



Information Technology (Vocational)

CLASS – 10

ANSWERS (Part B)

Unit-IV Web Applications and Security

CHAPTER 15: Working with Accessibility Options

A. Select the correct option.

1. c. Hearing
2. c. Vision
3. c. Toggle
4. a. Filter
5. b. Eye strain

B. Fill in the blanks.

1. Turning on Filter Keys
2. Hearing
3. Magnifier
4. Turning on Sticky Keys
5. Dexterity

C. Write T for True and F for False.

1. False
2. False
3. False
4. False
5. False
6. False
7. True

D. Answer the following questions.

1. The most common disabilities for which Windows provides solutions are:

VISUAL IMPAIRMENT: This includes the inability to see and read due to blindness, colour blindness, impaired eyesight, glaucoma, cataract, or other age-related diseases of the eye.

HEARING IMPAIRMENT: This refers to the inability to hear beeps or other warning sounds or even the audio portion of the video on the computer.

PHYSICAL/MOTOR IMPAIRMENT: This impairment refers to the inability to control the mouse or keyboard due to injuries or loss of hands or fingers, stiffness in the finger joints, or tremors in hands due to some diseases.

LEARNING DISABILITIES

The inability to read and comprehend or difficulty in learning and understanding, the written test is referred to as learning disability.

2. A Magnifier tool is helpful for the people with impaired vision as it enlarges the different parts of the screen in such a way, that people with visual impairment can easily see the objects on the screen. To turn on the Magnifier, simply click on the **Start Magnifier** option.

3.

Toggle Key	Sticky Key
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Caps Lock, Num Lock, and Scroll Lock keys are the Toggle Keys.	Sticky Keys can also be turned on or off from the keyboard settings.
If you press Caps Lock to obtain all capital letters then pressing the Caps Lock again will turn it off and now all the lowercase letters will be typed. Click on the check box to turn the Toggle Keys ON or OFF.	This feature is useful for those who face difficulty in pressing more than one key at a time (like Ctrl +Alt+ Del). Turn on Sticky Keys will allow the user to press one key at a time instead of pressing all the keys together.

4. Screen Narrator tool helps in reading the text on the screen aloud. It also describes some system events, such as error messages, notifications etc., while using the computer. You can activate the narrator by clicking on the **Start Narrator** option from the **Ease of Access Center** window.

5.

a. **Filter keys:** Turning on Filter Keys will make the computer recognise multiple key presses as a single key press. Due to trembling of the hands or stiffness of the finger joints, some people face difficulty in pressing a key on the keyboard. Instead of a single press of the key, they may press it more than once. For those people, Filter keys may be used.

b. **Setting up high contrast:** High contrast amplifies the colour contrast of some text and images on the computer screen to reduce eye strain and makes the items more distinct and easier to identify. People with poor vision can see in a much better way if the display is set to high contrast.

Chapter 16: Networking Fundamentals

A. Select the correct option.

1. b. WAN
2. b. Software
3. a. Internet Protocol
4. c. Modem
5. c. Dial-up
6. c. Packet

B. Fill in the blanks.

1. Virus
2. Security
3. Transmission Control Protocol
4. Hotspot
5. Wireless Fidelity
6. Hub

C. Write T for True and F for False.

1. True
2. False
3. False
4. False
5. False
6. True

D. Answer the following questions.

1. Wireless Fidelity is a popular technology through which computers and mobile devices exchange data wirelessly over the network. Wireless internet connects a home or business organisation to the internet using a radio link between the customer's location and the service provider's facility. Wi-Fi is generally used to provide the internet connection to remote places, where it is difficult to use wires. Wi-Fi is also used within smaller areas, like a home, an educational institute or a corporate office to provide wireless internet to all the users there.

2.

Repeater	Router
A repeater simply copies the information arriving at its input and retransmits it from the output.	A router is a networking device, which routes the information around the network.
This is required at times when the network signal is weakened or distorted over a long distance.	It is also used to connect one network with the networks.
This happens if the network passes through an area having strong electromagnetic fields. The weakened or distorted signals are regenerated and then retransmitted by the repeater.	The header of every packet of the information arriving at a router is checked for the destination and using the best route, the message is forwarded to the next device.

3. Data in the internet refers to all the files, e-mails, web pages, etc. that you can see across the internet. Data travels across the internet in packets. The information in the packet enables a computer to understand how it assimilates with any other data, the origin or source of the data, and the data's final destination. This technique is called packet switching and widely used for optimising data transfer over a computer network.

Let us understand this technique of data transmission.

