

## Internet

**Q1** What is Internet?

[2011, 2012]

Or

What is Internet? Explain its different advantages.

[2016]

**Ans: –** Internet is an example of WAN. It is a world-wide global system of interconnected computer networks. It is Information Super Highway, to access information over the web. The Internet is composed of thousands of smaller telecommunications and computer networks all around the world.

### Advantages of Internet

- 1) The Internet has helped us in connecting with our friends and families.
- 2) It has given us the E-Mail, which is a fast, secure and reliable mode of communication.
- 3) The Internet has an endless knowledge supply which anyone can access that too free of cost.
- 4) GPS technology helps in getting the direction of the destination in an unknown place.
- 5) The use of ATM is very common now, and the backbone of this service is the internet.
- 6) Selling and buying have become easy with the internet.
- 7) Don't have much space left on our laptop or computer; we can use cloud storage, one more safe and reliable advantage of the internet.

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**Q2** Briefly explain how Internet evolved.

**Ans: –** Evolution of networking started way back in 1969 by the development of first network called ARPANET.

The goal of this project was to connect computers at U. S. defense & different universities.

In 1980's, the NSFnet was started to make high-capacity network strictly for academic and engineering research

In 1990s the internet working of ARPANET, NSFnet and other private networks resulted into Internet.

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**Q3** How does the Internet work?

**Ans: –** For performing any task we follow following steps on Internet –

- 1) Firstly the information or file to be sent to another computer is divided into small parts called Packets.
- 2) Each packet is given a sequential number e.g. 1, 2, 3.

- 3) Then packets are sent to the address of destination computer.
- 4) The destination computer receives the packets randomly. If packet is lost it is demanded again.
- 5) Then packets are rearranged in their correct order and get actual information/file.

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**Q4** Write about the application of Internet. [2006, 2007, 2009, 2013]

**Ans:** – Applications of Internet are as follows –

- 1) **Search Engine**: – It can be used to search anything and everything. Most popular search engines are Google, Yahoo, Bing, Ask.com etc.
- 2) **Shopping**: – Shopping has become easier with the advent of internet. We can buy or sell online using E–Commerce sites.
- 3) **Communication**: – This is a major role of the internet. It helps people to communicate either with the use of social networking websites or through E–Mails. Even chatting is a major use of the internet.
- 4) **Job Search**: – Nowadays, many people search for their jobs online as it is quicker and there is a larger variety of job vacancies present.
- 5) **Hobbies**: – Those who are having certain hobbies can try to improve on it by reading up on many aspects of their hobby.
- 6) **Research**: – Research papers are present online which helps in the researcher doing a literature review.
- 7) **Teaching**: – Several organization or websites provides on-line classes on Internet. One can get information about the different topics.

Other common application of Internet are –

- a) Make online payments.
- b) Search life partner.
- c) Book tickets for aircraft, trains.
- d) For online shopping.
- e) Playing online games.

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**Q5** Write about the different tools of Internet.

**Ans:** – The following Internet technologies and software tools exist on the Internet –

- 1) **FTP**: – FTP stands for File Transfer Protocol. Using it we can transfer any type of file between two computers.

- 2) **E-Mail**: – Allows users to send messages to each other.
- 3) **WWW**: – WWW is also known as W3 or Web. It offers a way to access documents spread over the several servers over the internet. These documents may contain texts, graphics, audio, video, hyperlinks. The development of the World Wide Web was started in 1989 by Tim Berners Lee and his colleagues at CERN laboratory in Geneva, Switzerland.
- 4) **Telnet**: – Telnet is a protocol that allows us to connect to remote computers (called hosts) over a TCP/IP network (such as the internet).
- 5) **HTTP**: – HTTP stands for Hyper Text Transfer Protocol. HTTP uses a client-server model where the web browser is the client and communicates with the web-server. The browser uses HTTP, which is carried over TCP/IP to communicate to the server and retrieve Web content for the user.
- 6) **E-Commerce**: – It is the facility of doing business through Internet. Using E-Commerce we can purchase or sell different products.

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Q6 Define the following.

- 1) **Domain Name** – Domain names are used in URLs to identify particular Web pages. For example, in the URL –

http://www.google.com/cricket.html, the domain name is google.com.

Every domain name has a suffix that indicates which top level domain (TLD) it belongs to.

There are only a limited number of such domains. For example –

- a) .gov – Government agencies
  - b) .edu – Educational institutions
  - c) .org – Organizations (nonprofit)
  - d) .mil – Military
  - e) .com – Commercial business
  - f) .net – Network organizations
  - g) .ca – Canada
  - i) .in – India
  - i) .th – Thailand
- 2) **URL** – URL stands for Uniform Resource Locator. It is the global address of documents and other resources on the World Wide Web.

**Ex:** – http://www.google.com/cricket.html

URL consists of three parts –

- a) Protocol Part – http
- b) Server Part – www.google.com
- c) File Name – cricket.html

3) **TCP/IP** – Transmission Control Protocol/Internet Protocol (TCP/IP) is the protocol which is used by a computer to access the internet. **TCP/IP** is a set of rules (protocols) governing communications among all computers on the Internet.

