1. What are the different types of networks?

- Personal Area **Network** (PAN) ...
- Local Area **Network** (LAN) ...
- Wireless Local Area **Network** (WLAN) ...
- Campus Area **Network** (CAN) ...
- Metropolitan Area **Network** (MAN) ...
- Wide Area **Network** (WAN) ...
- Storage-Area **Network** (SAN) ...
- System-Area **Network** (also known as SAN)

2. Explain the Shielded twisted pair (STP) and Unshielded twisted pair(UTP)

Ans- The basic difference between **UTP** and **STP** is **UTP** (**Unshielded twisted pair**) is a **cable** with wires that are **twisted** together to reduce noise and crosstalk. On the contrary, **STP** (**Shielded twisted pair**) is a **twisted pair cable** confined in foil or mesh **shield** that guards the **cable** against electromagnetic interference.

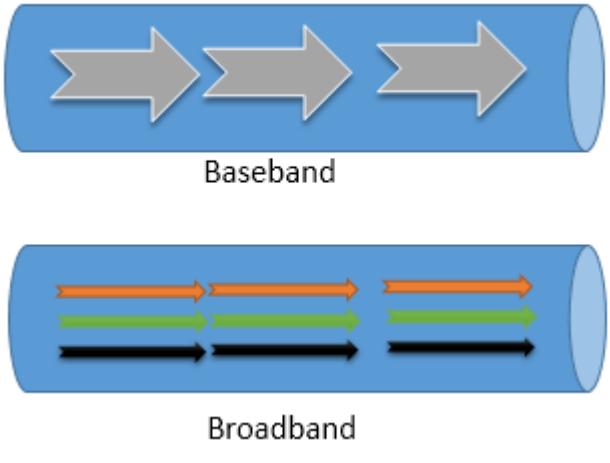
3. What is difference between baseband and broadband transmission?

Ans- Differences between Baseband and Broadband Explained

This tutorial explains the differences between the baseband and broadband transmissions in detail. Learn what the baseband and broadband transmissions are and how they differ from each other.

Both baseband and broadband describe how data is transmitted between two nodes. Baseband technology transmits a single data signal/stream/channel at a time while broadband technology transmits multiple data signals/streams/channels simultaneously at the same time.

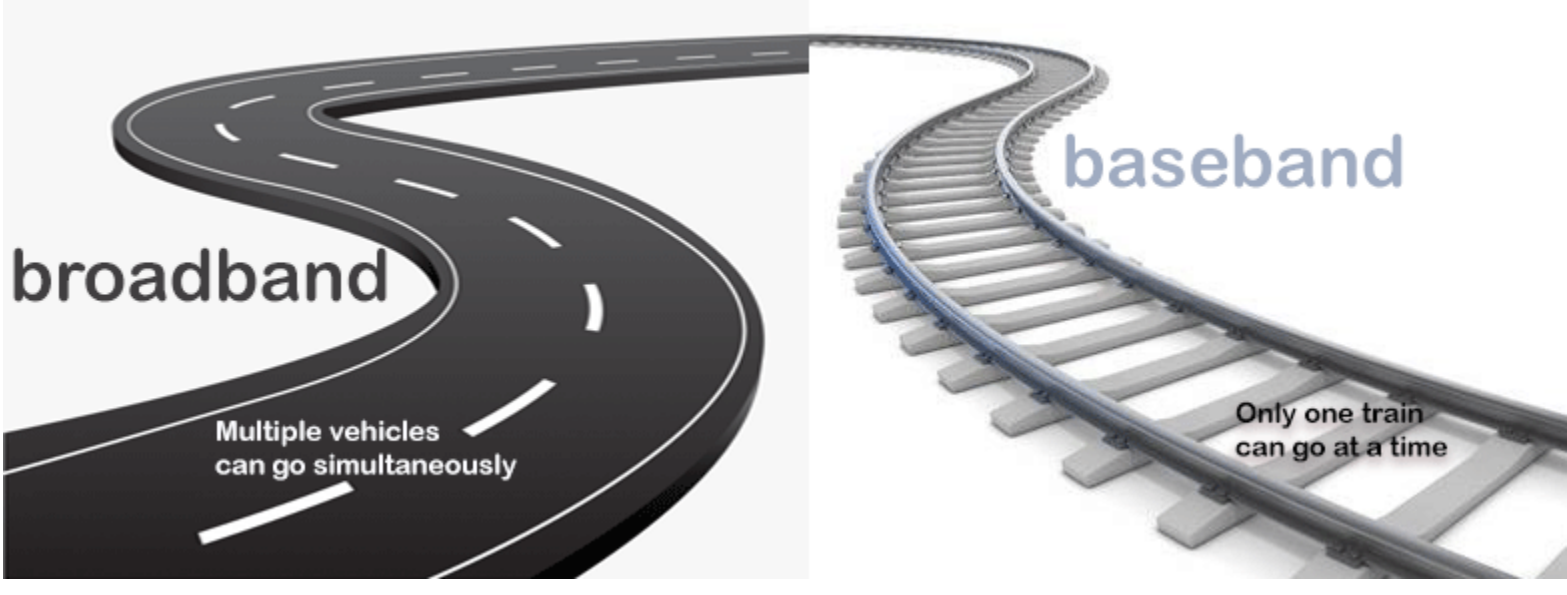
The following image shows an example of both technologies.