- When you send a message or an e-mail to another computer connected on the internet, the data in the message or e-mail is first broken down into small data packets. Once the packets are ready, the address of the sending and receiving computer is enclosed with the data packets.
- When the data packets are received by a computer the data packets are again reassembled in a way that they take the form of the original message. The data packets reach their destination using different routes. The process is somewhat similar to sending parcel to your friend using a courier service.

4. The different types of connections for connecting to the internet are discussed as follows:

Dial up connection, Digital Subscriber Line, Cable Internet, Satellite Connection, 3G, 4G, or 5G Systems, Wireless Fidelity (Wi-Fi), WiMAX, Wi-Fi Hotspot

- **Dial up Connection:** This type of connection utilises the telephone lines but is not preferred these days as it is very slow. It allows the user to do one work at a time. One can either use the phone to call or connect to the internet.
- **Digital Subscriber Line (DSL):** It is also a type of connection that uses the telephone lines, but is capable of transferring data at a much higher speed. A DSL filter removes the high-frequency interference, thus enabling simultaneous use of the telephone and data transmission.

Ch-17: Introduction to Instant Messaging

A. Select the correct option.

1. b. ICQ
2. b. IM
3. b. I Seek You
4. b. Application based
5. a. Web based

B. Write T for True and F for False.

1. True
2. True
3. False
4. True

C. Answer the following questions.

1. Instant Messaging (often called IM) refers to real-time communication with the user at the other end through an application called **Instant Messenger**. Most of the instant messengers use client-server model where messages from a user are sent to the server first and then forwarded to the intended recipient. IM usually takes place between two users and follows back-and-forth style of communication, i.e., a user can type a short message and send it easily by clicking on the Send button. Nowadays, a wide variety of IMs (WhatsApp, Google Hangouts, Facebook, and Skype) are available that provide people with the facility of sending text, audio chat, video calling and conferencing, and file transfer. For using audio and video call or conferencing, users must have microphones, headsets or speakers, and web cameras, so that they can talk or see each other.

2. Following are the key features of instant messaging:

- It is faster than any other mode of communication.
- Users can connect to IM regardless of their location.
- Users can communicate with each other as per their suitable time.
- A user can make a group of people to chat with them in one go.
- Users can share the screen using the Screen Sharing feature. This feature is available in most of the instant messengers.

3. Google Hangouts application is available for installation on both Android and iOS platforms. You can also use Google Hangouts on your computer or laptop by using a browser, such as Google Chrome.

4. The four instant messaging applications are:

- Hangouts
- Skype
- WhatsApp
- Hangout

Ch-18: Chatting Using Google Hangouts

A. Select the correct option.

1. c. Both a and b
2. b. Emoticons
3. a. Gmail

B. Write T for True and F for False.

1. False
2. True You should follow basic etiquette while chatting with the others.
3. True
4. False

C. Answer the following questions.

1. You can chat with people across the world using an instant messenger like Google Hangouts.

2. To chat with a contact in the Google Hangouts application, follow these steps:

- Open Google Chrome web browser on your computer.
- Type the URL hangouts.google.com in the Address bar and press the Enter key
- Sign in to Google Hangouts by entering valid Email id and Password of Gmail.
- The interface of the Google Hangouts appears. By default, it contains a list of contacts that you have added in your Gmail.

- You will notice a green dot next to the contacts. The green dot indicates that the contacts are online.
 - To start chatting, click on the contact (visible along with the green dot) you wish to chat with.
 - The chat window pops up. It shows all the past conversations with the contact. At the bottom of the chat window, type a message that you want to send.
 - Press the Enter key to send the message. Your message will be delivered instantly. If the other person also replies on the same time, then you will get his/her message immediately.
3. Following are the basic etiquette that should be followed while chatting with the others:
- Always introduce yourself by name, if your screen name does not reflect it.
 - Always ask if the other person has time to chat first - regardless of how important you think what you have to say is. Your message is not going to be well received, if the recipient is busy.
 - Always start your message with a short greeting.
 - Ensure that your message is short, precise and to the point.
 - If you are chatting with a person and he/she is waiting for your response, then do not keep him/her waiting for a long time.
4. WhatsApp is the most popular instant messenger, nowadays. It is widely used for sending text and voice messages, and making audio and video calls. It is a free application that can be easily installed on the mobile phones. You can also use it on your computer by launching WhatsApp Web.

BRAIN DEVELOPER

SECTION 4: APPLICATION BASED QUESTIONS (UNSOLVED)

1. Dia should use speech recognition and On-screen if she wants to set the alternatives for input devices.
2. The commonly used protocols for data transfer over the internet are (Transmission Control Protocol/Internet Protocol (TCP/IP) and File Transfer Protocol (FTP).
3. LAN
4. Google Hangouts
5. Yes

SECTION 5: SHORT ANSWER TYPE QUESTIONS (UNSOLVED)

1. **Sticky Keys** can also be turned on or off from the keyboard settings. This feature is useful for those who face difficulty in pressing more than one key at a time (like Ctrl +Alt+ Del). Turn on Sticky Keys will allow the user to press one key at a time instead of pressing all the keys together.

