

## Chapter 2: Internet and Web Services

### Solutions

#### Summative Assessment

##### Multiple-Choice Questions (MCQs)

1. The following option helps in editing the network connection in BOSS 5.0:

a. Desktop  
b. Edit Connections  
c. Wired Network Connection  
d. None of these

Ans. b

2. .... is an application that is used to retrieve information from the Internet.

a. Web browser                      b. Website  
c. URL                                  d. Computer

Ans. a

3. The following is a type of e-mail client software:

a. Zimbra Collaboration Suite  
b. Google  
c. Gmail  
d. Hotmail

Ans. a

4. Identify the software that helps you in sending and receiving e-mails:

a. MS Word                              b. Internet Explorer  
c. MS Outlook                          d. None of these

Ans. c

5. What do you understand by E-mail?

a. A word processing software  
b. A Web browser  
c. A mode of communication  
d. None of these

Ans. c

6. Which of the following is not a search engine?

a. Google                                  b. Ask.com  
c. Bing                                      d. Skype

Ans. d

7. To connect your computer system to the Internet, you need the following components:

a. Modem                                  b. Web browser  
c. Transmission medium              d. All of these

Ans. d

8. What is the meaning of FYI?

a. in other words  
b. for your information  
c. face to face  
d. None of these

Ans. b

9. Which one of the following services is not provided by the Web?

a. Chat                                      b. Video conferencing  
c. CPU                                      d. E-mail

Ans. c

10. Which of the following is an example of an e-mail address?

a. <http://www.gmail.com/e-mail>  
b. C:\Windows\e-mail  
c. sample@gmail.com  
d. None of these

Ans. c

##### Very Short Answer Questions

11. List the points that you need to keep in mind while framing search queries.

Ans. The following are some crucial points that should be remembered before framing the search queries:

- Do not frame search queries as questions
- Provide phrases within punctuations

12. Name the parts that are separated by the @ sign in an e-mail address.

Ans. The two main parts are username and hostname.

13. Define the term emoticon.

Ans. Emoticons or smileys are elements that help to express the emotions or feelings of users more clearly in the e-mail.

**14.** Name the folder in which e-mail messages are stored.

Ans. The e-mail messages are stored in the Inbox folder.

**15.** State the importance of the Cc field in an e-mail address.

Ans. The recipients whose e-mail addresses are added in the Cc field would receive a copy of the mail.

**16.** What do you understand by the term newsgroup?

Ans. A newsgroup is a kind of virtual round table where any user can post messages and others can read them.

**17.** List any five search engines.

Ans. The following is a list of five search engines:

- Google
- Yahoo!
- Bing
- Ask.com
- HotBot

**18.** List any three social networking websites.

Ans. The three social networking websites are as follows:

- Facebook
- Twitter
- MySpace

### Short Answer Questions

**19.** Name any five services provided on the Internet.

Ans. The Internet provides various services that are as diverse as the Internet itself. Some of these services are as follows:

- E-mail
- Search engines
- Chatting
- Video conferencing
- Blogs and forums

**20.** Name the devices used to connect to the Internet.

Ans. The following devices are required for connecting to the Internet:

- Computer
- Modem
- Transmission medium
- Network Interface Card
- Internet Service Provider (ISP)

**21.** What is the use of social media? Define different types of social media.

Ans. Social media is the new way for online communications like sharing thoughts, information, audios, videos, pictures etc. as in the similar community and interest.

The different types of social media are as follows:

- **Social Network:** It provides services to connect different people with similar interests and background.
- **Social News:** It is a platform that allows users to share different news items.
- **Media Sharing:** It helps the user to upload and share different media, such as videos, audios, or pictures.
- **Microblogging:** It enables users to make a discussion on different topics.

**22.** List the different types of blogs.

Ans. Some of the commonly used types of blogs are as follows:

- Personal blogs
- Corporate and organizational blogs
- Genre blogs

**23.** What is the difference between the Cc and Bcc fields?

Ans.

- **Cc:** It refers to the Carbon Copy field. The recipients whose e-mail addresses are added in the Cc field would receive a copy of the mail.
- **Bcc:** It refers to the Blind Carbon Copy field. The recipients whose e-mail addresses are added in the Bcc field would receive a copy of the mail; however, the identity of these recipients would not be disclosed.

**24.** What are the meanings of the following acronyms:

- |         |        |
|---------|--------|
| a. ASL  | b. BRB |
| c. CU   | d. LOL |
| e. ZZZZ |        |

Ans.

- a. **ASL:** Age/Sex/Location
- b. **BRB:** Be Right Back
- c. **CU:** See You
- d. **LOL:** Laughing Out Loud
- e. **ZZZZ:** Sleeping

**25.** Define FTP.

Ans. FTP is an acronym for File Transfer Protocol. It is used to transfer files among users over the internet. FTP works on communication based on clients and servers. A client is simply the computer that requests information from the FTP server. On receiving the request, the FTP server provides the desired information to the client.

**26.** What do you understand by a blog?

Ans. A blog can be defined as an online collection of articles, suggestions, and ideas of individuals. User can read and give comments on the information posted on blogs. Blog is a website or a part of a website that is maintained by a user. In blogs, user can enter the comments and create discussions on a particular subject. Nowadays, it is one of the most popular interactive modes of communication on the Internet.

**27.** What do you understand by a forum?

Ans. A forum is website that functions as an online message board. Users can use a forum to hold online discussions on a particular issue or subject by posting messages. Therefore, forums provide an ideal platform to users who want to express their thoughts or opinions about a particular issue or topic, and discuss them with other users.

**28.** Which fields are present in an e-mail message header?

Ans. An e-mail message header contains information about the sender and recipients as well as the subject and date of the message. The message header is divided into various fields, and each field is identified by a name and associated with a value.

