

GRADE: 7

SUBJECT: COMPUTER SCIENCE

DATE: [Insert Date]

ANSWER SHEET

## SECTION A

Q1. CHOOSE THE CORRECT ANSWER:

1. b) A type of software that harms the computer
2. a) Melissa
3. b) Creeper
4. a) Malware disguised as a useful program
5. a) Email attachments
6. b) Multipartite Virus
7. c) Faster internet speed
8. b) Vital Information Resources Under Seize
9. b) Gains unauthorized access to systems
10. b) Blocks access and demands money

Q2. USE THE GIVEN CLUES AND ANSWER THE FOLLOWING:

1. Macro Virus
2. Keylogger
3. Ransomware
4. Trojan Horse

## SECTION B

Q3. ANSWER THE FOLLOWING:

1. A computer virus is a type of malicious software that, when executed, replicates itself by modifying other computer programs and inserting its own code.
2. A Boot Sector Virus is a type of virus that infects the boot sector of a computer's hard drive or removable storage devices. It activates when the system is booted.

3. A Worm is a standalone program that replicates itself to spread to other computers, while a Virus requires a host file to spread.
4. Examples of Trojan Horse viruses include Zeus Trojan and Emotet.
5. Symptoms of a virus attack include slow computer performance, frequent crashes, and unauthorized pop-ups.
6. Spyware secretly gathers information about a user's activities and sends it to a hacker, often leading to privacy breaches.
7. Email attachments may contain hidden malware or scripts that execute harmful activities upon opening.
8. Two methods to prevent virus attacks are installing antivirus software and avoiding suspicious downloads.
9. Antivirus software scans, detects, and removes malicious programs from a computer system.
10. Ransomware encrypts files on a computer and demands payment for unlocking them.
11. Viruses spread through pen drives when an infected file is executed on another system.
12. A hacker is a person who gains unauthorized access to systems, sometimes for malicious intent.

#### Q4. GIVE TWO DIFFERENCES BETWEEN:

- a) **Virus and Worm:** A Virus requires a host file, while a Worm spreads independently.
- b) **Trojan Horse and Spyware:** A Trojan Horse disguises itself as legitimate software, while Spyware secretly collects data.
- c) **Antivirus and Firewall:** Antivirus detects and removes malware, while a Firewall blocks unauthorized network access.
- d) **Boot Sector Virus and Multipartite Virus:** A Boot Sector Virus only affects the boot sector, whereas a Multipartite Virus affects both boot sector and files.
- e) **Adware and Ransomware:** Adware displays unwanted ads, while Ransomware locks files and demands payment.

## SECTION C

#### Q5. ANSWER IN DETAIL:

1. Types of computer viruses:

- **Boot Sector Virus:** Infects the boot sector (e.g., Michelangelo).
- **Macro Virus:** Infects documents (e.g., Melissa).
- **Trojan Horse:** Disguised as legitimate software (e.g., Zeus).
- **Worms:** Self-replicating malware (e.g., Blaster).
- **Ransomware:** Encrypts files and demands ransom (e.g., WannaCry).

## 2. How malware enters a computer:

- Infected email attachments
- Unsecured websites and downloads
- USB devices
- Social engineering attacks
- Software vulnerabilities

## 3. How antivirus software works:

- Scans files and memory for known malware signatures
- Uses heuristic analysis to detect unknown threats
- Quarantines and removes detected threats
- Regular updates keep it effective against new malware

## 4. Preventive measures:

- Install and update antivirus software
- Avoid clicking on unknown links and attachments
- Enable firewalls
- Regularly update the operating system
- Keep backups of important data

## 5. Impact of Ransomware:

- Loss of critical data
- Financial loss due to ransom demands
- Business disruptions
- Possible data leaks
- Legal and compliance issues

