Fun Zone
Game Activity

| AVG | McAfee | Norton |

Lab Session

1. Trojan Horse: Trojan Horse is a malware program which allows the unauthorized users to access the remote computer.
2. Resident Virus : It is a type of virus which once enters into the computer system becomes the permanent resident of the main memory.
3. Polymorphic Virus: Polymorphic virus is a dangerous virus which can create its copies and changes its signature everytime it replicates and it becomes difficult to detect it.

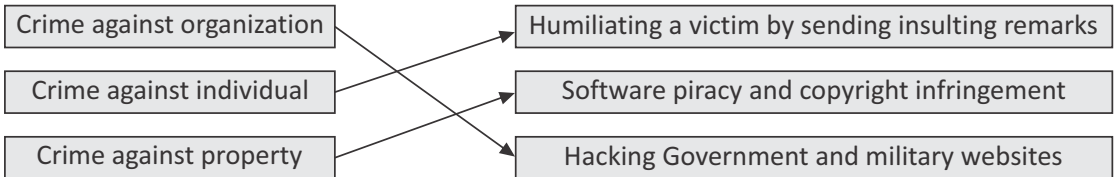**Higher Order Thinking Skills**

Rootkit is a malicious software program which give unauthorized users access to a computer or other software. It is difficult to detect this program in an infected computer.

Project work

Do it yourself

8. Cyber Threats and Security

Check Your Learning

Crime against organization	Humiliating a victim by sending insulting remarks
Crime against individual	Software piracy and copyright infringement
Crime against property	Hacking Government and military websites

EXERCISES

A. **Fill in the blanks with the help of words given in the box.**
   1. Spoof   2. Cyber bullying   3. Pharming   4. Hacking   5. Biometrics

B. **Write 'T' for true and 'F' for false statements.**
   1. F   2. T   3. F   4. T   5. F

C. **Tick (3) the correct option.**
   1. c   2. b   3. b   4. a   5. b

D. **Answer the following questions.**
   1. It is important to secure our computer to keep the information protected. A break in computer security may cause harmful and potentially major issues. Proper computer security helps prevent viruses and malware which allows programs to run quicker and smoother. The various security threats are:
      a. Installing unverified freeware
      b. Opening emails from unknown sender
      c. Using removable disks without scanning

Therefore, it is required to keep your system safe which can be done by keeping the security software updated, enable a firewall, adjust the privacy and security settings of a browser, install antivirus and antispyware software, keep your system protected by using password.

2. Cyber crime is an unlawful activity done through internet. It may include identity theft in which somebody steal your email-id or password and use it to send fake emails to others like winning lottery or product etc. It may also include credit card account thefts, internet frauds, forgery, harassing others and much more which comes under the jurisdiction of Indian Penal Code.

   Cybercrime can be categorized into three types:
   a. Crime against an individual person   b. Crime against property
   c. Crime against an organization/society

3. Cyber Bullying is an act to harass or harm a person by posting insulting remarks against gender, race, religion or nationality and sending threatening messages by emails, posting embarrassing photos, emails to hurt someone to threaten him. The attacker is often anonymous or unknown and there is no one to fight back against.

   Cyber Stalking is a more specific form of Cyberbullying. It is the use of the internet and other technology to harass someone by spying on them electronically. Most social media websites have made it easier to keep an eye on someone's activities. The purpose of Cyber Stalking is to gather information about the person or humiliate the victim or his family by posting false information about him.

4. Phishing is a form of fraud in which an attacker acts like a reputable entity or person in email or other communication channels. The user is asked to visit a website in which he needs to enter his personal information like username, password, credit card details etc. Like, sometimes it happens that you get a mail like you are winning an award or money type mails, in which you are asked to enter your login details or credit card details or OTP (One Time Password). In this way, the operators of the fake website conduct crimes in your name after stealing your identity like to attack on the bank property and steal money. While using the internet, you may find various counterfeit websites that resembles to the authorized sites, in which when you enter the personal and confidential details, are recorded on the wicked person's system and he can use these for his benefits.

5. Stealing someone's personal information is called Identity Theft. It is a major issue for people who use internet for online shopping, cash transactions and banking services. An imposter steals the identity of another person like name, photograph, signature, email id, id card, etc. and use it for nasty reasons. By using the identity details of another person, he can steal his property, purchase something on his name, send wicked messages from his id, commit crimes using his name and photograph, share his identity and phone number publicly, which may cause big harm to his reputation. The stolen information generally includes the person's name, date of birth, account number, credit/debit card number, ATM pin etc.

6. While creating a password, a person should keep the following points in mind.
   a. A password should start and end with special characters.
   b. It should be more than 8 characters.
   c. It should not be common like date of birth or on pet name.
   d. It should be strong and unique.
7. Firewall is a security system which is used to protect computer by preventing unauthorized users from accessing the system through internet. It can either be hardware or software or combination of both. It is enacted on the gateway of a network and follows a particular set of rules defined by user or network administrator. On the basis of these rules, it checks the incoming and outgoing network traffic. And allows only the authorized packets to enter into the network.
8. Encryption is the process of converting information of data into a code, especially to prevent unauthorized access. Encryption software is used to create the encrypted text called 'Cipher text'. To read an encrypted message, it has to be decrypted with the same software on the receiver's side. This process is called Decryption.