The mandatory fields for a message header are as follows:

- From
- To
- Subject
- Date
- Message-ID

The following are the non-mandatory or secondary fields of a message header:

- Carbon Copy
- Blind Carbon Copy
- Content Type

## Long Answer Questions

29. Write short notes on the following:

- |             |                       |
|-------------|-----------------------|
| a. E-mail   | b. Search engine      |
| c. Chatting | d. Video conferencing |

Ans.

- a. **E-mail:** E-mail is one of the most important services available on the Internet. It represents a mode of communication in which a user can send electronic messages to other users through the Internet.
- b. **Search Engine:** A search engine is used to search for information on the Internet according to the specified criteria. Without search engines, finding the information on Internet would be a painstaking and cumbersome task.
- c. **Chatting:** Chatting is an interactive text-based communication process that takes place over the Internet.
- d. **Video conferencing:** Video conferencing uses the audio and video telecommunication technologies to connect two or more users, located at different parts of the world, to exchange information through a virtual meeting over the Internet.

30. Write short notes on the following:

- |              |          |
|--------------|----------|
| a. Blog      | b. Forum |
| c. Newsgroup |          |

Ans.

- a. **Blog:** Blogs help users to interact, collaborate, and share the ideas with other individuals. A blog can be defined as an online collection of articles, suggestions, and ideas of individuals. User can read and give comments on the information posted on blogs. Blog is a website or a part of a website that is maintained by a user. In blogs, user can enter the comments and create discussions on a particular subject. Nowadays, it is one of the most popular interactive modes of communication on the Internet. Some of the commonly used types of blogs are as follows:
  - Personal blogs
  - Corporate and organizational blogs
  - Genre blogs
- b. **Forum:** A forum is website that functions as an online message board. Users can use a forum to hold online discussions on a particular issue or subject by posting messages. Using forums, a user can maintain social bonding with others who are interested to discuss on a particular issue. The forum software packages can be obtained across the Internet.
- c. **Newsgroup:** A newsgroup is a kind of virtual round table where any user can post messages and others can read them.

Newsgroups are generally made for sharing information on some common topic of interest or concern. Users can meet each other virtually and have discussions on these topics. A newsgroup is also a great way of sharing images and other files, which can be attached to the message.

31. Write short notes on the following:

- |                    |                  |
|--------------------|------------------|
| a. E-commerce      | b. E-learning    |
| c. E-banking       | d. E-reservation |
| e. Online shopping |                  |

Ans.

- a. **E-commerce:** Helps organizations to reach more and more consumers; thereby, providing a wider market to enhance their business domains. E-commerce saves time and effort of both the parties (buyers and sellers) while making a transaction.
- b. **E-learning:** Refers to the electronic mode of delivering the learning, training, or education program. In this mode of learning, the knowledge or skills are being transferred with the help of the computer and network. The e-learning applications and processes comprises Web-based learning, Internet-based training, virtual classroom, or digital collaboration.
- c. **E-banking:** Refers to electronic banking or Internet banking in which customers can perform any of the virtual banking functions through their bank accounts by connecting to the website of the respective bank.
- d. **E-reservation:** Refers to the process that allows the user to know about the online availability of tickets or rooms and make the reservation through Internet.
- e. **Online shopping:** Refers to a quick and easy way of buying things as the user does not need to go to a particular store to make the purchases. Therefore, it is not only convenient but also saves time.

32. What are the advantages and limitations of using e-mail?

Ans. The following are the basic advantages of using the e-mail :

- Saves paper and is easy to edit
- Transmits message faster than normal communication mediums, such as speed post and courier
- Sends message as per sender's convenience
- Enables the user to transmit a single e-mail to multiple users
- Allows the user to save the incoming and outgoing messages for future reference

The following are the limitations of e-mail:

- Requires hardware such as a computer, printer, and a network connection device to access and print e-mail messages
- Sends the message instantly; therefore, if a user makes any mistake, such as sending the e-mail to the wrong recipient, it may be too late to do anything about it
- Lacks the ability to express emotions and feelings possible in other modes of communication, such as a telephone

33. Describe the mandatory fields of an e-mail message header.

Ans. An email message header contains information about the sender and recipients as well as the subject and date of the message. The message header is divided into fields, and each field is identified by a name and associated with a value.

The mandatory fields for a message header are as follows:

- **From:** Contains the e-mail address or name of the sender.
- **To:** Contains the e-mail address of the receiver. This field may contain one or more e-mail addresses or names of the recipients. The field indicates the primary receiver(s) of the message.
- **Subject:** Contains the subject of the message. This field may contain certain abbreviations, such as RE (indicates the reply of the received message) and FW (forwarding a message received from other users).
- **Date:** Contains the local time and date when the message was sent. This field can be filled automatically by the e-mail server when the user sends the message. The e-mail server that receives the message may display the time it receives the message.
- **Message-ID:** Refers to the identification number of the message provided by the e-mail server. It is also an automatic generated value, which is used to prevent the redelivery of a message.

**34. What do you understand by search engines? What are they used for? Name any five search engines.**

**Ans.** A search engine helps in searching particular information according to the specified criteria. To use a search engine, the user just needs to go to its home page, type a keyword or a search criterion in the search box and click the Search button. The relevant information is displayed on the screen instantly. A search engine hunts for the specified criteria through its own database. It is better to use more than one search engine when trying to find something on the Internet. To search and get relevant information using search engines, the user must use specific keywords. Five commonly used search engines are:

- **Google:** <http://www.google.com>
- **Yahoo!:** <http://www.yahoo.com>
- **AOL.com:** <http://www.aol.com>
- **Bing:** <http://www.bing.com>
- **Ask.com:** <http://www.ask.com>

**35. Briefly describe the three elements used by a search engine.**

**Ans.** The three elements used by a search engine are as follows:

- **Spiders or Web crawlers:** Signifies the software that browses the Internet in a systematic manner. It is also known by various other terms, such as ants, bots, automatic indexers, Web spiders, and Web robots. In general, Web crawlers are used to maintain a duplicate copy of all the visited pages and indexing of the downloaded pages to provide quicker and better searches. Crawlers also provide automated maintenance for websites, such as verifying links or validating code.
- **Indexing software:** Refers to the software that receives a list of Web documents and Web addresses collected by the Web crawler. The indexing software extracts the information from the Web documents and Web addresses and then prepares the index of the available information. Finally, it stores the data in the database.
- **Search algorithm:** Refers to the mechanism of searching the keywords in the database of a search engine. If the searched keyword is found in the database, then the Web documents and Web addresses related to the keyword are displayed to the user.

