COMPUTER APPLICATION

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THE INTERNET (Part – 2)

➢ **Email Address** - **email address is based on the model created for internet electronic mail frameworks since 1980.**

(Ray Tomlinson is credited with inventing email in 1972)

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• PROTOCOLS

➢ **Protocols are the set of rules that is used for data transfer on the internet.**

1. **TCP/IP**(Transfer control protocol/ Internet protocol)

• **It is the basic communication language or protocol of the internet.(vint cerf 1970)**

- TCP IP is a two layer program where the higher Layer TCP manages the assembling of a message or file into smaller packets that are transmitted over the internet and received by TCP layer.
- The lower layer IP on the other hand handles the address part of each packet so that it gets to the right destination.

2. **POP3** (Post Office Protocol 3.Mark Crispin)
- Pop is standard mail protocol that is used to receive emails from a remote server to local email client it allows you to download email message on your local computer and read them even when you are offline.
- POP3 is the most recent version of the standard protocol of receiving email.

3.   **SMTP** (Simple Mail Transfer Protocol)

(RAY TOMLINSON IN 1971)

- SMTP is a protocol responsible for transmission of email over a network.

4.   **HTTP** (Hyper text transfer protocol)

- It is a process used for transferring a webpage from web server to web browser.
- it is basically a set of rules for transferring files on the WWW.

5.   **HTTPS**(Hyper text transfer protocol secure)

- Https is the secure version of http.
- it means all communication between your browser and the website are encrypted.

6.   **FTP** (File transfer protocol)

- Ftp is most commonly used protocol to download a file from or upload a file to server using the internet.

7. **SSH** (secure shell)

- **it is a method for secure remote login from one computer to another.**
- **it providing secure Access for users and automated process secure interactive and automated file transfer.**

8. **SFTP** (SSH file transfer protocol)

- **It works like FTP and SSH combination.**

9. **SCP** (secure copy protocol)

- **It supported on Unix-like platforms as a part of SSH protocol suite.**

10. **TELNET** (Telecommunication Network)

- **It is a network protocol used on the internet or local area network connection.**

2. What is a website?
   a. A collection of related web pages
   b. a webportal
   c. A software to view web pages
   d. None of these

3. Name the web service that allows you to keep online digital diary.
   a. Blogs
   b. Newsgroup
   c. Email
   d. None of these

4. Name the basic language that is used to design a web page.
   a. HTTP
   b. HTTPS
   c. HTML
   d. FTP

5. Which among the following is not a protocol?
   a. HTTP
   b. HTTPS
   c. HTML
   d. FTP

6. What is the full form of URL?
   a. Uniform Remote Locator
   b. Universal Remote Locator
   c. Uniform Resource Locator
   d. Uniform Resource Linker

7. Which among the following is used to transfer data over a www?
   a. HTTP
   b. HTTPS
   c. HTML
   d. FTP

8. SMTP is a simple:
   a. TCP protocol
   b. TCP/IP protocol
   c. IP protocol
   d. None of these

9. A simple protocol used for fetching e-mail from a mailbox is:
   a. POP 2
   b. POP 3
   c. IMAP
   d. None of these

11. Usually in which platform is SCP used?
   a. Windows platform
   b. Unix platform
   c. Both a and b
   d. None of these

12. Which among the following is responsible for breaking data into data packets for transmission?
   a. HTTP
   b. HTTPS
   c. HTML
   d. TCP

Fill in the blanks with the given words.

| website | four | Servers | TELNET | FTP | SSH | HTTPS | IP Address | web servers | web brows |

1. Computers that store the information we seek on the Internet are called _____.
2. The _____ protocol is a method for secure remote login from one computer to another.
3. _____ is used to remotely logon to another computer.
4. A collection of related web pages forms a _____.
5. The IP address consists of a set of _____ numbers.
6. Filezilla is an example of _____ client.

7. Websites are located on _____.

8. A _____ is used to browse the web.

9. 192.168.1.141 is an example of _____.

