the virus.
- E-mail Attachment:- E-mail attachments are the most easiest mode of virus transmission . Once an infected file or application is open, the code copies itself into a file on the computer system.
- Infected Storage medium:- A computer system becomes infected with virus when it copies applications or files using diskettes, flash drive, CD-ROM, or hard disk.

#### Signs of virus infection/ Attack

1. The computer begins to run slowly.
2. Usual messages and graphics appear on the screen for no reasons
3. Some of the program or data files either got corrupted or become difficult to locate.
4. Unknown files or sub-directories are created
5. The sizes of total and free memory are changed unexpectedly
6. The sizes and dates of executable files change automatically
7. The disk column label changes mysteriously
8. The Hardware device begin to exhibit unusual behavior
9. The computer fails to boot
10. There is incomplete saving of files
11. Tiny dots appears and wonder on the screen.

#### Protection against Computer virus

- Avoid opening unexpected email attachment
- Scan internet files before downloading
- Install reliable antivirus software and update it regularly
- On removable disk, always scan removable ( flash drive, diskettes)

#### Antivirus software

1. Norton anti virus
2. Dr. Solomon
3. Avast
4. Bit defender
5. Kas persky
6. Panda security
7. Cisco security agent.

#### Assignment

1. Give three sources through which a computer can be infected with a virus.
2. State three symptoms/warning signs of virus attack
3. List three Computer antivirus software available
4. How do you protect your computer against virus.