**36. Suggest five ways to get better search results on the Internet.**

**Ans.** The following are some crucial points that should be remembered before framing the search queries:

- **Do not frame search queries as questions:** Implies that the user should only provide important words in the search query because words such as articles, prepositions, and conjunctions are dropped by the search engine.
- **Provide phrases within punctuations:** Means that when a user wants to search any phrase as it is, user should put the search query between punctuation marks, such in quotes (" ").
- **Use Wildcard characters (\*):** Implies that when a user wants to search a string that starts with specific characters, he/she should place a wildcard character, called asterisk (\*), after the string. For example, suppose a user wants to search a string starting with "cr", he/she should place an asterisk (\*) mark after "cr", that is, "cr\*". By doing so, the search engine will search for all the words starting with "cr", such as creative, craft, crawl, creature, and crowd.
- **Be cautious about casing:** Implies that if a user is not sure about the casing of the searched keyword, he/she should provide the search query in lowercase. This is because the lowercase word matches are not case sensitive, but uppercase word matches are case sensitive. For example, if a user search for the keyword, "computer", then the search engine will search for the word "computer", "Computer", "COMPUTER", and "COMPUter". However, if a user search for the word "Computer", then the search engine will search only for "Computer".
- **Provide the plus (+) sign before the keywords that must be searched:** Implies that a user provides the plus (+) sign immediately before the keywords that he/she wants to search in the search query. For example, suppose a user is searching for the string, Web browsers for linux operating system, and he/she want the keywords browsers and linux to be there in every search result, then user can type the query as web + browsers for + linux operating system.

**37. What do you understand by the chat service available on the Internet? Do you need to connect to the Internet in order to chat with your friends?**

**Ans.** Chatting is a virtual means of communication by sending and receiving messages between users of any part of the world. Using Internet Relay Chat (IRC), user can chat with multiple users simultaneously. IRC is a chat protocol that uses the Internet to exchange text messages among users. A chat server provides several chat rooms based on various categories, such as Teens, Religions, Society, and Games. A user can select any one of these chat rooms according to his/her interest. After joining a room, he/she can read the messages of other users and send their own messages to any one of them. Every user has a login name, which is used to identify him or her. Before a user can start chatting on the Internet, he/she needs to be registered with a chat site. Yes, it is essential to be connected to the Internet while chatting.

**38. Define video conferencing. List down the freely available video conferencing software.**

**Ans.** Video conferencing uses the audio and video telecommunication technologies to connect two or more users, located at different parts of the world, to exchange information through a virtual meeting over the Internet. Video conferencing is a type of a groupware (a method of connecting two or more remote terminals

together for communication) that allows the user to talk to other user or users while being able to view them at the same time. It is a useful tool commonly used for news reporting and conducting business meetings. Another area where video conferencing has proved indispensable is remote surgery. Video conferencing is also highly interactive as compared to text-based modes of communication, such as chatting and e-mail.

To perform the video conferencing, the user need to download and install a Linux-based software program (if the user is using the Linux OS). Several Linux-based video conferencing software are freely available on the Internet like TCPCam, Ekiga or GnomeMeeting, Skype for Linux, Brosix and Goober.

### 39. Define the format of an e-mail message.

Ans. An e-mail message primarily consists of two components, message header and message body, which are defined as follows:

- **Message Header:** An e-mail message consists of a header that contains information about the sender and recipients as well as the subject and date of the message. The message header is divided into fields, and each field is identified by a name and associated with a value. The mandatory fields for a message header are as follows:
  - **From:** Contains the e-mail address or name of the sender.
  - **To:** Contains the e-mail address of the receiver. This field may contain one or more e-mail addresses or names of the recipients. The field indicates the primary receiver(s) of the message.
  - **Subject:** Contains the subject of the message. This field may contain certain abbreviations, such as RE (indicates the reply of the received message) and FW (forwarding a message received from other users).
  - **Date:** Contains the local time and date when the message was sent. This field can be filled automatically by the e-mail server when the user sends the message. The e-mail server that receives the message may display the time it receives the message.
  - **Message-ID:** Refers to the identification number of the message provided by the e-mail server. It is also an automatic generated value, which is used to prevent the redelivery of a message.

The following are the non-mandatory or secondary fields of a message header:

- **Carbon Copy:** Refers to the Cc field. The recipients whose e-mail addresses are added in the Cc field would receive a copy of the mail.
- **Blind Carbon Copy:** Refers to the Bcc field. The recipients whose e-mail addresses are added in the Bcc field would receive a copy of the mail; however, the identity of these recipients would not be disclosed.
- **Content Type:** Refers to the format in which the message is displayed. In general, the message format is Multipurpose Internet Mail Extensions (MIME).
- **Message Body:** The body of a message includes content that can be in the form of text, images or both. Unlike the message header, the message body contains the complete information of the subject given in the message header.

### 40. Define the FTP and TELNET protocols. Name five Linux-based FTP software.

Ans.