To understand the basic differences between both technologies, consider the baseband as a railway track and the broadband as a highway. Like, at a time, only one

train can go on a railway track, in the baseband transmission only one data signal can be transmitted at a time.

Unlike a railway track on a highway, multiple vehicles can go simultaneously. For example, on a 3 lanes highway, 3 vehicles can go at the same time. Same as a highway, in the broadband transmission, multiple data signals can be transmitted at the same time.

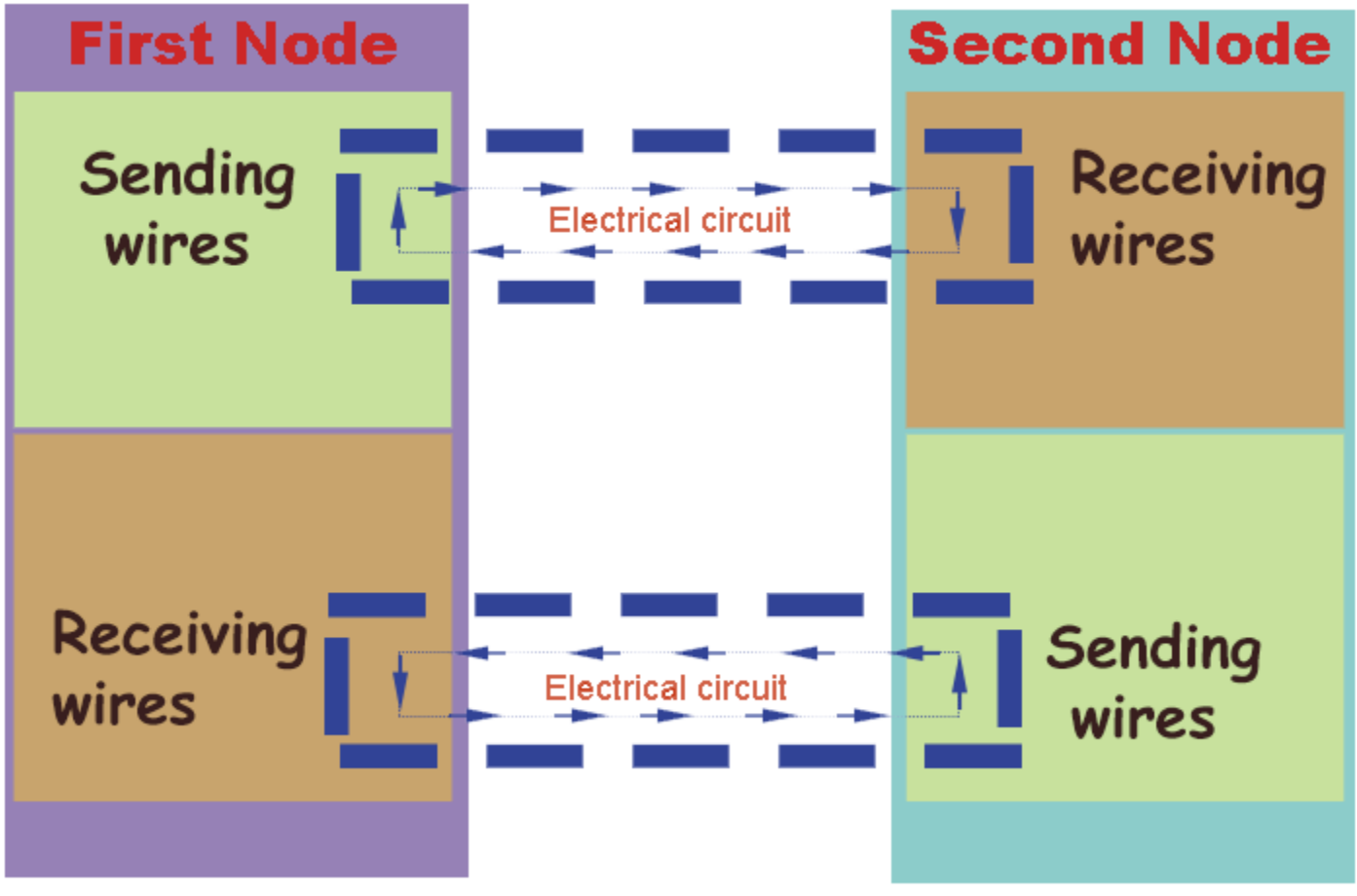


Technical differences between the baseband and broadband transmissions

Baseband technology uses digital signals in data transmission. It sends binary values directly as pulses of different voltage levels. Digital signals can be regenerated using repeaters in order to travel longer distances before weakening and becoming unusable because of attenuation.

Baseband supports bidirectional communication. It means, this technology can send and receive data simultaneously. To support bidirectional communication, this technology uses two separate electric circuits together; one for sending and another for receiving.

