THE INTERNET

A. Multiple choice questions:

1. The first predecessor of Internet was _____.
   a. TAPnet   b. NSFnet   c. RPANET   d. none of these
   Ans.   c. ARPANET

2. It is a type of connection that acts as a provisional setup between your machine and ISP.
   a. Dial-Up Connection   b. Broadband Connection   c. Wireless Connection   d. Leased line
   Ans.   a. Dial-Up Connection

3. Which of the following is not used for broadband connectivity?
   a. Satellite   b. DSL   c. Dial-Up   d. Cable Modem
   Ans.   c. Dial-Up

4. Which among the following requires a base station for wireless connectivity using microwave?
   a. Wi-Fi Hotspot   b. WiMax   c. Dongle   d. All of these
   Ans.   b. WiMax

5. Name the technology upon which WWW is based upon?
   a. Web servers and web browsers   b. HTTP   c. HTML   d. None of these
   Ans.   a. Web servers and web browsers

6. Which of the following is the primary function of the web server?
   a. It delivers web pages on the request to clients.
   b. It provides connectivity the request to clients. Between clients and ISP.
   c. It renders web pages.
   d. It provides rules of how data flow takes place in a network.
   Ans.   a. It delivers web pages on the request to clients.

7. Which of the following is best suited to define a web page which brings information together from diverse sources in a uniform way?
   a. Web server   b. Website   c. Web Portal   d. All of these
   Ans.   c. Web Portal

8. Which of the following is not a web browser?
   a. Wikipedia   b. Internet Explorer   c. Google Chrome   d. Apple Safari
   Ans.   a. Wikipedia

9. Which of the following is not a protocol?
   a. HTTP   b. FTP   c. HTTPS   d. HTML
   Ans.   d. HTML

10. What is the other name for URL?

    a. Web Address   b. Webpage   c. Web portal   d. Web server

    Ans.   a. Web Address

11. Which of the following protocol is not used by Email?

    a. POP   b. IMAP   c. SMTP   d.   FTP

    Ans.   d. FTP

12. Internet is

    a. a local computer network

    b. a world wide network of networks

    c. a world wide Interconnected network of computers which use a common protocol to communicate with one another

    d. all of these network of computers which use a common

    Ans.   c. a world wide Interconnected network of computers which use a common protocol to communicate with one another

13. Each computer connected to the Internet must

    a. be a Pentium machine   b. have a unique IP address

    c. have a web browser   d. have a modem connection

    Ans.   b. have a unique IP address

14. IP addresses are converted to

    a. a binary string   b. alphanumeric string

    c. a hierarchy of domain names   d. a hexadecimal string

    Ans.   c. a hierarchy of domain names

15. World Wide Web

    a. is another name for internet   b. world wide connection for computers

    c. a collection of worldwide

    d. a collection of linked information residing on computers connected by the internet

    Ans.   d. a collection of linked information residing on computers connected by the internet

16. A web page is located using a

    a. Universal Record Linking   b. Uniform Resource Locator

    c. Universal Record Locator   d. Uniformly Reachable Links

    Ans.   b. Uniform Resource Locator

B. Fill in the blanks:

1. Computers that store the information we seek on the internet are called Servers.

2. A leased line is a phone line that is rented specifically from the phone organization, and once in a while is referred to as immediate associations with the Internet.

3. A hotspot is a venue that offers Wi-Fi access.

4. A collection of related web pages forms a website.

5. The IP address consists of a set of <u>four</u> numbers.

6. An <u>ISP</u> is a company that offers various technologies by which its customers can access the public internet.

7. Web sites are located on <u>web servers</u>.

8. A <u>web browser</u> is used to browse the web.

9. 192.168.1.141 is an example of <u>IP Address</u>.

10. The <u>FTP</u> protocol is used for transfer of files over the internet.

C. State whether the following statements are true or false:

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

2. Google Chrome is the name of a web server. [False]

3. Address bar is a space in a web browser where you can type out a web address. [True]

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

5. The TCP/IP protocol is used for downloading or uploading a file. [False]

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

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

[False]

D. Answer the following questions:

1. What are the different hardware components of Internet?

Ans. 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. Explain the statement "Internet is always malleable".

Ans. Internet is always malleable as there are devices that get connected or disconnected to the network. For example, when you connect to the internet, you become a part of the internet, you can download information from the internet, likewise people can access you computer from the internet. Again when you disconnect from the internet, you are no longer a part of the network of networks. Similarly there may be millions of computers getting connected or disconnected per second to and from the internet.

3. What are protocols? Name the protocol used for transferring files over the internet.

Ans. Protocols are the set of rules that is used for data transfer in the internet. The protocol used for transferring files over the internet is, FTP i.e., File Transfer Protocol.

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

Ans. 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.

5. What is the significance of Wi-Fi Hotspot?

Ans. A Wi-Fi hotspot is a venue that offers Wi-Fi access. People in general can utilize a portable computer, Wi-Fi telephone, or other suitable compact gadget to get to the web through a Wifi hotspot. Hotspots are open areas, (for example, libraries, inns, air terminals and nearby book shops and restaurants and so on.) with free or nominal fee- based remote web access.