- **FTP protocol:** FTP is an acronym for File Transfer Protocol. As the name implies, FTP is a protocol that is used to

transfer files among the users over the Internet. FTP works on communication based on clients and servers. A client is simply the computer that requests information from the FTP server. On receiving the request, the FTP server provides the desired information to the client. FTP-based communication makes use of the following two channels:

- **Control channel:** Remains connected during the communication between the client and the server
- **Data channel:** Opens and closes only when data has to be transferred between the client and the server
- **TELNET protocol:** TELNET can be defined as a set of rules that enable one computer to communicate with any other computer in a network. The computer requesting for the connection is known as the local machine and the computer to which the request is made is called the remote machine. The remote machine can be located on the network or Internet. Some freely available Linux-based FTP software are as follows:
  - FileZilla
  - kasablanca
  - gFTP
  - konqueror
  - ftpcube

### 41. Write the steps to search the following queries:

- a. Information about the book 'Discovery of India'
- b. Information about colleges in India offering bachelor course in 'Economics'

Ans. a.

1. Click in the Address bar of the Web browser window.
2. Type <http://www.google.co.in> in the Address bar and press the Enter key.
3. Type "Discovery of India" in the Search text box.
4. Click the Google Search button. The Google search result Web page with a list of hyperlinks related to the search query appears on the screen.
5. Click the desired hyperlink from the list of hyperlinks.

b.

1. Click in the Address bar of the Web browser window.
2. Type <http://www.google.co.in> in the Address bar and press the Enter key.
3. Type "Colleges + India + bachelor course + Economics" in the Search text box.
4. Click the Google Search button. The Google search result Web page with a list of hyperlinks related to the search query appears on the screen.
5. Click the desired hyperlink from the list of hyperlinks.

### 42. Write the steps to create a new e-mail account in Gmail.

Ans. Perform the following steps to create an e-mail account:

1. *Connect* to the Internet.
2. *Log on* to the website <http://www.gmail.com>.
3. Click the **Create an account** button to register for a free e-mail account on Gmail. The member registration form is displayed.
4. *Fill* the required information in the respective fields of the member registration form.
5. Click the **I agree to the Google Terms of Service and Privacy Policy** checkbox and click the **Next step** button.



6. Click the **Continue to Gmail** button on the Welcome page of Gmail, which will take the user to the e-mail account that he/she has just created.

## 43. Write the steps to send an e-mail to your friend in Gmail.

**Ans.** Perform the following steps to send an e-mail to the friend in Gmail:

1. Log in to the Gmail account. The Gmail account page appears.
2. Click the **COMPOSE** button in the **Gmail** account page. The **New Message** pop-up window opens.
3. Type the e-mail address of the recipient to whom the user wants to send the attachment in the **To** text box, the subject of the e-mail message in the Subject text box, and the e-mail message in the text area.
4. Click the **Send** button to send the e-mail to the desired recipient.

The e-mail message will be sent.

## 44. What do you mean by a newsgroup? How are they different from blogs?

**Ans.** A newsgroup is a kind of virtual round table where any user can post messages and others can read them. Newsgroups are generally made for sharing information on some common topic of interest or concern. Users can meet each other virtually and have discussions on these topics. A newsgroup is also a great way of sharing images and other files, which can be attached to the message.

On the other hand, a blog is a website or a part of a website that is maintained by a user. In blogs, users can enter the comments and create discussions on a particular subject. Nowadays, it is one of the most popular interactive modes of communication on the Internet. Blogs help the users to interact, collaborate, and share their ideas with other individuals. A blog can be defined as an online collection of articles, suggestions, and ideas of individuals. Users can read and give comments on the information posted on blogs. Some of the commonly used types of blogs are as follows:

- Personal blogs
- Corporate and organizational blogs
- Genre blogs

## 45. Write the steps to check the e-mail messages you have received in your Gmail inbox.

**Ans.** Perform the following steps to check the e-mail messages received in the Gmail Inbox:

1. Type the URL <http://www.gmail.com> in the **Address bar** of the Web browser. The **Sign in** page of Gmail appears.
2. Type the user name in the **Enter your email** text box.
3. Click the **Next** button.
4. Type the password in the **Password** text box.
5. Click the **Sign in** button. The Gmail account page appears with the inbox showing a list of e-mail messages.
6. Click the subject of the message that the user wants to read. The content of the clicked message appears. So, the user has opened an e-mail message and read it.

## 46. Write the steps to forward an e-mail message.

**Ans.** Suppose a user wants to share an e-mail message in Gmail that he/she has received from a friend.

To forward this e-mail message, perform the following steps:

1. Type the URL <http://www.gmail.com> in the Address bar of the Web browser. The Sign in page of Gmail appears.
2. Type the user name in the **Enter your email** text box.
3. Click the **Next** button.
4. Type the password in the **Password** text box.
5. Click the **Sign in** button. The Gmail account page appears, with the Inbox showing a list of e-mail messages.
6. Click the subject of the message that has to be forwarded.
7. Click the **Forward** link. The forward message section appears.
8. Type the message in the **text area** of the forward message section, if the user wants to add any new message also.
9. Type the e-mail address of the recipient to whom the user wants to forward the e-mail in the **To** text box.
10. Click the **Send** button.

## 47. What is a blog? Write steps to create a blog on <http://www.blogger.com>.

**Ans.** A blog can be defined as a website or part of a website containing the thoughts and ideas of a user. It is written in the form of a continuous commentary on any subject. Other users can read the blog as well as post their comments. Nowadays, blogs have become one of the most popular interactive modes of communication on the Internet. Generally, blogs contain textual information but users can also share their photographs, videos, and artworks with other users.

Perform the following steps to create a blog on <http://www.blogger.com>:

1. Enter a title for the blog in the **Title** text box in the **Create a new blog** dialog box.
2. Enter the address of the blog in the **Address** text box.
3. Select a template for the blog from the **Template** list box.
4. Click the **Create blog** button. The **Overview** page opens.
5. Click the **New post** button.