Toggle Keys

Caps Lock, Num Lock, and Scroll Lock keys are the Toggle Keys. If you press Caps Lock to obtain all capital letters then pressing the Caps Lock again will turn it off and now all the lowercase letters will be typed. Click on the check box to turn the Toggle Keys ON or OFF.

2. Narrator option is used to activate the narrator by clicking on the Start Narrator option from the Ease of Access Center window.
- 3.

Internet	WWW
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A global interconnection of computer networks around the world is known as the internet. In other words, the internet is a network of networks. Communication over the internet is governed by a set of rules known as protocols. The commonly used protocols for data transfer over the internet are (Transmission Control Protocol/Internet Protocol (TCP/IP) and File Transfer Protocol (FTP).	The World Wide Web (WWW) commonly known as the Web, is a way of accessing information over the internet. It contains millions of documents called Web Pages. Sir Tim Berners Lee, along with Robert Cailliau, invented the world wide web while working at CERN (European Council for Nuclear Research) in 1990.
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4. A computer network may be defined as a group of two or more computer systems or peripheral devices that are connected together to exchange information and share resources with each other.

TYPES OF NETWORKS

Depending on their size, capabilities, and the geographical distance, computer networks can be classified as follows:

- **Personal Area Network (PAN)**

This type of network connection covers a very small area, such as a home or an office cabin.

Desktop computers, laptops, tablets, smartphones, printers, or wireless headphones make up the nodes of this type of network. It uses Bluetooth, USB connections, or the increasingly popular Wi-Fi technology for communication. It generally covers the range of less than 10 metres.

- **Local Area Network (LAN)**

LAN is used in an office building or educational campus. Ethernet cables and Wi-Fi are used to set up this type of network. Its range is up to 10 kms. The number of systems connected in LAN may vary from 2 to 1000. LAN is a useful technology that provides different ways of sharing the resources between the end users. Resources such as printers, file servers, scanners, and the internet can be easily shared among the connected computers.

- **Metropolitan Area Network (MAN)**

This type of network is geographically larger than LAN and covers a city. They are used by large organisations, having several branches over a city or local government bodies, like the Municipal Corporation, or police. This type of network uses microwave transmissions or fiber optic cables to link the different nodes of the network.

5. Data in the internet refers to all the files, e-mails, web pages, etc. that you can see across the internet. Data travels across the internet in packets. The information in the packet enables a computer to understand how it assimilates with any other data, the origin or source of the data, and the data's final destination. This technique is called packet switching and widely used for optimising data transfer over a computer network.
6. Instant Messaging (often called IM) refers to real-time communication with the user at the other end through an application called Instant Messenger. There are two types of Instant Messaging software — application-based and web-based.

APPLICATION BASED

These are application programs that can be easily downloaded and installed on the user's devices. Some popular application-based instant messengers are as follows:

- Hangouts

- Skype
- Rediff Bol
- WhatsApp
- Facebook Messenger

WEB BASED

These can be accessed by using a browser application, such as Google Chrome, Internet Explorer, and so on. Some popular web-based instant messengers are as follows:

- Hangouts
- Skype Online
- eBuddy
- MSN Web Messenger
- WhatsApp Web

7. Google Hangouts application is available for installation on both Android and iOS platforms. You can also use Google Hangouts on your computer or laptop by using a browser, such as Google Chrome or on mobile phone.

To use Google Hangouts on your computer, follow these steps:

- Open a browser window, such as Google Chrome.
- Type hangouts.google.com in the Address bar and press the Enter key.
- The Home Page of Google Hangouts appears. Click on the Sign in button.
- The Google Sign in page appears. Enter an Email Id of Gmail.
- If your email Id is valid, Google will ask you to type the password. Enter the password and click on Next.
- If the email id and password matches, then you will login to Google Hangouts.
- The main window of Google Hangouts contains the list of your Gmail contacts, by default. The contacts that are online at present will be indicated by a green dot.
- You can easily chat through Google Hangouts by clicking on the contact whose green dot is visible or use other services, such as audio call or video call.

8. An emoticon known as an emote, which are a pictorial representation of a facial expression using characters—usually punctuation marks, numbers, and letters—to express a person's feelings or mood, or as a time-saving method.

