Social Impacts of IT

Very Short Answer Type Questions

Question 1:
What are the main functions related to information?

Answer:
Following are the three main functions related to information:

1. Collecting information
2. Storing information
3. Distributing information

Question 2:
Define the term plagiarism.

Answer:
Stealing someone else's ideas or information and presenting them as your own is called plagiarism.

Question 3:
"With the increasing importance of information in today's world, security has become an important issue". With respect to the above statement, give the meaning of the term security.

Answer:
The protection of sensitive data and personal information from unintentional and intentional attacks and disclosure is called security.

Question 4:
Privacy deals with personal information. Explain the meaning of term personal information.

Answer:
Personal information is the information that identifies you or could identify you. e.g. your name and address.

Question 5:
Write down the major issues of security and integrity of information.

Answer:
There are three major issues as follows:

1. Confidentiality
2. Integrity
3. Availability

Question 6:
Information and other resources can be modified only by those users, who have the authority of doing so. Under which ethical issue the above restriction is ensured?

Answer:
Security and Integrity of information ensures that information and other resources are modified only by those users, who have the authority of making changes in the data.

Question 7:
Name three types of law that can help restrict software piracy.

Answer:
The following are the three types of law that can help to restrict software piracy:

1. Copyright
2. Patent
3. Trademark

Question 8:
What is the role of database administrator?

Answer:
DBA is a person who manages the database of an organisation.

Short Answer Type Questions

Question 1:
An extended synonym for Information Technology is ICT. So, how ICT differs from IT?

Answer:
Differences between IT and ICT are as follows:

IT	ICT
IT refers to an entire industry that uses computers, networking, software and other equipment to manage information.	ICT can be seen as an integration of IT with media broadcasting technologies, audio/video processing and transmission and telephony.
IT is a term widely used in the industry.	ICT is widely used in the context of education.

Question 2:
List down some common usage of Information Technology.

Answer:
Common usage of IT includes information storage, data processing and statistical analysis, Word processing, accounting and financial forecasting, management information systems, communication, designing and the control and automation of manufacturing processes, computer programmers, computer sales etc.

Question 3:
IT security today has become a major point of concern. What comes under IT security?

Answer:
IT security is a term which is more concerned with the protection of hardware, software and a network of an organisation, from the perils of disaster and external attacks through virus, hacking etc.

Question 4:
List the guidelines to avoid plagiarism.

Answer:
Follow the below given guidelines to avoid plagiarism:

1. To avoid plagiarism, instead of copying the language of the book as it is, try to put it in your own language/words.

2. One should have a clear understanding of plagiarism and its consequences, so that no one can perform it unintentionally.

3. If copying someone else's work in our task, word for word, then do not forget enclosing it in quotes and also mention its source.

4. Another way is to credit the author has write which was useful for your task and not taking credit for it yourself.

Question 5:
Today people are less aware about software ethics and because of this unintentionally they are getting involved in illegal activities. Elaborate the term software ethics.

Answer:
Software enables us to accomplish many different tasks with computers. Unfortunately, for various reasons, some people justify making and using unauthorised copies of software. Software ethics refers to ensuring that the software being used is not pirated

or unauthorised. This also includes that the software developers should be given a fair return for their work.

Question 6:
The individual's right to privacy deals mainly with information. What are the other things covered under this right?

Answer:
The right to privacy involves the decisions pertaining to questions like what information about one's self or one's associations must a person reveal to others, under what conditions and with what safeguards. What things can people keep to them and not be forced to reveal to others?

Question 7:
"Internet can affect the privacy rights of a person." Comment.

Answer:
A person's Internet usage and transactions done by him/her online provides a large amounts of information which provides insight into that person's interests and other vital information about the person.

Hacking or tracking of activities of some person without his/her knowledge have become prominent with the increase usage of Internet. Hence, a person with malicious intent can easily invade in some other person's privacy online.

Question 8:
Which three laws are formulated in order to stop software piracy?

Answer:
In order to stop software piracy, three types of laws are formulated as follows:

1. Copyright is an exclusive right of the developer or author, to protect their works which is granted by law.

2. Patent is the special power of monopoly granted by the law. The work cannot be used or reproduced without obtaining a license from patent holder.