After clicking the **New post** button, the **Create post** page opens. In this page, users can create entries or posts to start a blog of their own.

## 48. What do you understand by a Web forum? Write the steps to create a Web forum at [www.forumotion.com](http://www.forumotion.com).

**Ans.** A forum is a website that functions as an online message board. Users can use a forum to hold online discussions on a particular issue or subject by posting messages. Therefore, forums provide an ideal platform for users who want to express their thoughts or opinions about a particular issue or topic, and discuss them with other users. Some of the open source forum software are phpBB, YaBB, vBulletin, and Comm100. Users can create their forum account by using various forum hosting websites, such as [www.forums-free.com](http://www.forums-free.com) and [www.forumotion.com](http://www.forumotion.com).

Perform the following steps to create a forum:

1. Type [www.forumotion.com](http://www.forumotion.com) in the Address bar of the web browser. The **CREATE A FREE FORUM** page of **Forumotion.com** opens.
2. Enter the forum address in the Forum address' text box and click the **Create a forum** button. The **Create forum** page opens.
3. Enter the relevant information in the fields of the **FORUM INFORMATION** section.
4. Scroll down to enter the details in the **ADMIN'S INFORMATION** section.

5. Select the **I agree with these terms and conditions** checkbox and click the **VALIDATE** button. The **END CREATION PROCESS** page appears.
  6. Enter the administration password in the **Administration password Checking** text box and the CAPTCH digits in the text box under the **PROVE THAT YOU'RE NOT A ROBOT** section.
  7. Click the **DISCOVER MY FORUM** button. The **FORUM CREATION SUCCESSFUL** page appears.
  8. Click the **ACCESS THE FORUM** button. The **Log in** page of the forum opens.
  9. Type the username and password in the **Username** and **Password** text boxes, respectively. By default, the username is 'Admin'. User needs to use the password that has been entered in the **Create forum** page.
  10. Click the **Log in** button.
- The home page of the created forum opens.

**49.** Write the steps needed to search information for the term 'Information Technology' using a search engine.

**Ans.** User needs to perform the following steps to search the information on Information Technology:

1. Click in the **Address bar** of the Web browser window.
2. Type **http://www.google.co.in** in the Address bar and press the **Enter** key. The home page of the **Google** website appears on the screen.
3. Type **Information Technology** in the **Search** text box..
4. Click the **Google Search** button. The Google search result Web page with a list of hyperlinks related to the search query appears on the screen.
5. Click the desired hyperlink from the list of hyperlinks. The linked Web page of a website appears on the screen.

**50.** How can you find a particular person and his/her address on the Internet?

**Ans.** Perform the following steps to find a person on the Internet (We are using Yahoo! as an example):

1. Open the **http://www.people.yahoo.com/** Web page. The **Yahoo Search** page appears. Using this page, user can search a person by his or her name, phone number, and e-mail ID.
2. In the **Yahoo Search** page, type the name of the person he/she is looking for in the text box with his or her city, state, phone number, address, e-mail address, etc., respectively. For example, we have typed **Ruskin Bond** as the search criteria.
3. Click the **Search** button in the **Yahoo Search** page. The result of the search shows the people with the specified name.

**51.** What do you understand by e-learning? Mention five advantages of e-learning.

**Ans.** E-learning refers to the electronic mode of delivering a training or education program. In this mode of learning, the knowledge or skills are being transferred with the help of the computer and network. The e-learning applications and processes comprises of Web-based learning, Internet-based training, virtual classroom, or digital collaboration. E-learning provides the following advantages:

- **Cost effective:** Eliminates the expense and time incurred in travelling by both the instructor and the learner to be at one location. Instead, they can both be at different locations and still interact with each other to discuss important topics of study. In addition, e-learning eliminates the need of stationery

and books, as learning is provided through audio-visual aids and other material available online.

- **Faster learning:** Provides quicker learning as compared to the traditional classroom learning. This is because e-learning adopts the individualized approach, which allows the learners to pace their study according to their comfort and convenience, and only study the material that they want to learn while ignoring what they already know.
- **Consistent message:** Does not allow the teaching style of the instructor to affect or interfere with the learning process. E-learning is dependent on high quality predesigned audio-visual aids such as video tutorials and PowerPoint presentations. As such, consistent content is delivered to all the learners, which brings uniformity in the learning process.
- **Anywhere, anytime, and anyone:** Makes the learning available to everyone 24 hours a day, seven days a week, as the learning material is available on a network or the Internet. Easy accessibility of learning or training material also allows organizations to distribute the information to almost all locations instantly.
- **Up-to-date learning material:** Allows the instructors to instantly update the learning material across the network. Due to this, the learners have access to the latest and updated content at all times. Moreover, in case of e-learning, the desired material can be accessed or retrieved whenever required. However, in case of the classroom learning, the concepts explained once in the classroom may be subsequently forgotten and consulting the instructor for a revision may not always be possible.

**52.** What is online shopping? What are its advantages?

**Ans.** The Internet provides a wide range of products and services that users can buy at their convenience. Various organizations sell their products online. These products can be anything from books, apparel, toys, furniture, household appliances, to software and hardware. The activity of purchasing items from different websites on the Internet is known as online shopping. Online shopping is popular among customers for the convenience it offers. Users can shop online from virtually anywhere, be it their home or office, or even when they are on the move. All they need is an Internet connection. They can pay for the items they buy at the time after selecting them on the website, or on receiving them at the given address. There are several payment options, such as credit cards and debit cards, available for online customers. Online shopping is a quick and easy way of buying things as they do not need to go to a particular store to make the purchases. Therefore, it is not only convenient but also saves time.