9. To chat with a contact in the Google Hangouts application, follow these steps:

- Open Google Chrome web browser on your computer.
- Type the URL hangouts.google.com in the Address bar and press the Enter key.
- Sign in to Google Hangouts by entering valid Email id and Password of Gmail.
- The interface of the Google Hangouts appears. By default, it contains a list of contacts that you have added in your Gmail.
- You will notice a green dot next to the contacts. The green dot indicates that the contacts are online.
- To start chatting, click on the contact (visible along with the green dot) you wish to chat with.
- The chat window pops up. It shows all the past conversations with the contact. At the bottom of the chat window, type a message that you want to send.
- Press the Enter key to send the message. Your message will be delivered instantly. If the other person also replies on the same time, then you will get his/her message immediately.

SECTION 6: LONG ANSWER TYPE QUESTIONS (UNSOLVED)

1. Some commonly used accessibility tools are discussed as follows:

- **MAGNIFIER**

A Magnifier tool is helpful for the people with impaired vision as it enlarges the different parts of the screen in such a way, that people with visual impairment can easily see the objects on the screen. To turn on the Magnifier, simply click on the Start Magnifier option.

- **NARRATOR**

Screen Narrator tool, besides reading the text on the screen aloud, also describes some system events, such as error messages, notifications etc., while using the computer. You can activate the narrator by clicking on the Start Narrator option from the Ease of Access Center window.

- **ON-SCREEN KEYBOARD**

The on-screen keyboard displays a visual keyboard with all the standard keys.

To use an on-screen keyboard, simply click on the desired key using the mouse. The on-screen keyboard does not disable the functioning of a physical keyboard and it is possible to use both simultaneously.

- **SET UP HIGH CONTRAST**

High contrast amplifies the colour contrast of some text and images on the computer screen to reduce eye strain and makes the items more distinct and easier to identify. People with poor vision can see in a much better way if the display is set to high contrast.

- **EXPLORE ALL SETTINGS**

This section of Ease of Access Center allows all the settings to be customised. Let us discuss how these options help a disabled person to use a computer.

- **USE THE COMPUTER WITHOUT A DISPLAY**

This section helps in optimising the settings for a person who is blind or has severely impaired vision.

2. Few advantages and disadvantages of computer networks are as follow:

ADVANTAGES OF COMPUTER NETWORKS

- **Sharing of Hardware:** Sharing of hardware devices, like printers, scanners, or storage devices such as hard drives help in reducing the cost of the hardware.
- **Sharing Files:** By using a network, the users can easily share documents with each other. This feature promotes teamwork and increases productivity.
- **Backup:** Data can be stored on a central computer or server with a backup system; ensuring that no data loss can occur.
- **Cost Effective:** Since hardware, software, and storage systems can be shared; this results in cost saving.

DISADVANTAGES OF COMPUTER NETWORKS

- **Initial Costs:** Although the running cost of a network is lower than that of the individual computers, but the initial cost of setting up a network is higher. Expensive devices, such as routers, switches, hubs, network interface cards, and server can add up to the cost.
- **Maintenance and Administration:** If the network grows too large, various issues may crop up in the day-to-day operation of the computer network. To work efficiently and optimally,

it requires high technical skills and know-how of its operations and administration.

- **Major Effect of Breakdowns:** If a computer network's main server breaks down, the entire system would become useless. Likewise, in case of problems with the shared resources, like hardware, software, or storage systems, all the computers on the network would also come to a standstill.
3. A specific computer, more powerful than the others, acts as the server and provides resources to the other computers on the network. Client-Server networks are usually more expensive and not so easy to implement. It is easy to take measures to secure the system in a Client-Server network. Specific computers can be allowed access to specific areas of the server.
 4. The various uses of an instant messaging account are as follow:
 - To use an instant messenger service, a user must have an account with the IM application and needs to be signed in the same application to communicate with the others who are already logged in.
 - Every IM application has a different interface and format. For example, the interface or format of WhatsApp is different from the Google Hangouts or Facebook Messenger.
 - Google Hangouts and Facebook Messenger are closely associated with the online profiles of the users, whereas WhatsApp can be used to chat with the contacts stored in the mobile phones. However, all these platforms have one thing in common, i.e., they are used for communication.
 5. To use WhatsApp on your computer, follow these steps:
 - Open the browser window.
 - Type web.whatsapp.com in the Address Bar and press the Enter key.
 - Then, open the WhatsApp app on your mobile phone and follow the instruction given on the web page to scan the code.
 - WhatsApp will be activated on your computer. Now, you can chat with a contact in the same way you do on your mobile phone.