3. Trademark is the registered word or text/logo depicting the identity of a product, work or company.

Question 9:
Intellectual property right means that the person who produces the information is the only one who can use that information.
Now, explain the need of protecting intellectual property right.

Answer:

The intellectual property rights must be protected because protecting them:

1. Encourages individuals and business to create new software and new software applications, as well as improving existing applications.
2. Ensures new ideas and technologies are widely distributed.
3. Promotes investment in the national economy.

Question 10:

Using copyright, software piracy can be stopped. How?

Answer:

The copyright in the work of authorship immediately becomes the property of the author, who created the work.

Only the author or those deriving their rights through the author, can rightfully claim copyright.

Long Answer Type Questions

Question 1:

"ICT is influencing our day to day life and has been proved to be very much beneficial for everyone." In light of the above statement, give impacts of ICT.

Answer:

ICT has made a huge impact on almost every aspect of our daily lives. Its power has influenced engineering, health, aerospace, communications, education, research etc.
Benefits of ICT

ICT has become an integral part of our daily life. And, it has benefited the common man in various ways in every field of life. Some of them 'are given below:

1. Education
ICT has been proved to be very much beneficial in the field of education. Following are some benefits of ICT in education:

1. With online classes and video lecturers, there is no time boundation on an individual for getting educated by a teacher. A person can attend a class at any time and at anywhere.

2. Teachers can create interactive classes by making the lessons more interested. Generally, students find images and graphical representation of concepts more interesting as compared to the theoretical knowledge. Thus, using ICT, teachers can explain even the most complex concept in a very simplified manner using graphics, videos and animations. "

3. With the introduction of ICT in education, the success rate of students has improved remarkably.

4. Learning resources can be accessed remotely.

5. Learning can be done at learner's pace. It is very beneficial for slow learner also.

2. Healthcare
ICT provides following benefits in the field of healthcare:

1. Computers and ICT technologies are making healthcare for all patients more efficient and accurate.

2. Improved healthcare is able to bring down the medical costs by reducing the number of days, the patient has to stay in hospital.

3. It provides assistance to medical surgeons during critical operations.
4. Clinics and hospitals use computers with standard software packages to manage schedules for visiting wards etc.

5. To enable health workers in developing countries are accessing relevant medical training through ICT-enabled delivery mechanisms.

3. Governance
Following benefits are provided by ICT for governance: '

1. By using Internet, government can offer services in an efficient and easy manner.

2. Less man power is required in providing services to public.

3. ICT has helped in providing better response to customers and effective management.

4. With the help of ICT, government can stay closely in contact with common people and can get to know about their problems more easily.

5. ICT helps economy grow at a faster rate as it provide transparency in the processes and help the government to keep check an defaulters.

4. Business
In context of business, ICT has been proved to be most beneficial. Some of the benefits are as follows:

1. Using ICT, two persons can interact each other easily rather going from one place to another to meet each other.

2. With the help of ICT, business can maximise employee engagement and productivity' because using different technology, an employee can work from anywhere at any time.

3. ICT can help a company in knowing the customer mindset and hence can deliver them quality product services accordingly.

4. Better and simpler organisation of data can be done by using computer.

5. It provides better and enhanced job opportunities.

5. Design and Manufacturing

The use of ICT in design and manufacturing industry has evolved Computer Aided Design (CAD) and Computer Aided Manufacturing (CAM). Using CAD, designers can develop more detailed design of the products. And, the final design can be combined with CAM. CAD and CAM provides following benefits:

1. Designers are allowed to change easily their designs to match to any amendments made by the managers.

2. CAM can avoid the shortcomings of human beings as products can be manufactured continuously without any break.

3. With the help of CAD, software mistakes in a design can be detected quickly and hence the manufacturing phase take less time.

4. The integration of CAD/CAM greatly reduces the time required for production planning and allocation of jobs to various resources.

Question 2:
List the various forms of software piracy.

Answer:
Software piracy means copying of data or computer software without the owner's permission. However, most peoples are aware about piracy and know that it is illegal, yet the piracy is uncontrollable. This is simply the violation of intellectual property rights and right to privacy.