The advantages of online shopping are as follows:

- Providing facility of shopping from any trader and at any time
- Providing benefits to customers from time to time, such as discounts and gifts
- Saving of time by shopping through virtual window
- Providing price comparison between different products
- Offering information about newly launched products to customers
- Providing correct and complete information regarding the products

**53.** What is the use of social networking websites? Name two social networking websites.

**Ans.** Social networking on the Internet is popular with users of all age groups, but more so with youngsters in universities, high schools,

and colleges, as well as people in workplaces. It is a convenient way to get to know people who share same interests, opinions, likes and dislikes. The Internet contains various social networking sites, and people only need to register at these websites to be part of a social network. After registering at a social networking site, they can create their own list of friends to interact and share views with them. They can also share their photos, audio, or video files with others. The two popular social networking websites are Facebook and Twitter.

## Formative Assessment

### Application-Oriented Questions

1. ABC Pvt. Ltd. is a retail company that deals in toys. The company has several stores all over India. Kavita Sharma is working as a store manager at the Delhi store. The CEO, Mrs Aashi Bhat, told her to send the sales report online. She does not know how to send the sales report by using the Internet. Guide her how to send the report as an attachment in the mail.

Ans. Perform the following steps to send the attached file with an e-mail message:

1. Log in to the e-mail account.
2. Click the **Compose** button.
3. Type the e-mail address of the recipient in the **To** text box and the subject of the e-mail message in the Subject text box.
4. Click the **Attach files** icon to select the file from the computer to attach with e-mail message.
5. Select the sales report file from the computer.
6. Click the **Open** button. The selected sales report file is now successfully attached with the e-mail message.
7. Type the desired e-mail message in the text area.
8. Click the **Send** button to send the message with the attached sales report.

2. Salma receives an e-mail from his friend Aakash. In this e-mail, Aakash mentions what to do and what not to do to keep yourself healthy. Salma likes this mail and wants to share it with other friends. How can she send the same mail to her other friends?

Ans. She can send the same mail to her other friends by performing the following steps:

1. Click the **Forward** link.
2. Type the e-mail addresses of the recipients in the **To** text box.
3. Click the **Send** button.

3. You have received an e-mail from your friend. Write the steps that you will follow to reply to this mail.

Ans. After opening the message the following steps will be performed for replying to the mail:

1. Click the **Reply** link. The reply message section appears.
2. Type the reply message in the text area of the reply message section.
3. Click the **Send** button.

4. What steps would you follow to send five photos of your birthday to a friend in an email?

Ans. Perform the following steps to send the photos file with an e-mail message:

1. Log in to an e-mail account.
2. Click the **Compose** button.
3. Type the e-mail address of the recipient in the **To** text box and the subject of the e-mail message in the Subject text box.
4. Click the **Attach files** icon.
5. Navigate the location where the birthday photos are saved in the computer.
6. Select the photos by pressing the Ctrl key and selecting the photos.
7. Click the **Open** button. The selected photos get successfully attached with the e-mail message.
8. Type the desired e-mail message in the text area of **New Message** pop-up window.
9. Click the **Send** button to send the attached photos to the friend.

5. Arun is working on his computer system and accessing the information using the Internet. His mother comes to him and asks what is he doing? Arun tells his mother that he is using the Internet.

She asks the following questions:

- a. What is an Internet?
- b. What all can we do by using the Internet?
- c. Can we find anything on the Internet? If yes, tell me the steps to find information on Mahatma Gandhi.
- d. Is this possible to shop using the Internet? If yes, what we call this type of shopping?

Ans. The following are the answers Arun gives to his mother:

- a. The Internet is a collection of interconnected computer networks. Users need to be connected to the network to access the Internet. In addition, there are various devices, such as computer, modem, and transmission medium, which the users need to connect to the Internet.
- b. The Internet is used for surfing, searching the information, chatting, sending and receiving e-mail, and online shopping.
- c. Yes, we can find any information on the Internet.

The steps to find information on Mahatma Gandhi are as follows:

1. Click in the Address bar of the Web browser window.
2. Type <http://www.google.co.in> in the Address bar and press the Enter key.
3. Type "Mahatma Gandhi" in the Google search text box.
4. Click the **Google Search** button.
5. Click the desired hyperlink of the website.
- d. Yes, it is possible to shop using Internet. We call this type of shopping as online shopping.

6. The XYZ bank has started the facility of e-banking for its customers. Mention two benefits that the customers will get by using the service.

Ans. The two benefits that the customers will get by using the e-banking service are as follows:

1. A customer can perform banking transactions electronically without having to visit an actual bank.



2. Delivery of cash can be done instantly to customers by using Automated Teller Machine (ATM).

7. Peter has recently got an Internet connection for his personal computer. He wants to create a new e-mail account on Gmail. Write the steps for creating the new e-mail account.

Ans. Perform the following steps to create a Gmail account:

1. Connect to the Internet.
2. Log on to the website <http://www.gmail.com>.
3. Click the **Create an account** button to register for a free e-mail account on Gmail. The member registration form is displayed.
4. Fill the required information in the respective fields of the member registration form.
5. Click the **I agree to the Google Terms of Service and Privacy Policy** checkbox
6. Click the **Next step** button.
7. Click the **Continue to Gmail** button on the Welcome page of Gmail, which will take the user to the e-mail account that he/she has just created.

8. Mr. Banerjee lives in India and has two grandchildren living in the U.S. He wants to get in touch with them. Which Internet services can he use?

Ans. Mr. Banerjee can use e-mailing, chatting, and video conferencing to get in touch with his grandchildren.

9. Imran has created a website to promote his business. He selects an ISP to host his website on the Internet.

- a. What do you mean by ISP?
- b. Name the protocol that Imran uses to upload documents to his website?
- c. The URL of Imran's website is <http://www.shop6to10.com/products.html>. What is the domain name of the website? Discuss the function of DNS.

Ans. a. An Internet Service Provider (ISP) is the organization providing the Internet connection. Some of the popular ISPs in India are Videsh Sanchar Nigam Limited (VSNL), Mahanagar Telephone Nigam Limited (MTNL), and Airtel.