CHAPTER 19: Creating and Publishing Blogs

A. Select the correct option.

1. c. Both
2. c. Customise
3. a. Create
4. c. 3 GB

B. Fill in the blanks.

1. Publish
2. Add
3. Write
4. Host

C. Write T for True and F for False.

1. True
2. True
3. False
4. True

D. Answer the following questions.

1. Three important points that you must keep in mind while writing a blog are:
 - Understand your target audience. Have a clear understanding of their interest and what they want to know about.
 - Make sure that the blog is well structured.
 - Use social media portals, like Facebook, Instagram, etc. to make your blog popular. This method of marketing offers a huge potential.
2. Select an engaging topic and give an interesting title to it. A prominent headline is the key to attract people towards your blog.
3. To upload media, click on the Add button, a drop-down list will appear. Then you can add audio, video, image, and many other types of files to your blog.

Chapter 20: Using Offline Blog Editors

A. Select the correct option.

1. a. Offline
2. c. Both a and b
3. a. Blog's URL
4. b. Manager
5. a. Qumana

B. Write T for True and F for False.

1. False
2. False
3. True
4. True

C. Answer the following questions.

1. Offline blog editors are the application software that helps you to easily write, edit, spell-check, and manage the content of your blog without being connected to the internet.
2. Offline blogging has a many benefits. Some of them are as follows:
 - Offline blog editors are faster than the online blog editors.
 - While using an offline editor, you always have a backup copy of your post on the hard drive.
 - With a blogging app, all the advanced editing, and formatting features are available, just like you get in the WordPress editor.
 - Offline editors provide the settings for images, videos, and links easily.
3. Qumana is one of the best desktop-based blog editors. It can be downloaded for free on your Windows, Linux, or Mac-based computer. It has the ability to work with most common blogging applications, like WordPress, Blogger, LiveJournal, Typepad, and many more. It gives an offline access to blog posts without any browser. In your default blog editor, it becomes quite difficult to edit and insert various types of media, whereas, this can be done easily in Qumana, and also for more than one blog at the same time. There are a number of fee-based blog editors that offer the same or even less functions than Qumana.
4. Qumana displays all the existing posts available in your blog. To create a new post, do the following in your blog editing window:
 - Click on the New Post button .
 - Enter the title of the post in the Title field.
 - Enter the content of the post in the Content Area.
 - Click on the Publish Post button. The post will get automatically updated on your WordPress blog.
 - To view your published post, open your WordPress blog on the web browser and type the URL of your blog.

Chapter 21: Online Transactions

A. Fill in the Blanks.

1. Online shopping/E-shopping
2. E-commerce
3. www.irctc.co.in
4. Electronic Data Interchange

B. Write T for True and F for False.

1. True
2. True
3. False
4. True

C. Answer the following questions.

1. Nowadays, lots of the internet services are available to promote businesses electronically. The internet offers you many convenient ways to shop from your homes or offices for almost everything, such as movies, games, stationery, apparels, health care, personal products, home appliances, and electronic items. This process of selling and buying products over the internet is called Online shopping or E-shopping.
2. E-reservation means making a reservation or appointment for a service via the internet. Using e-reservation, you can check the availability of seats in bus, train, or aircraft anytime, and also reserve rooms, meeting halls, or tables in restaurants. By making online payment through credit or debit cards and net banking, you can confirm your reservations also.

3. BENEFITS OF E-RESERVATION

- **Accessible Anywhere:** Buying an e-ticket or making an online booking is the most convenient method for booking a hotel, flight or car-on-rent. One can buy an e-ticket anywhere in the world where an internet connection is available.
- **Discounts and Offers:** You can check multiple websites to select the best price while making an online reservation. Many hotel and airline websites provide lucrative offers to their online customers by offering discounts and attractive schemes to attract more clients.
- **Commission Free:** Booking online saves hidden commission fees as there is no third-party involved.
- **Quick System:** Booking through e-reservation system is very fast. The users can simply search, select, and book the tickets either by paying through credit cards or net banking and get an instant confirmation for services.
- **Changes and Cancellations:** Changes and cancellations of e-tickets can be done immediately and the money is refunded almost instantly by just logging onto the internet.
- **Customer Reviews:** Customer reviews during e-reservations help in deciding the type of service that will be provided by the service provider. They help the user in making decisions and availing the best services.
- **Safe and Reliable:** E-reservation software provides a secure online transaction system by taking security measures to protect your confidential credit and debit card information.

APPLICATION AREA

E-reservation has changed the reservation process completely in the last few years. More and more users are now using online reservation facility because of its ease of use and instant confirmation. It saves both time and money and ensures a stress-free service. It is being used in areas such as:

- Hotel reservation
- Travel ticket reservation
- Movie ticket reservation
- Event reservation

4. You register at various sites for online transactions during which you have to enter a username and password. If you lose the password to your e-mail, bank, or credit card accounts, you could be facing severe monetary losses. You should therefore, take special care to protect your passwords.

