

XII IP SOCIETAL IMPACTS NCERT SOLUTIONS

1. After practicals, Atharv left the computer laboratory but forgot to sign off from his email account. Later, his classmate Revaan started using the same computer. He is now logged in as Atharv. He sends inflammatory email messages to few of his classmates using Atharv's email account. Revaan's activity is an example of which of the following cyber crime? Justify your answer.
 - o Hacking **Identity theft** – As he used someone's account and sent inflammatory email messages.
 - o Cyber bullying Plagiarism
2. Rishika found a crumpled paper under her desk. She picked it up and opened it. It contained some text which was struck off thrice. But she could still figure out easily that the struck-off text was the email ID and password of Garvit, her classmate. What is ethically correct for Rishika to do?
 - o **Inform Garvit so that he may change his password.**
 - o Give the password of Garvit's email ID to all other classmates.
 - o Use Garvit's password to access his account.
3. Suhana is down with fever. So, she decided not to go to school tomorrow. Next day, in the evening she called up her classmate, Shaurya and enquired about the computer class. She also requested him to explain the concept. Shaurya said, "Mam taught us how to use tuples in python". Further, he generously said, "Give me some time, I will email you the material which will help you to understand tuples in python". Shaurya quickly downloaded a 2-minute clip from the Internet explaining the concept of tuples in python. Using video editor, he added the text "Prepared by Shaurya" in the downloaded video clip. Then, he emailed the modified video clip to Suhana. This act of Shaurya is an example of —
 - o Fair use Hacking **Copyright infringement**
 - o Cybercrime
4. After a fight with your friend, you did the following activities. Which of these activities is not an example of cyberbullying?
 - o You sent an email to your friend with a message saying that "I am sorry".
 - o You sent a threatening message to your friend saying "Do not try to call or talk to me".
 - o **You created an embarrassing picture of your friend and uploaded on your account on a social networking site.**
5. Sourabh has to prepare a project on "Digital India Initiatives". He decides to get information from the Internet. He downloads three web pages (webpage1, webpage 2, webpage 3) containing information on Digital India Initiatives. Which of the following steps taken by Sourabh is an example of plagiarism or copyright infringement? Give justification in support of your answer.

- o He read a paragraph on "Digital India Initiatives" from webpage 1 and rephrased it in his own words. He finally pasted the rephrased paragraph in his project. – **Paraphrasing**, using someone's ideas from the internet and writing them in their own words by citing original source.
- o He downloaded three images of "Digital India Initiatives" from the webpage He made a collage for his project using these images. – **Copyright Infringement**, as he downloaded and used the images which may be copyrighted materials.
- o He downloaded the "Digital India Initiative" icon from web page 3 and pasted it on the front page of his project report. – **Copyright Infringement**

6. Match the following:

Column A	Column B
Plagiarism	Fakers, by offering special rewards or money prize asked for personal information, such as bank account information
Hacking	Copy and paste information from the Internet into your report and then organize it
Credit card fraud	The trail that is created when a person uses the Internet.
Digital Foot Print	Breaking into computers to read private emails and other files

7. You got the below shown SMS from your bank querying a recent transaction. Answer the following —

- a) Will you SMS your pin number to the given contact number? – No, we should not provide any confidential information like pin number or password to anyone.
- b) Will you call the bank helpline number to recheck the validity of the SMS received? – If it is required then otherwise it is not necessary.

8. Preeti celebrated her birthday with her family. She was excited to share the moments with her friend Himanshu. She uploaded selected images of her birthday party on a social networking site so that Himanshu can see them. After a few days, Preeti had a fight with Himanshu. Next morning, she deleted her birthday photographs from that social networking site, so that Himanshu cannot access them. Later in the evening, to her surprise, she saw that one of the images which she had already deleted from the social networking site was

available with their common friend Gayatri. She hurriedly enquired Gayatri “Where did you get this picture from?”. Gayatri replied “Himanshu forwarded this image few minutes back”.