The following image shows an example of this.



Although baseband transmits only a single data stream at a time, it is possible to transmit signals of multiple nodes simultaneously. This is done by combining all the signals into a single data stream. To combine the signals of multiple nodes, a technology known as multiplexing is used. Baseband supports the Time Division Multiplexing (TDM).

To learn the types of multiplexing and how the multiplexing is done, you can check this tutorial.

Multiplexing and Demultiplexing Explained with Types

Baseband technology is mainly used in Ethernet networks to exchange data between nodes. This technology can be used on all three popular cable media types of Ethernet; coaxial, twisted-pair, fiber-optic.

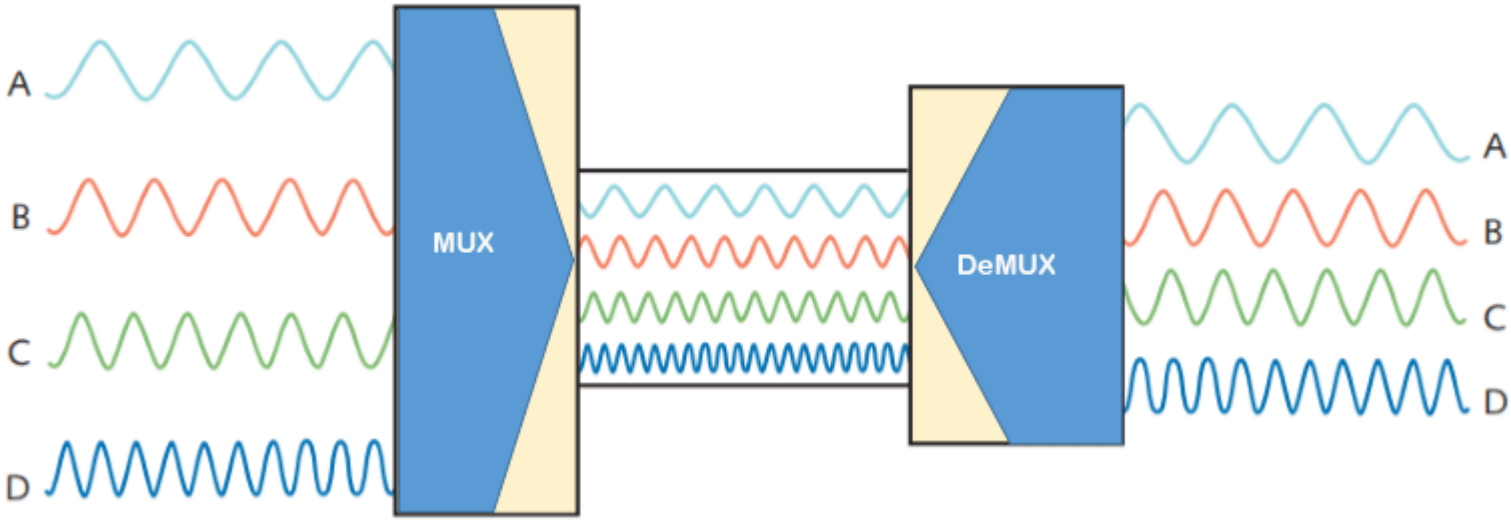
Broadband transmission

Broadband technology uses analog signals in data transmission. This technology uses a special analog wave known as the **carrier wave**. A carrier wave does not contain any data but contains all properties of the analog signal. This technology mixes data/digital signal/binary values into the carrier wave and sends the carrier wave across the channel/medium.