The following are forms of software piracy:

1. Software counterfeiting in this type of software piracy, a copyrighted software pied and sold.

2. Soft lifting Purchasing only one licensed copy of a software and distributing and loading it onto multiple systems is called soft lifting.

3. Renting Selling of a software illegally for temporary use as on rent basis is called renting.

4. Hard disk loading Installing an illegal copy of software on the hard disk of a personal computer is called hard disk loading.

5. Uploading and downloading Creating duplicate copies of the licensed software or uploading and downloading it from the Internet.

In order to stop software piracy, three types of laws are formulated as follows:

1. Copyright is an exclusive right of the developer or author, to protect their works which is granted by law.

2. Patent is the special power of monopoly granted by the law. The work cannot be used or reproduced without obtaining a license from patent holder.

3. Trademark is the registered word or text/logo depicting the identity of a product, work or company.

Question 3:
Why is individual's right to privacy important in today's world?

Answer:
Recent advances in information technology threaten privacy and have reduced the amount of control over personal data and open up the possibility of a range of negative consequences as a result of access to personal data. A variety of information on individuals is kept in databases.

These databases house information, such as social security numbers, credit card numbers, medical histories, family histories and many more. Practically, every organisation has a database full of information on everyone they do business with. The concern with this is whether or not they should be collecting this information, what they will do with it, how secure it is, how accurate it is and to whom it can be sold.

Personal data is increasingly made available in online databases, which can be accessed by search engines. The question that concerns is: should personal information, like we discussed, be so readily available to the public?

The availability of personal information shows no signs of slowing. Infact, courts and government agencies at all levels are increasingly making public records available online. Some find it troubling given the sensitive information contained in the available documents.

For instance, someone filing for bankruptcy must disclose their social security number, their bank and credit card numbers, account balances and even children's names and

ages.
One of the fastest growing crimes has been identity theft. Identity theft is the stealing of another person's social security number, credit card number, or other personal information for the purpose of paying bills, using the personal information to do illegal activities using other person's identity.

In some cases, thieves even withdraw cash directly from the victim's bank account. Since, many private organisations and governments keep information about individuals in accessible databases, there is an endless opportunity for thieves to retrieve it and misuse the information.

Question 4:
What are the various possible careers in IT?

Answer:
The following are important jobs in IT:

1. Computer Programmer A computer programmer is a person, who codes various computer programs for users, so that they can perform desired tasks on computer.

2. Software Engineer A software engineer is a person, who is responsible for designing and programming a large scale system software and application software.

3. System Analyst A system analyst is responsible for researching, planning and recommending software and systems choices to meet an organisation's business requirements.

4. System Administrator (SA) A system administrator is responsible for managing, overseeing and maintaining a multiuser computing environment, such as a Local Area Network (LAN).

5. Maintenance Technicians A maintenance technician mainly deals with computer hardware.

6. Web Master A Web master manages the implementation and administration of a Website.

7. Network Administrator A network administrator manages the LAN of an organisation.

8. Network Security Analyst A network security analyst ensures their company's information systems and computer networks are secure.

9. Database Administrator (DBA) A DBA is a person who manages the database of an organisation.

10. Database Analyst A database analyst designs and develops the information flow model and database architecture.

11. Help Desk Executive A help desk executive is a resource intended to provide the customer or end user with information and support related to a company's or institution's products and services.

12. Information Systems Managers These are responsible for the implementation of technology with in an organisation and direct the work of systems and business analysts, developers, support specialists and other computer-related workers.

13. Internet Engineer/Internet working Engineer An Internet engineer works with a company's current information system, assesses its growing needs and designs and implements new software and applications that will help the company move forward in its market.

14. Technical Writer A Technical writer is responsible for authoring hardware and software documentation either for an organisation's internal computer systems or for third party vendors.

Application Oriented Questions

Question 1:
Reena wants to get employment opportunities based on IT. What are the options for employments?

Answer:
Web designing and developing, E-Learning, advertising etc are the options for employments opportunities based on IT.

Question 2:
New Market has employed Aryan Kumar to manage and maintain their networking architecture and wide area connectivity. Which type of job will best describe his job profile?