- b. File Transfer Protocol
- c. The domain name of Imran's website is shop6to10. DNS stands for the domain name system. It is a standard technology for managing the names of websites and other Internet domains. It converts the domain name of the website in its corresponding IP address.

10. Name some services provided on the Internet.

Ans. Some of the services offered over the Internet are as follows:

- Electronic Mail (E-Mail)
- Search Engines
- Chatting
- Video Conferencing
- Blogs
- Forums
- Newsgroups
- Electronic Learning (E-Learning)
- Electronic Commerce (E-Commerce)
- Electronic Banking (E-Banking)
- Online Shopping

- Online Reservation
- E-Groups

11. Sukhvinder, who works in Canada, wants to get in touch with his friends in India and is keen to know how they are doing. Suggest two social networking sites that Sukhvinder and his friends can use to interact with each other.

Ans. 1. Twitter  
2. Facebook

12. A company named Shipra Pvt. Ltd. has its head office in Delhi and several branches all over India. The head of the company, Mr. Amber, wants to call a meeting of all the branch managers in which he could talk as well as see each of the branch managers without calling them to Delhi. As an IT manager of the company, how could you help Mr. Amber to do this? Also explain the following things to Mr. Amber.

- a. Define the meaning of video conferencing
- b. List some popular software used for video conferencing in Linux

Ans. Mr. Amber can use video conferencing to hold a meeting with all his branch managers.

- a. Video conferencing uses the audio and video telecommunication technologies to connect two or more users, located at different parts of the world, to exchange information through a virtual meeting over the Internet. Video conferencing is a type of a groupware (a method of connecting two or more remote terminals together for communication) that allows the user to talk to a user or users while being able to view them at the same time.

- b. Several Linux-based video conferencing software are freely available on the Internet. Some of them are briefly described below:

- **TCPCam:** Refers to an easy-to-use video conferencing software for the Linux operating system. The software is available free of cost under General Public License (GPL). Users can download the software from <http://www.tpcam.org/download.php>. The software employs a video streaming device called video4linux, an audio streaming device called sound board, and a Transmission Control Protocol (TCP) port for forwarding data between the users' computers.
- **Ekiga or Gnome Meeting:** Refers to another open source Voice over Internet Protocol (VoIP) application, which is specifically used for the GNOME Desktop of Linux. It provides full-screen video conferencing. It is also distributed under GPL. Users can download the software from <http://www.ekiga.net>.
- **Skype for Linux:** Refers to another Linux-based VoIP software. In addition to video conferencing, users can also use Skype to make free phone calls. Skype is available for most of the Linux distributions. Users can download it freely from <http://www.skype.com>.

13. Emoticons and acronyms are frequently used in e-mail messages and chatting.

- a. Why are emoticons and acronyms included in e-mail messages and chatting?

- b. Briefly describe any five emoticons.
- c. Briefly describe any five acronyms.

**Ans.** a. The use of emoticons and acronyms is discussed as follows:  
Emoticons or smileys are elements that help the users to express the emotions or feelings more clearly in the e-mail. They provide a more direct and fun way to express themselves in addition to the words they use in their e-mail message.  
On the other hand, acronyms and abbreviations can be used for the most frequently used words, such as ASAP (in place of as soon as possible). These acronyms help the users to speed up their typing and can be treated as shortcuts for online communications.

- b. Some most frequently used emoticons are as follows:

Icon	Symbol	Meaning
	:)	Smile
	:O	Surprise
	:(	Sad
	:'(	Crying
	:@	Angry

- c. Some most frequently used acronyms are as follows:

Acronym	Meaning
ASL	Age/sex/location
BRB	be right back
CU	see you
FAQ	frequently asked questions
LTNS	long time no see

- 14.** Mr. Subramanyam is a school teacher who wants to explore a topic on the Internet using a search engine.

- a. What do you mean by the terms 'Internet' and 'search engine'?
- b. Mention the advantages of a search engine.
- c. What are the disadvantages of a search engine?

**Ans.** a. The explanation of the terms "Internet" and "Search engine" are as follows:

- **Internet:** The Internet is a collection of interconnected computer networks. The Internet has emerged as an important means to stay in touch and share information with people living anywhere in the world. The Internet provides a quick and easy way of communication between two or more users.
- **Search engine:** A search engine is used to search for information on the Internet according to the specified criteria. Without search engines, finding the information users need from the Internet would be a painstaking and cumbersome task.

- b. The advantage of using a search engine are as follows:
  1. The task that would have taken hours to complete by the users to do it manually is done in a matter of seconds by the search engine.
  2. Search engine helps in searching a query or finding any information on a particular topic from different websites altogether without visiting these websites separately.
- c. The disadvantage of using a search engine is:
  1. The search engine may display something which is inappropriate for the user.

- 15. a.** What steps will you follow to search a person using the <http://www.people.yahoo.com> website?

- b. Name some websites that provide the facility of finding people on the Internet.

**Ans.** a. Perform the following steps to find a person on the Internet by using the <http://www.people.yahoo.com> website:

1. *Open* the <http://www.people.yahoo.com/> website. The **Yahoo Search** page appears. Using this page, users can search a person by his or her name, phone number, and e-mail ID.
2. In the **Yahoo Search** page, *type* the desired search criteria.
3. *Click* the **Search** button in the **Yahoo Search** page. The result of the search shows the people according to the specified criteria.

- b. Some other websites that provide the facility of finding people on the Internet are as follows:

1. <http://www.facebook.com/>
2. <http://pipl.com/>
3. <http://www.indiabook.com/people/>
4. <http://www.linkedin.com/>

- 16.** Suppose you are a teacher in a school. Ask your students to find out the following information:

- a. How the computers in the computer lab are connected to the Internet?
- b. Can students send e-mail messages from the computers?