To transmit data of multiple nodes simultaneously, this technology supports the Frequency Division Multiplexing. FDM (Frequency Division Multiplexing) divides the channel (medium or path) into several sub-channels and

assigns a sub-channel to each node. Each sub-channel can carry a separate carrier wave.

The following image shows an example of this process.

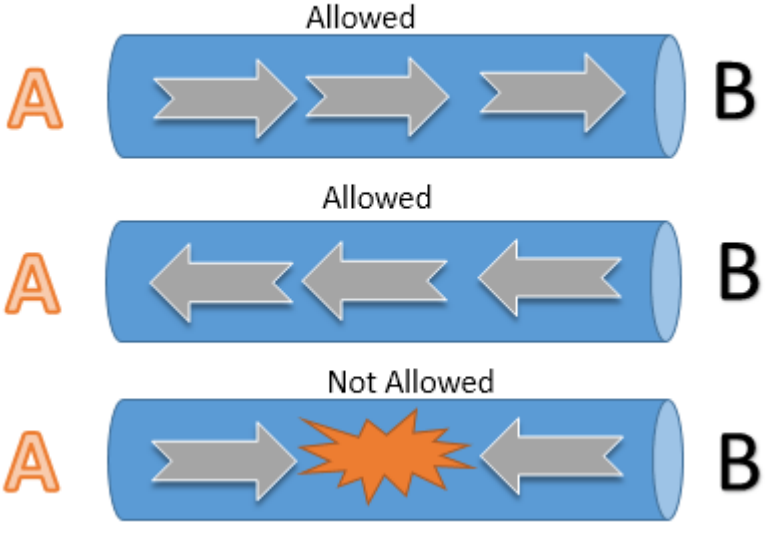


Analog signals can be regenerated using amplifiers in order to travel longer distances.

Broadband supports only unidirectional communication. It means, nodes connected at both ends of a medium can send or receive data but can't perform both actions simultaneously. Only one action is allowed at a time.

For example, two nodes A and B are connected through a cable that uses broadband technology to transmit signals. When node A transmits signals, node B receives the transmitted signals and when node B transmits signals, node A receives the transmitted signals.

The following image shows this example.



Broadband is typically used in an environment that transmits audio, video, and data simultaneously. For example, Cable TV Networks, Radio stations, and Telephone companies. Usually radio waves, coaxial, fiber-optic cables are used for broadband transmission.

Key differences between baseband and broadband transmissions

Baseband transmission	Broadband transmissio
Transmit digital signals	Transmit analog signals
To boost signal strength, use repeaters	To boost signal strengt amplifiers
Can transmit only a single data	Can transmit multiple s

stream at a time	at a time
Support bidirectional communication simultaneously	Support unidirectional communication only
Support TDM based multiplexing	Support FDM based mu
Use coaxial, twisted-pair, and fiber-optic cables	Use radio waves, coaxia fiber optic cables
Mainly used in Ethernet LAN networks	Mainly used in cable an networks

4. What is the difference between a hub, modem, router and a switch?

ANS- **In a hub**, a frame is passed along or "broadcast" to every one of its ports. It doesn't matter that the frame is only destined **for** one port. The **hub** has no way of distinguishing which port a frame should be sent to.

...

Hub vs **Switch** vs **Router**.

template	Address used **for** data transmission
Hub	MAC address
Switch	MAC address

Router IP address

5. When you move the NIC cards from one PC to another PC, does the MAC address gets transferred as well?

AC address when the **NIC card** was replace by **another one**. When **you move the NIC cards from one PC to another PC**, **does the MAC address gets transferred as well**? Yes, that's because **MAC addresses** are hard-wired into the **NIC** circuitry, not the **PC**. This also means that a **PC can** have **a different M**

6. When troubleshooting computer network problems, what common hardware-related problems can occur?

Ans- When **troubleshooting computer network problems, what common hardware-related problems can occur**? A large percentage of a **network** is made up of **hardware**. **Problems** in these areas **can** range from malfunctioning hard drives, broken NICs **and** even **hardware** startups.