The following points list some of the measures that you can take to protect your password:

- Use strong passwords that have a combination of lower and upper case letters, numbers, and also special characters. Keep the length of the password to at least 12-14 characters.
- Do not use easy-to-guess passwords. Avoid using passwords, such as your name or surname, username, names of your family members like mother, father, children, pets or even friends, birthdates, dictionary words, or part of your address.
- If you decide to use a simple password, add a number or special character to the password either at the beginning or at the end or even in both the places!
- Never write your password anywhere so that nobody can misuse it.

Chapter 22: Internet Security

A. Fill in the blanks.

1. History
2. Phishing
3. Antivirus
4. Firewall
5. Backups

B. Write T for True and F for False.

1. False
2. True
3. True
4. False
5. True

C. Answer the following questions.

1. With the rapid growth of the internet and its applications in diverse fields, security risks have also increased. People tend to put their personal information, like name and address, passwords for the email accounts, banking, or even credit card details over the internet. This information can be easily intercepted by some people with bad intentions (crackers). They may misuse this information for their own benefit. Virus like the Ransomware virus attacks have made people realise how vulnerable their information is and has increased the need for Internet Security.

2. Phishing is an act of sending an e-mail to a user; misleading him to believe that it is from a trusted person or organisation. The user is asked to visit a website in which he is supposed to update or validate his personal details, such as user name, password, credit card details, etc. In this way the operators of the fake website steal the person's identity and commit crimes in his name. This could damage the person's reputation and cause him heavy financial losses.

3.

Email Spoofing	Chat Spoofing
Email spoofing is one of the most common security threats these days. This process involves sending emails to the targeted recipients to make them believe that these emails originate from trusted resources.	Chat spoofing is quite similar to email spoofing. The only difference between the two is that in chat spoofing, the spoofing happens when the target is engaged in a chat process. The target perceives that he or she is chatting with someone known, but in fact, it is a cyber attack.

The purpose of spoofing is to gain access to the recipient's personal information. It can be usernames, passwords, banking details, etc.	The purpose of chat spoofing, also, is to gain access to some important personal information.
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4.

- **Use a Firewall:** Some programs might try to access your computer remotely without your permission. To prevent such a situation, you should install a firewall on your computer. A firewall is a software that can help in preventing unauthorised access to your computer by blocking unsolicited communications.
- **Do not Open Attachments from Unknown Sources:** One of the most common ways through which viruses spread is email. So, always ignore unsolicited e-mails. Avoid opening attachments, links, and forms in e-mails that come from people you do not know, or which seem "phishy". Also, avoid untrustworthy downloads.
- **Scan all Portable Storage Devices before Use:** Pen drives are one of the most popular storage devices in use today due to their convenience and portability. It has been found that they are also the most common sources of infection in computers. Set up your antivirus software to automatically scan every portable device plugged into the computer to ensure that your system remains safe.
- **Restrict the Number of users on the Computer:** Although this may not be possible in places where computers are shared, but having some control over the usage will greatly reduce the risk of infection. So, the number of users should be restricted especially when the users are allowed to bring and use their own portable storage devices.
- **Update all Software Regularly:** Very often software companies discover that there are certain vulnerable areas in the software they have designed. They will try to develop a patch for this problem and release it to all the registered users by an update. If your software is not updated, then this will leave your computer open to a security threat. To avoid this, try to set all software to update automatically on a regular basis.
- **Do not use Pirated Software:** Though using a pirated and unlicensed software may seem financially attractive, yet the possibility of picking up a virus infection from such sources is very high. Always use software from well-known companies that can be downloaded from their official site.

BRAIN DEVELOPER

SECTION 4: APPLICATION BASED QUESTIONS (UNSOLVED)

1.

After creating a blog, you need to create a post. To create your first blog post, do the following:

- On your Homepage, click on the Write button to start making your first blog post.
- Give a Title to your blog, and start writing the content. The text formatting tools appear as you type the text. You can choose them to format your text as you do while working on any word processor.
- You can also add images to your blog. Copy an image and paste it on your blog page.

- Using the free plan from WordPress, you can store up to 3 GB of media in your gallery. To upload media, click on the Add button, a drop-down list appears.
- You can add audio, video, image, and many other types of files to your blog.

PUBLISHING A BLOG

- After finishing up with the content, publish your blog to make it live.
- Click on Publish from the top-right corner of the window.
- Check the visibility of your blog. You can choose to make it Public, Private, or Password Protected.
- Click on Publish button, and your blog goes live. You can view your blog online and/or copy the blog link.