It is the combination of two protocols – Transmission Control Protocol (TCP) and Internet Protocol (IP).

TCP/IP dictates how information should be packaged (turned into bundles of information called packets), sent and received.

4) **IP Address** – The Internet Protocol Address (or IP Address) is a unique address that computing devices use to identify itself and communicate with other devices in the internet.

The traditional IP Address (known as IPv4) uses a 32-bit number to represent an IP address, and it defines both network and host address. A 32-bit number is capable of providing roughly 4 billion unique numbers.

IP address is 4 sets of numbers separated by period (dot) each set representing 8-bit number ranging from (0–255). An example of IPv4 address is 216.3.128.12

5) **Gateway** – A gateway is a hardware device that acts as a "gate" between two networks. It may be a router, firewall, server, or other device that enables traffic to flow in and out of the network.

A router is a common type of gateway used in home networks. It allows computers within the local network to send and receive data over the Internet.

In network gateway is used to connect dissimilar networks. It establishes an intelligent connection between a local network and external networks with completely different structures.

6) **GOPHER** – Gopher was developed in 1991. Gopher is a menu-driven interface that allows a user to browse for text information through various Gopher servers. With later versions of gopher, such as Hyper Gopher, users could also view GIF and JPEG files.

7) **Home Page** – A home page is a webpage that serves as the starting point of website. It is the default webpage that loads when we visit a web address. The home page is located in the root directory of a website.

8) **Ethernet** – Ethernet is a LAN architecture developed by Xerox Corp along with DEC and Intel. It uses a Bus or Star topology and supports data transfer rates of up to 10 Mbps.

- 9) **ISP** – An Internet service provider (ISP) is a company that provides customers with Internet access. ISPs use fiber-optics, satellite, copper wire, and other forms to provide Internet access to its customers. Some ISP companies are BSNL, VSNL, MTNL, Reliance JIO, Idea, Airtel etc.

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**Q7** What is a Host?

**Ans: –** A computer that is used to transfer data on the Internet.

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**Q8** Explain the different types of internet connections.

**Ans: –** Internet connections are –

- 1) **Dial-Up Connection (Analog 56K):** – Dial-up access is cheap but slow. A modem (internal or external) connects to the Internet after the computer dials a phone number. This analog signal is converted to digital via the MODEM and sent over a land-line serviced by a public telephone network. Using this method we cannot talk to other persons when we are using internet.
- 2) **DSL Connection:** – DSL stands for Digital Subscriber Line. It is an internet connection that is always “on”. This uses 2 lines so your phone is not tied up when your computer is connected. There is also no need to dial a phone number to connect. DSL uses a router to transport data.
- 3) **Cable Connection:** – Cable provides an internet connection through a coaxial-cable modem and operates over cable TV lines. Since the coaxial cable provides a much greater bandwidth over dial-up or DSL telephone lines, we can get faster internet speed (upto 20 Mbps).
- 4) **Wireless Connection:** – Wireless or Wi-Fi does not use telephone lines or cables to connect to the internet. It uses radio frequency. Wireless is also an always “on connection” and it can be accessed from just about anywhere.
- 5) **Cellular Connection:** – Cellular technology provides wireless Internet access through cell phones.

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**Q9** What is Email? Why it is so popular nowadays?

[2012, 2016, 2020]

Or

Explain features and uses of Email.

[2014]

**Ans: –** Email (electronic mail) is the exchange of computer–stored messages by telecommunication. Using Email we can also send text, graphics, audio, video files. Email was one of the first activities performed over the internet and is still the most popular use. A large percentage of the total traffic over the internet is Email.

World's first Email was sent by Ray Tomlinson in 1971 therefore he is known as father of Email.

### **Advantages of Email**

- 1) Email is a free tool. Once we are online, there is no further expense that we need to spend on in order to send and receive messages.
- 2) Email is quick. Once you have finished composing a message, sending it is as simple as clicking a button.
- 3) Email is simple. It is easy to use. Once our account is set up, composing, sending and receiving messages is simple.
- 4) Messages that have been sent and received can be stored.
- 5) Email is accessible from anywhere.
- 6) Email is paperless, therefore beneficial for the environment.

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**Q10** What is WWW? Explain it. [2019]

Or

What is WWW? Explain the importance of WWW in Internet. [2010]

Or

What is WWW? Explain their uses. [2005]

**Ans: –** WWW stands for World Wide Web. It is also known as W3 or Web. It is a group of many web documents which are linked together with hypertexts or hyperlinks.

The development of the World Wide Web was started in 1989 by Tim Berners Lee and his colleagues at CERN laboratory in Geneva, Switzerland. They created a protocol, Hypertext Transfer Protocol (HTTP), which standardized communication between servers and clients.

WWW offers a way to access documents spread over the several servers over the internet. These documents may contain texts, graphics, audio, video, hyperlinks.

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**Q11** Explain Browsing. [2015]

**Ans: –** Browsing means searching anything over the internet using some web browsers.

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**Q12** Which language is used for creating Web Pages? [2017]

**Ans: –** We can use HTML, DHTML, XML, Java, Python, JavaScript, VB Script, PHP etc. language for developing Web Pages.

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