10. The _____ is a secure version of HTTP.

C. State whether the following statements are True (T) or False (F).

1. The first page that you see when you open a website is called the startup.

2. Google Chrome is the name of a web server.

3. Address bar is a space in a web browser where you can type a web address.

4. The Stop button of a web browser allows you to stop loading a web page in your web browser.

5. The TCP/IP protocol is used for downloading or uploading files.

6. HTTP is a procedure used for transferring a web page from a web server to a web browser.

7. The term upload is used to transfer a file/web page from a website/webserver to a local computer.

D. Answer the following questions.

1. What are the different hardware components of Internet?

2. What are protocols? Name the protocol used for transferring files over the Internet.

3. What are the different ways in which you can connect to the Internet?

4. Name the technologies based on which the World Wide Web is created.

5. What is a Web page? Also state its relationship with a Wesite.

6. Explain the significance of a Web Browser.

7. Give the general syntax of an URL. Also explain each of its components.

8. Explain the significance of domain extension.

9. State one use of each of the following protocols:

   i. TCP/IP   ii. HTTP   iii. FTP

Chapter 1
The Internet

A. A. 1. d   2. a   3. a   4. c   5. c   6. c   7. a   8. d   11. b   12. d

B. 1. servers   2. SSH   3. TELNET   4. website   5. four

6. FTP   7. web servers   8. web browser   9. IP Address   10. HTTPS

C. 1. F   2. F   3. T   4. T   5. F   6. T   7. F

D. 1. The hardware of the internet includes the cables that carry huge amount of data every second to the computers in the network. Other hardware are routers, servers, cell phone towers, satellites, radios, smart phones and other devices.

2. A protocol is a set of rules and guidelines for communicating data. The protocol used for transferring files over the internet is FTP i.e. File Transfer Protocol.

3. The different ways to connect to the Internet are using:

- Dial-Up Connection

- Broadband Connection which includes- Cable Modem, Digital Subscriber Line and Satellite.

- Leased Lines

- Wireless Connection which includes – Wi-Fi, Wi-Fi Hotspots, WiMax and Internet Dongles.

4. The World Wide Web is based on these technologies:

- Web Servers and Web Browsers

- HTTP - Hypertext Transfer Protocol

- HTML - Hypertext Markup Language

5. A web page is a document that stores information, which can be viewed in the internet using a web browser. A Website is a collection of related web pages stored in a web server.

6. A web browser is the software that facilitates the retrieval of information from a web server. The information that is rendered by it may be text, images, videos or any other content and sometimes third party plugins are used to display content inside web browsers. Some very popular web browsers are Internet Explorer, Mozilla Firefox, Google Chrome and Opera.

Thus a web server and a web browser work in unison to achieve the satisfaction of the consumers.

7. The general form of a URL syntax is as follows:

Protocol://domain name/<directory path>/<object name>

For example:

http://www.cbse.nic.in/newsite/index.html

The elements of this syntax are as follows:

Protocol represents name of the protocol https, http, ftp which is used to transfer the data/web page. A domain name is the component of a web address that identifies and locates an entity (such as a person, business or organization) presence on the Internet. Technically speaking, the domain name is the representation of the numeric IP Addresses assigned to individual computers. In this case the domain name is www.cbse.nic.in.

Domain Name represents name of the website www.cbse.nic.in residing in the web server where the website resides. Directory Path represents location i.e. the directories (or folders) where the web page resides (in this case /newsite). Lastly the object name represents the name of file you are accessing in this case index.html.

2. A domain extension or top-level domain (TLD) is the suffix at the end of a domain name, such as .org, .com, .net. or .edu. If your domain name is www.cbse.nic.in, for example, your domain extension is .nic.in which stands for National Informatics Centre and is typically used for e-government web applications in India(.in). Most extensions represent a website category or a country. For example the extension .in is used to represent a website registered in India.

3. i) TCP/IP, or the Transmission Control Protocol/Internet Protocol, is a suite of communication protocols used to interconnect network devices on the internet.

   ii) HTTP is a protocol used to transfer data over the World Wide Web.

   iii) FTP is a protocol to download/upload s a file from a server using the Internet or to upload a file to a server.