2. Rajan has to follow the given steps to insert image in his blog:

- Click on the image button on the toolbar.
- The Insert Image dialog box opens.
- Click on the Browse button and locate the image that is to be added.
- Now, choose a wrapping style for the image in the Wrapping Style section.
- Click on the Upload & Insert button to insert the selected image in your blog.
- Click on the Publish Post button.
- Open your WordPress blog in the web browser to view the published blog.

3. Anita can easily book her own train ticket for travelling from some of the popular websites that provide the reservation facility are:

www.irctc.co.in, www.makemytrip.com, www.bookmyshow.com, www.yatra.com, etc.

4. Rohan should always use a strong password in order to avoid facing severe monetary losses. Use strong passwords that have a combination of lower and upper case letters, numbers, and also special characters. Keep the length of the password to at least 12-14 characters. If you decide to use a simple password, add a number or special character to the password either at the beginning or at the end or even in both the places.

5. Chat spoofing is quite similar to email spoofing. The only difference between the two is that in chat spoofing, the spoofing happens when the target is engaged in a chat process. The target perceives that he or she is chatting with someone known, but in fact, it is a cyber-attack. The purpose of chat spoofing, also, is to gain access to some important personal information.

SECTION 5: SHORT ANSWER TYPE QUESTIONS (UNSOLVED)

1. A blog is a combination of the words web and log. It is a frequently updated, online, personal journal or diary where a person can log (write or post) information related to his interests or activities, express his ideas or opinions or share his knowledge through writing.

2. An internet connection is required to publish an online blog, whereas in offline blogging, one can write a blog when he/she is not connected to the internet. Offline blog editors are faster than the online blog editors.

3. Due to following reasons users are moving towards e-reservations

- **Accessible Anywhere:** Buying an e-ticket or making an online booking is the most convenient method for booking a hotel, flight or car-on-rent. One can buy an e-ticket anywhere in the world where an internet connection is available.
 - **Discounts and Offers:** You can check multiple websites to select the best price while making an online reservation. Many hotel and airline websites provide lucrative offers to their online customers by offering discounts and attractive schemes to attract more clients.
 - **Commission Free:** Booking online saves hidden commission fees as there is no third-party involved.
 - **Quick System:** Booking through e-reservation system is very fast. The users can simply search, select, and book the tickets either by paying through credit cards or net banking and get an instant confirmation for services.
 - **Changes and Cancellations:** Changes and cancellations of e-tickets can be done immediately and the money is refunded almost instantly by just logging onto the internet.
 - **Customer Reviews:** Customer reviews during e-reservations help in deciding the type of service that will be provided by the service provider. They help the user in making decisions and availing the best services.
 - **Safe and Reliable:** E-reservation software provides a secure online transaction system by taking security measures to protect your confidential credit and debit card information.
4. Some popular websites that provide e-reservations are:
www.irctc.co.in, www.makemytrip.com, www.bookmyshow.com, www.yatra.com, etc.
 5. When the shipping cost does not get added to the cost of the product, then it is known as free shipping.
 6. A firewall is a software that can help in preventing unauthorised access to your computer by blocking unsolicited communications.
 7. Data encryption is a security method by which information is encoded in such a way that only an authorised user can read it. Data is encrypted using encryption software.
 8. **Install Antivirus Software:** Viruses threaten your computer security, especially when on the internet. Daily, unscrupulous elements create new viruses and until these threats are detected and countered by the antivirus software manufacturers, you are always at risk from these viruses. It is therefore necessary to have strong antivirus software installed on your computer.
- Use a Firewall:** Some programs might try to access your computer remotely without your permission. To prevent such a situation, you should install a firewall on your computer. A firewall is a software that can help in preventing unauthorised access to your computer by blocking unsolicited communications.
9. To avoid an unfortunate eventuality of your computer being infected by a virus, it is important to have a backup of all of your important data.
 10. A padlock sign or https: instead of http: in your browser address bar as this indicates a secure connection.