Help Preeti to get answers for the following questions. Give justification for your answers so that Preeti can understand it clearly.

- a) How could Himanshu access an image which I had already deleted? – When you perform any transaction on the internet it leaves a digital footprint. There are few websites and resources that can be accessed to get the deleted items.
- b) Can anybody else also access these deleted images? Yes, all marked friends and tagged individuals can see them.
- c) Had these images not been deleted from my digital footprint? There are certain data which remain in digital footprint even files are deleted, cannot be deleted from my digital footprint.

9. The school offers wireless facility (wifi) to the Computer Science students of Class XI. For communication, registered URL schoolwifi.edu. On 17 September 2017, the following email was mass distributed to all the Computer Science students of Class XI. The email claimed that the password of the students was about to expire. Instructions were given to go to URL to renew their password within 24 hours.

- a) Do you find any discrepancy in this email? – The general email format contains sender information on top. This information contains sender’s name and sender’s e-mail id. Then Subject line is missing.
- b) What will happen if the student will click on the given URL? – It will redirect the user to change the password. This is now a secure URL so the information can be open to anyone so it can be hacked or stolen from the database.
- c) Is the email an example of cybercrime? If yes, then specify which type of cybercrime is it. Justify your answer. – Yes, it can be an example of cybercrime as it is a phishing activity.

10. You are planning to go for a vacation. You surfed the Internet to get answers for the following queries, Which of your above-mentioned actions might have created a digital footprint?

- a) Weather conditions – Weather conditions do not store the information related to the user so do not create any digital footprint.
- b) Availability of air tickets and fares – It will create a digital footprint because it collects data related to customer and ticket details.
- c) Places to visit – The places to visit on google map is creating a digital footprint in your profile.
- d) Best hotel deals – This will also ask data from user and create a digital footprint.

11. How would you recognize if one of your friends is being cyberbullied?

- a) Cite the online activities which would help you detect that your friend is being

cyberbullied? – If someone is causing humiliation to my friend through hateful comments on the social networking sites then we know that he/she is being bullied

b) What provisions are in IT Act 2000, (amended in 2008) to combat such situations. – Section 66A in the amended IT Act deals with these crimes

12. Write the differences between the following –

- a) Copyrights and Patents
- b) Plagiarism and Copyright infringement
- c) Non-ethical hacking and Ethical hacking
- d) Active and Passive footprints
- e) Free software and Free and open source software

Copyrights	Patents
Copyright refers to legal rights to the creator for their original works like writing, photograph, audio recordings, video, sculptures, architectural works, computer software, and other creative works like literary and artistic work.	A patent is usually granted for inventions. Unlike copyright, the inventor needs to apply (file) for patenting the invention.
They are automatically granted to creators and authors.	When a patent is granted, the owner gets an exclusive right to prevent others from using, selling or distributing the protected invention.
Copyright law gives the copyright holder a set of rights that they alone can avail themselves legally and rights include the right to copy (reproduce) a work, right to create derivative work, right to distribute copies of the work to the public, right to publicly display or perform the work.	A patent gives full control to the patentee to decide whether or how the invention can be used by others.

Plagiarism	Copyright infringement
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Presenting someone else's idea or work as one's own idea or work is called plagiarism.	Copyright infringement is when we use other person's work without obtaining their permission to use or we have not paid for it, if it is being sold.
If we copy some contents from Internet, but do not mention the source or the original creator, then it is considered as an act of plagiarism.	Suppose we download an image from the Internet and use it in our project. But if the owner of the copyright of the image does not permit its free usage, then using such an image even after giving reference to the image in our project is a violation of copyright.
It is a serious ethical offense and sometimes considered as an act of fraud.	Check the copyright status of writer's work before using it to avoid copyright infringement.

Ethical hacking	Non-ethical hacking
The hacking which is done with the positive intent is known as ethical hacking.	The hacking, that is done with the intention of stealing information and unauthorized access of data and damage or bring down the system.
Ethical hacking helps in improving the security and loopholes in the system.	The primary focus of non-ethical hacking is security cracking and stealing sensitive data.
Ethical hacking prepared the owner to save data against cyber-attack.	Non-ethical hacking is the process that tries to steal sensitive data using identity theft, monetary gain, or any other purpose.