6. State one difference between Wi-Fi hotspot and internet dongles.

Ans.

Wi-Fi Hotspot	Internet Dongles
It allows accessibility of Internet to multiple people.	It allows accessibility to one or limited number people.
It is usually placed in public areas so that people can benefit out of it by accessing the Internet.	It is absolutely private and is therefore used by individuals at their work place or at their homes.
It has more coverage are comparatively.	Its coverage is very limited.

7. Name the technologies based upon which the World Wide Web is created.

Ans. The technologies based upon which World Wide Web is created are:
- Web servers and Web browsers
- HTTP - Hypertext Transfer Protocol
- HTML - Hypertext Markup Language

8. What is a Web Page? Also state its relationship with a Website.

Ans. 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.

9. Explain the significance of a Web Browser.

Ans. 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.

10. State the significance of IP Address in a network.

Ans. An IP Address is a group of numbers separated by full stops that identifies each computer using the Internet Protocol to communicate over a network. Therefore an Internet Protocol address governs online communication by identifying both initiating devices and various Internet destinations, thereby making two-way communication possible.

11. Give the general syntax of an URL. Also explain each of its component.

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

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

For example:

https://www.openoffice.org/why/why_compliance.html

12. Explain the significance of domain extension.

Ans. A domain extension is the suffix at the end of a domain name, such as .org, .com, .net. or .edu. If your domain name is www.openoffice.org, for example, your domain extension is .org which stands for organization and is typically used by non-commercial websites. Most extensions represent a website category or a country for example the extension .in is used to represent a website registered in India.

13. What is a Homepage?

Ans. The first page that you see when you open a website is called the homepage or index page. Suppose you type a URL www.youtube.com the first page that appears is called the homepage or index page, which provides links to navigate to other pages in the document.

The term homepage may also refer to a website that opens up first when you start your browser. Every browser gives you an option to setup a website as a homepage. Once a homepage is set every time you open the browser, it starts with the homepage.

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

(a) **TCP/IP**   (b) **HTTP**   (c) **POP**   (d) **SMTP**   (e) **FTP**

Ans. **(a) TCP/IP:** The TCP is responsible for assembling/reassembling and verifying delivery of data packets. The IP is responsible for moving of data packets between nodes.

(b) HTTP: HTTP is a protocol used to transfer data over the World Wide Web.

(c) POP: POP is a standard mail protocol that is used to receive emails from a remote server to a local email client. It allows you to download email messages on your local computer and read them even when you are offline.

(d) SMTP: SMTP is a protocol responsible for transmission of E-mail over a network.

(e) FTP: FTP is a protocol to download/upload s a file from a server using the Internet or to upload a file to a server

E. Application-based questions:

1. Mr. Deepak has designed a website for a school which constantly updates the contents by adding new pages and contents. This result in a difficulty for keeping track of changes of the files in the server and the local computer where he does the development work. He wants a software through which he can automatically update the site whenever changes are made and when he is connected to the internet. Suggest the protocol and a software that Mr. Deepak requires.

Ans. 1. **Protocol**: File Transfer Protocol

Software: Cute FTP, Filezilla or SmartFTP.

2. Mr. Rupam is the sales manager in Marocon International. He is always on the move and visits different places every month to look after the business. His professional requirements makes it mandatory for Mr. Rupam to access the Internet. But the different places and hotels where he stays in does not always provides the Internet facility. Suggest a method by which Mr. Rupam will be able to access the Internet on the move using his laptop.

Ans. Mr Rupam could use an Internet Dongle or a Wi-Fi Dongle to access the Internet on the run.

3. Vivekananda International Public School a very famous school in Birbhum is planning to

coach their students with the teachers of a reputed coaching centre for entrance examination. The coaching centre is ready to teach the student with high speed broadband internet. But the location of the school is such that there is hardly any such internet connectivity and the landline company is unable to give a leased line to the school because of their poor infrastructure. Suggest a suitable technology through which the school will be able access the online classes of the coaching centre to facilitate learning.

Ans. The situation presents a situation such that terrestrial communications (using traditional telephony grids) are not present or working optimally. Thus perhaps the best method of communication would be to use VSAT (Very Small Aperture Terminal) for communication through satellite.

4. Identify domain name(s) and URL(s) from the following list:

a. yoga@yoga.com

b. DoYogaEveryday.com

c. www.doYogaEveryday.com/old/index.html

d. 192.168.0.1

e. www.performingarts_school.org/backlink.htm

f. http://cbse.nic.in

Ans. a. Domain Name: yoga.com

b. Domain Name: DoYogaEveryday.com

c. Domain Name: doYogaEveryday.com

   URL: www.doYogaEveryday.com/old/index.html

d. IP Address

e. URL: www.performingarts_school.org/backlink.htm

   Domain Name: performingarts_school.org

f. Domain Name: cbse.nic.in

   URL: http://cbse.nic.in