SECTION 6: LONG ANSWER TYPE QUESTIONS (UNSOLVED)

1. Some important features of a blog are:
 - An internet connection is required to publish a blog; however, a blog can also be written offline and uploaded on the internet when the connection is available.
 - A blogger can interact with the readers by answering their questions and regularly updating the contents after the readers have given comments related to the blog. This enables him/her to establish trust with his/her readers.
 - To write a blog, you need a blogging tool. There are many such tools available on the internet, i.e., weebly.com, sitebuilder.com, etc. However, WordPress is an online, and one of the most popular open source website/blog creation tool, which is versatile and quite simple to use. It offers both paid and free services. It allows you to make a website or a blog in the shortest possible time.
 - Blogs can be written on any topic. They could be related to business, education, legal, travel, marketing, advertising, health, sports, etc.
2. Offline blogging has many benefits. Some of them are as follows:
 - Offline blog editors are faster than the online blog editors.
 - While using an offline editor, you always have a backup copy of your post on the hard drive.
 - With a blogging app, all the advanced editing, and formatting features are available, just like you get in the WordPress editor.
 - Offline editors provide the settings for images, videos, and links easily.
 - These editors provide facility to add tags and categories directly.
 - These editors help to publish multiple blogs quickly as it is easier to switch from one blog to another.
 - Offline editors let you post your article directly to your blog or post as a draft.
3. E-reservation means making a reservation or appointment for a service via the internet. Using e-reservation, you can check the availability of seats in bus, train, or aircraft anytime, and also reserve rooms, meeting halls, or tables in restaurants. By making online payment through credit or debit cards and net banking, you can confirm your reservations also.

BENEFITS OF E-RESERVATION

- **Accessible Anywhere:** Buying an e-ticket or making an online booking is the most convenient method for booking a hotel, flight or car-on-rent. One can buy an e-ticket anywhere in the world where an internet connection is available.
- **Discounts and Offers:** You can check multiple websites to select the best price while making an online reservation. Many hotel and airline websites provide lucrative offers to their online customers by offering discounts and attractive schemes to attract more clients.
- **Commission Free:** Booking online saves hidden commission fees as there is no third-party involved.
- **Quick System:** Booking through e-reservation system is very fast. The users can simply search, select, and book the tickets either by paying through credit cards or net banking and get an instant confirmation for services.
- **Changes and Cancellations:** Changes and cancellations of e-tickets can be done immediately and the money is refunded almost instantly by just logging onto the internet.
- **Customer Reviews:** Customer reviews during e-reservations help in deciding the type of service that will be provided by the service provider. They help the user in making decisions and availing the best services.
- **Safe and Reliable:** E-reservation software provides a secure online transaction system by taking security measures to protect your confidential credit and debit card information.

4. The internet has given several advantages to each individual and is extremely popular in this modern age. However, it is a tool that must be handled with caution as its misuse can be hazardous. Some of the threats posed by the internet are as follows:

- **PHISHING**

It is an act of sending an e-mail to a user; misleading him to believe that it is from a trusted person or organisation. The user is asked to visit a website in which he is supposed to update or validate his personal details, such as user name, password, credit card details, etc. In this way the operators of the fake website steal the person's identity and commit crimes in his name. This could damage the person's reputation and cause him heavy financial losses.

- **EMAIL SPOOFING**

Email spoofing is one of the most common security threats these days. This process involves sending emails to the targeted recipients to make them believe that these emails originate from trusted resources. The purpose of spoofing is to gain access to the recipient's personal information. It can be usernames, passwords, banking details, etc. Nowadays, most email servers provide security features to prevent this type of activity.

5. Following precautions must be taken to improve the internet security:

- **Keep Passwords Safe:** You register at various websites for accessing their content during which you have to enter a username and password. It is suggested that one should change their password frequently. If you do not change your password frequently then your password might get hacked and you may face severe monetary losses. You should therefore, take special care to protect your passwords.

- **Secure Transactions:** Nowadays, most of the transactions are happening online, therefore, it is very important to ensure the security of these financial transactions on the internet. The online transactions are made through a mobile application, like eBay, Flipkart, Amazon, etc, using Point of Sale (POS) payment system in shopping malls or shops and third party pay services, like PayPal or Paytm.

- **Install Antivirus Software:** Viruses threaten your computer security, especially when on the internet. Daily, unscrupulous elements create new viruses and until these threats are detected and countered by the antivirus software manufacturers, you are always at risk from these viruses.

- **Use a Firewall:** Some programs might try to access your computer remotely without your permission. To prevent such a situation, you should install a firewall on your computer. A firewall is a software that can help in preventing unauthorised access to your computer by blocking unsolicited communications.
- **Do not Open Attachments from Unknown Sources:** One of the most common ways through which viruses spread is email. So, always ignore unsolicited e-mails. Avoid opening attachments, links, and forms in e-mails that come from people you do not know, or which seem "phishy". Also, avoid untrustworthy downloads.

6. Data may be stored in temporary internet files, cookies, usernames, passwords, browsing history, download history, favorites, and data from forms. If this information falls into the wrong hands, it would result in the loss of your privacy and may also result in an unsecured situation. To preserve your privacy ensure that your browsing is always secure. To do so, you should regularly delete any unnecessary data stored in the browsers.