**Ans.** The following information will be helpful for the students:

- a. The computers in the computer lab may connect in one of the following ways:
  - Dial-up connection
  - Broadband connection
  - Wireless connection
- b. Yes, the students can send e-mail messages from the computer available in computer lab, if the computers are connected to the Internet.

- 17.** Write the instances where the following services would be used:

- a. Video conferencing
- b. Transmission of pictures and sound over a computer network
- c. Online shopping
- d. E-banking

**Ans.** a. **Video conferencing:** Live broadcast of news and sports, cross country meeting of business groups, and doctors conducting remote surgery

- b. **Transmission of pictures and sound over a computer network:** Watching television over IP TV; downloading pictures, music and videos; playing online games.

- c. **Online shopping:** Purchasing goods and household items from websites, such as Homeshop18, ebay, quickr, etc.

- d. **E-banking:** Paying bills online, downloading account statement, transferring money to the other account, and requesting for a demand draft online.

18. Open the websites of some banks, such as HDFC, ICICI, SBI, and PNB. Write about the e-banking services offered by them.

Ans. E-banking refers to electronic banking or Internet banking in which customers can perform any of the virtual banking functions through their bank accounts by connecting to the website of the respective bank.

Some of the e-banking services being offered by HDFC bank are as follows:

- View / download account statement
- View cheque status
- Funds transfer
- Open new fixed deposit / recurring deposit
- Request demand draft / cheque book / stop payment of cheque

## Unsolved Examination Questions

1. a. Name two Internet service providers in India. (1 mark)
- b. What happens when you click the Back command on the Web Browser? (1 mark)
- c. What is a modem? (1 mark)
- d. Give an example of an e-mail address and explain each part of it. (1 mark)
- e. What do you understand by the term protocol? (1 mark)
- f. Expand the terms
  - i. HTTP
  - ii. FTP [1 mark (Delhi 2006)]

Ans. a. The two Internet service providers are MTNL and BSNL.  
 b. User navigates to the last visited Web page.  
 c. Modem refers to the device used to transmit data over the network.  
 d. An example of e-mail address is sample@gmail.com. The two main parts in the email address are username and hostname.  
 e. A protocol is a set of rules that computers use to communicate with one another over a network.  
 f. (i) HyperText Transfer Protocol (ii) File Transfer protocol

2. a. What is an ISP? Name any one ISP of India. (1 mark)
- b. What happens on clicking the Refresh/Reload command on the Web browser? (1 mark)
- c. Distinguish between a Web address and an e-mail address with examples. (2 mark)
- d. Expand (i) HTML (ii) HTTP (iii) TCP/IP (iv) URL (1 mark)
- e. Distinguish between FTP and Remote Login. (1 mark)
- f. What is the need of uploading and downloading files? [Outside Delhi 2005 (1 mark)]

- Ans. a. ISP refers to the organization that provides Internet access to customers. A popular ISP is MTNL.  
 b. The Web browser reloads the Web page.  
 c. The Web address is the internet address of a website whereas an email address is an address that is used to send and receive email. The example of web address is <http://www.google.co.in/> and e-mail address is username@gmail.com.  
 d. i. **HTML**: HyperText Markup Language  
 ii. **HTTP**: HyperText Transfer Protocol  
 iii. **TCP/IP**: Transmission Control Protocol/Internet Protocol  
 iv. **URL**: Uniform Resource Locator  
 e. FTP is an acronym for File Transfer Protocol. As the name implies, FTP is a protocol that is used to transfer files over the Internet. FTP is designed for distributing files to a number of users over the network. On the other hand the Remote Login allows the users to connect to the remote computer.  
 f. The uploading of files is required to copy a file from their computer to a remote computer whereas the downloading of files is required to copy a file from a remote computer to their computer.

3. a. How one can move from one Web page to another on a website? (1 mark)
- b. Define Home Page. Give two advantages of Home Page. (1 mark)
- c. What is HTTP? Why is it required? (1 mark)
- d. Write the purpose of search engines? (1 mark)
- e. What is the purpose of Back button on the Web browser? [1 mark (Delhi 2005)]

Ans. a. One can move from one Web page to another on a website using the hyperlinks.  
 b. The Home Page is the main page of a website. The two advantages of Home page are following:
 

- The home page's content is available permanently i.e. 24\*7.
- The home page may contain all types of applications.

c. HTTP stands for HyperText Transfer Protocol. It is used to access Web pages from a Web server over the Internet. The search engine searches the Internet for the information user wants and displays it on the computer screen..  
 e. The purpose of the Back button on the Web browser is to navigate to the last visited Web page.

4. a. Why is e-mail so popular over conventional mail? (1 mark)
- b. Why do we use a Web browser? (1 mark)
- c. Give the full form of the following:
  - i. URL
  - ii. FTP (1 mark)
- d. What do you mean by the term TELNET? (1 mark)
- e. What do you understand by uploading a file? Name software used for it. (2 mark)
- f. Define the following terms:
 

Video conferencing

Search engine [Delhi 2004 (2 marks)]

- Ans.
- a. E-mail is so popular over conventional mail because it allows the user to send and receive messages according to his/her comfort and convenience.
  - b. We use a Web browser to retrieve information from the Internet.
  - c. (i) Uniform Resource Locator (ii) File Transfer Protocol
  - d. TELNET is a protocol that allows the user to access a remote computer connected on the network.
  - e. When a file is copied from the computer to a remote computer, it is known as uploading the file. FileZilla is the software that facilitates uploading of files on the Internet.
  - f. Video conferencing: Video conferencing technology is a type of groupware (a method of connecting two or more remote terminals together for communication) that allows the users to talk to other user or users as well as watch them in real time.
  - g. Search engine: The search engine searches the Internet for the information users want and displays it on their computer screen.