Answer:
Networking Engineer will best describe his job profile.

Multiple Choice Questions

Question 1:
C in ICT stands for ………………..
(a) Communication   **(b)** Computer
(c) Control   **(d)** None of these

Answer:
(a) ICT stands for Information and Communication Technology.

Question 2:
Which field has been benefitted using the Information and Communication Technology Tools?
(a) Education   **(b)** Health
(c) Governance   **(d)** All of these

Answer:
(d) Information and Communication Technology tools are benefitted in various fields such as Education, Governance and Health etc.

Question 3:
Which of the following software is/are used for design and manufacturing?
(a) CAD   **(b)** C.DA and CAM
(c) CAM   **(d)** Both (a) and (c)

Answer:
(d) CAD and CAM are the two important software used in designing and manufacturing. Using CAD, designers can developed more detailed design and the final design can be combined with CAM.

Question 4:
Making illegal copies of copyrighted software is called ………………….
(a) Software piracy   **(b)** Browsing
(**c**) Collaboration   **(d)** Electronic distribution

Answer:
(a) Software piracy refers to making illegal copies of copyrighted software.

Question 5:
Purchasing of only one licensed copy of a software and distributing/loading it onto multiple systems is called as ……………
(a) Soft lifting   **(b)** Renting
(c) Hard disk loading   **(d)** Patent

Answer:
(a) Soft lifting is a common type of software piracy in which a legally licensed software program is installed or copied in violation of its licensing agreement.

Question 6:
Making backups, keeping passwords and having access control are used for …………..
(a) Data security   **(b)** Data integrity

(c) Network security   **(d)** All of these

Answer:
(a) Backups, access authorised are the techniques to secure data from damage and getting lost.

Question 7:
The term is used to represent-"information is accurate and complete"
(a) Security   **(b)** Integrity
(c) Completeness   **(d)** Counterfeiting

Answer:
(b) Integrity means information is accurate and complete.

Question 8:
Intellectual property is a ……………
(a) industrial property   **(b)** copyright property
(c) Both (a) and (b)   **(d)** None of these

Answer:
(c) Intellectual property are of two types:

1. Industrial property
2. Copyright property

Question 9:
The person who responsible for researching, planning and recommending software and systems to meet the requirements of the user/organisation is called
(a) Programmer   **(b)** System analyst
(c) Database analyst   **(d)** Engineer

Answer:
(b) A system analyst is responsible for researching, planning and recommending software and systems choices to meet an organisation's business requirements.

Fill in the Blanks

Question 1:
Directly copying text, word for word is called ……………

Answer:
plagiarism

Question 2:
Plagiarism occurs due to lack of ……………..

Answer:
knowledge

Question 3:
……………… refers to attempts to gain information from otherwise undisclosed areas.

Answer:
Hacking

Question 4:
……………… refers to the unauthorised duplication of computer software.

Answer:
Software piracy

Question 5:
Intellectual property refers to creation of ……………..

Answer:
mind

Question 6:
Trademark is the registered ……………… depicting the identity of a product, work or company.

Answer:
word or text/logo,

Question 7:
……………….. helps in managing the administration and implementation of a Website.

Answer:
Web master

True or False

Question 1:
Lack of enforcement is called a plagiarism.

Answer:
True Lack of planning, time is called a plagiarism.

Question 2:
Internet uses generate large amount of personal information, information thefts and information technology piracy.

Answer:
True Internet uses generate large amount of personal information, information thefts and information technology piracy.

Question 3:
Secrecy means that we can share the personal information of an individual with anyone.

Answer:
False Secrecy means we should share the personal information of an individual only with authorised persons.

Question 4:
Software piracy is the act of illegally copying software.

Answer:
True Software piracy refers to the unauthorized duplication of computer software.

Question 5:
Copyright continues indefinitely.

Answer:
False Copyright does not continue indefinitely.

Question 6:
Trademark is an intellectual property.

Answer:
True Copyright, patents and trademarks are the intellectual property.

Question 7:
Using work of other people, we should always give credit to them.

Answer:
True If we are using intellectual property of another person then we should always give credit to them.