E. Application-based questions.
1. Mohit needs to install some antivirus software like AVG or Norton to remove the virus and protect the system.
2. To send the information securely, Mehul should encrypt it.
3. Geetika should discuss the situation with her parents and file a complaint against the person.

F. Explain the following terms.
1. In Biometrics, a person is verified by means of his unique biological or physical characteristics. It recognizes a person by retinal scan, finger prints, voice recognition etc.
2. A cookie is a text message given to web browser by a web server. The web browser saves this user-specific data in a text file. This file is called a cookie.
3. In computer terminology, backup refers to the process of making copies of data or data files to use in the event the original data files are lost or destroyed.

Fun Zone
Game activity   **Lab Session**
1. Cyber Stalking   2. SMS Spoofing   3. Pharming   Do it yourself
Higher Order Thinking Skills
1. (i), (iii), (iv)
2. Hacking means unauthorized access to data in a computer system. Hackers are those people who are having full knowledge of technology but they are using their knowledge for wicked purposes. They used to hack the computers in banks, government organizations, or industries and hack their databases to steal important information.
   Cracking is same as hacking but with criminal intentions. A cracker is someone who breaks into a network, bypasses passwords or licenses in computer programs or in other ways intentionally breaches computer security.
Project Work
Do it yourself

9. Google Apps

Check Your Learning
1. Google Sheets   2. Google Slides   3. Google Docs

EXERCISES

A. Fill in the blanks with the help of words given in the box.
1. Gmail   2. Google   3. Real time   4. Maps   5. Desktop

B. Write 'T' for true and 'F' for false statements.
1. T   2. T   3. F   4. T   5. T

C. Tick (3) the correct option.
1. b   2. c   3. b   4. a   5. b

D. Answer the following questions.

1. An app is an application which is a software program designed to perform a particular task. An app that can run on your mobile phone, is called Mobile apps. An app that can run on other devices like PC, laptop, desktop etc. is called Desktop app. An app that can run on remote server is called Web app.

2. Google is an American multinational software company which is famous for its search engine. It also focuses in search engine technology, online advertising, computer software, e-commerce, cloud computing etc.
   To search information on Google search engine:
   a. Open Google by typing **www.google.com** in the URL of a web browser.
   b. Type keyword related to the search in Search box and press Enter key.

3. Gmail is one of the most commonly used mailing apps which is easy to access through the web browser over the internet. This app is used to send and receive mails to any other person or group of persons free of cost. It can be used to send images, videos, documents or other files as an attachment.

4. Google provides a cloud storage to its users. Users can upload files on the remote server and can also download files from it. It allows multiple users to access the same file simultaneously from different locations. To access these files, you need an authority to do so.

5. Google Docs is a web-based word processing software, works same like MS Word. It can be used to create, edit and store the documents. But other word processing software like MS Word are used offline on your computer system whereas Google Docs is a web-based software which allows you to use this software online and there is no need to download or purchase this software.

6. Steps to create a new presentation in Google Slides are:
   a. Open **Google** and click on **Google Apps**.
   b. Select **Slides** option.
   c. A **Google Slides** window appears on the screen. Click on **Blank** option.
      A new blank document window named "**Untitled presentation**" appears on the screen, which can be renamed.
   d. Select any theme from the right pane and it will be applied to the current presentation.

7. Google Sheets is a web-based spreadsheet program which works similar to Excel sheets. It is used to organize the data in tabular form. In Google Sheets, you can create a spreadsheet, update, modify and analyse it which can also be shared with other people. It also provides various functions, formulas and calculations which can be performed on data stored in it.

8. YouTube is a video sharing app which is provided by Google. This app can be used to upload or download videos, watch videos, comment on them, share and like them.

E. Application-based questions.

1. Tania can access that link just by clicking on it.

2. Pooja can share her app on YouTube.

F. You have worked with Word and have used Google Docs also. Can you find and write down the differences between these two software?

Word	Google Docs
Word is a word processing software which is used to create and edit documents. But it is used offline on computer system.	Google Docs is a word processing software which is used to create and edit document just like Word. But it is used online.
It needs to be purchased or downloaded to use this software.	It does not need to be purchased or downloaded. You can use it online.
The documents created in Word are stored in the computer system.	The documents created in Google Docs are stored in computer system and on cloud as well.
You can use this software only in your system and there is no need of internet connection to use it.	You can use this software at anytime, anywhere using any device provided that you must have an internet connection.

Fun Zone

Game Activity

Facebook	WhatsApp	Instagram	Snapchat

Lab Session

Do it yourself

Higher Order Thinking Skills

Google Classroom is a learning platform used for teaching and learning. It can be used to streamline assignments, boost collaboration, and foster communication.

Project Work

Do it yourself

10. Programming with Python

EXERCISES

A. Fill in the blanks with the help of words given in the box.

1. Editor   2. .py   3. F5   4. Equal to (=)   5. Input()