Active footprints	Passive Footprint
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Active data traces are the ones that the user leaves intentionally.	Data traces connected to an individual are left by others or gathered through activities that the user has done.
Ex. Facebook, Twitter and blog posts	Ex. Website visits and actions, searches and online purchases create passive footprints

Free software	Free and open-source software
They are free of cost	They may free or minimal charges to use them
Free software provides freedom to run, share and modify software besides getting regular updates.	Free and open-source software provides software code to open for anyone to access, modify, correct, and redistribute the copies.

13. If you plan to use a short text from an article on the web, what steps must you take in order to credit the sources used? You need to put citation specifying the website name from where the content has been used.

14. When you search online for pictures, how will you find pictures that are available in the free public domain. How can those pictures be used in your project without copyright violations?

Follow the below given steps to make pictures available for free from copyright violations.

Open [Google](#) in Chrome browser

Now type the required keywords

Click on Settings → Advanced Search from the bottom right corner.

Now scroll down the page and find the option usage rights

Choose the option free to use, share or modify option.

Now click on advanced search and do the needful for images.

15. Describe why it is important to secure your wireless router at home. Search the Internet to find the rules to create a reasonably secure password. Create an imaginary password for your home router. Will you share your password for a home router with the following people. Justify your answer.

a) Parents b) Friends c) Neighbours d) Home tutors

Other than parents the password should not be shared with anyone Rules to create secure password:

Should not be nick names of family member or pet names

Must be a combination of alphanumeric with special symbols too
Should not include dob/ date of anniversary or things which can be commonly guessed

16. List down the steps you need to take in order to ensure —

a) Your computer is in good working condition for a longer time. – Regular antivirus updates, update software and do regular maintenance, keep it clean it dustfree, keep in normal temperatures, switching it off once a day etc.

b) smart and safe Internet surfing. – Visit only https sites, don't remain login at all times, antivirus updates, use of strong passwords, think twice before feeding in your personal details on any web sites, do not open any mail from unknown sender etc

17. What is data privacy? Websites that you visit collect what type of information about you?

The data collected can include– what device you're using, which advertisements you've clicked on, browsing activity across different sites, even IP address to determine ones location and more.

18. In the computer science class, Sunil and Jagdish were assigned the following task by their teacher.

a) Sunil was asked to find information about “India, a Nuclear power”. He was asked to use Google Chrome browser and prepare his report using Google Docs.

b) Jagdish was asked to find information about “Digital India”. He was asked to use Mozilla Firefox browser and prepare his report using Libre Office Writer. What is the difference between technologies used by Sunil and Jagdish?

Chrome and google docs are freewares Whereas Mozilla Firefox browser and libre office are open source softwares. Refer the deferentiate question for more.

19. Cite examples depicting that you were a victim of following cyber crime. Also, cite provisions in IT Act to deal with such a cyber crime.a) Identity theftb) Credit card account theft – Both Under section 66C of the IT Act 2000 Q20.

20. Neerja is a student of Class XI. She has opted for Computer Science. Neerja prepared the project assigned to her. She mailed it to her teacher. The snapshot of that email is shown below.

Find out which of the following email etiquettes are missing in it. Justify your answer.

a) Subject of the mailb) Formal greetingc) Self-explanatory termsd) Identity of the sendere) Regards All are mssing.

21. Sumit got good marks in all the subjects. His father gifted him a laptop. He would like to make Sumit aware of health hazards associated with inappropriate and excessive use of laptop. Help his father to list the points which he should discuss with Sumit. Sumit must be made aware of the

following points regarding the aftermath of excessive use of technologya) Strained Visionb) Muscle and joint painc) Too much co-dependenced) Failing memorye) Sleep deprivationf) Internet is very distracting, eats away lot of time