7. In a network that contains two servers and twenty workstations, where is the best place to install an Anti-virus program?

Ans- In a network that contains two servers and twenty workstations, where is the best place to install an Anti-virus program?

The best solution is to install anti-virus on all the computers in the network. This will protect each device from the other in case some malicious user tries to insert a virus into the servers or legitimate users.

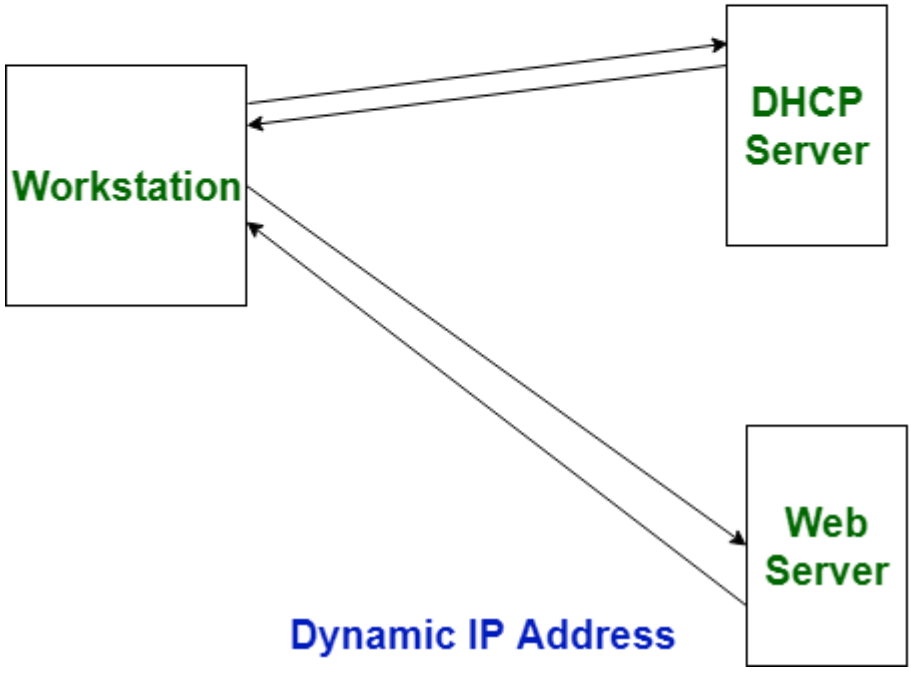
8. Define Static IP and Dynamic IP? Discuss the difference between IPV4 and IPV6.

Ans-IP stands for Internet Protocol. IP address may be a distinctive numerical symbol allotted to every device on a network to spot each affiliation unambiguously.

The distinction between Static and Dynamic IP address lies inside the length of allotted scientific discipline address. The static scientific discipline address is fastened scientific discipline address that is manually

allotted to a tool for a protracted amount of your time. On the opposite hand, the Dynamic scientific discipline address oft changes whenever user boots his/her machine, and it's mechanically allotted.

Static IP Address



Dynamic IP Address

Difference between Static and Dynamic IP address:

S.NO	Static IP Address	Dynamic IP address

S.NO	Static IP Address	Dynamic IP address
1.	It is provided by ISP(Internet Service Provider).	While it is provided by DHCP (Dynamic Host Configuration Protocol).
2.	Static ip address does not change any time, it means if a static ip address is provided then it can’t be changed or modified.	While dynamic ip address change any time.
3.	Static ip address is less secure.	While in dynamic ip address, there is low amount of risk than static ip address’s risk.

S.NO	Static IP Address	Dynamic IP address
4.	Static ip address is difficult to designate.	While dynamic ip address is easy to designate.
5.	The device designed by static ip address can be trace.	But the device designed by dynamic ip address can’t be trace.
6.	Static ip address is more stable than dynamic ip address.	While dynamic ip address is less stable than static ip address.
7.	The cost to maintain the static ip address is higher than dynamic ip address.	While the maintaining cost of dynamic ip address is less than static ip address.

S.NO	Static IP Address	Dynamic IP address
8.	It is used where computational data is less confidential.	While it is used where data is more confidential and needs more security.

9. Discuss TCP/IP model in detail.

Ans- The TCP/IP model is a part of the Internet Protocol Suite. This model acts as a communication protocol for computer networks and connects hosts on the Internet. It is a concise version of the OSI Model and comprises four layers in its structure.

This concept of TCP/IP is not just important for people in the computer or IT fields but also is an essential part of the Computer Knowledge syllabus, included in major competitive exams.

Before, diving deep into the different aspects of the structure, refer to the table below and know about some basic and introductory features of the model:

Basics of TCP/IP Model	
Full-Form	Transmission Control Protocol/ Internet Protocol

Developed By	**Department of Defence (DoD), United States**
Developed in	**During the 1970s**
Year for acknowledgement as a standard protocol by ARPANET	**1983**
Function of TCP	**Collecting and Reassembling Data Packets**
Function of IP	**Sending the Data Packets to the correct destination**
Number of Layers in	**4 layers**

TCP/IP Model

In this article, we shall discuss in detail the different layers of the TCP/IP model along with their functions. Also, a few sample questions based on this topic have been given further below for the reference of Government exam aspirants.

To study in detail about what is a Computer Network and its different types, candidates can visit the linked article.

Interested in learning more about Computer-related terms, applications, and software??

Strengthen your Computer Awareness with the help of links given below:

Microsoft Windows

High Level Computer Languages

Input and Output Devices

Web Browsers

Database Management System (DBMS)

Introduction to Operating System

TCP/IP Notes PDF:-Download PDF Here

History and Development of TCP/IP Model

This protocol is a result of the research and development by the Defense Advanced Research Projects Agency (DARPA) during the 1960s. Given below are a few points which had played an important role in the advancement of the TCP/IP model:

A two-network TCP/IP communications test was conducted between Stanford and University College London in 1975

An important thing which resulted in promoting this model was when the US Department of Defense declared TCP/IP as the standard for all military computer networking. This was In March 1982

In 1983, this structured protocol was adopted by ARPANET as a standard protocol

Later on other Computer and IT companies including IBM, DEC, etc. had also adapted the TCP/IP model as their standard communication protocol

In 1989, the University of California has accepted the TCP/IP code for public domain

Gradually, this Internet protocol suite or the TCP/IP model was accepted across the globe as a comprehensive framework for computer networking and Internet communication.

The TCP/IP model is considered to be similar to the Open Systems Interconnection Model. However, the framework and the structuring of the two was completely different and Transmission Control Protocol/ Internet Protocol was released prior to the OSI Model. For a detailed difference between the two, candidates can visit the Difference Between TCP/IP and OSI Model page.

Links to a few other fundamental topics and concepts have been given below for people to learn and understand one of the most complex, yet essential devices, which is the Computer:

Computer Abbreviations	Components of Computer
Computer Virus	Important Computer-related Terms
Microsoft Windows	Microsoft Office

Layers of the TCP/IP Model

Unlike the OSI model which comprises seven layers, the TCP/IP model is structured with four different layers. These four layers are:

Network Access Layer

Internet Layer

Host to Host Layer

Application Layer

Now, let us discuss each of these four layers in detail along with their functions as a part of the protocol architecture.

1. Network Access Layer

This is the bottom-most layer of the TCP/IP model architecture

It is a combination of the Data Link and Physical Layer of the OSI model

The physical transmission of data takes place at this layer

Once the frames are transmitted by a network, encapsulating the IP datagram into these frames is done in this layer

Also, the mapping of IP address into physical address is done here

Mainly, the function of this layer is to transmit the data between two devices, connected in a network

2. Internet Layer

It is the second layer of the TCP/IP model and this layer is parallel to the Network Layer of the OSI Model, in terms of the structure

Sending the data packets to their destination network is the main function of the Internet layer

The logical transmission of data takes place at this level

There are three different protocols used in this layer. These include:

IP: One of the most important protocols as it detects the IP address of a device which is later used for internetwork connections. It is using this protocol that the path with which the data shall be transmitted is decided. There are two common IP versions which are used, To know the difference between IPv4 and IPv6, visit the linked article.

ARP: It stands for Address Resolution Protocol. The physical address from the IP address can be determined using ARP.

ICMP: It stands for Internet Control Message Protocol and notification regarding datagram problems can be sent back to the user using this. Any issue with the network is immediately notified to the user by ICMP. It can only inform the user about the errors and cannot rectify the problem

3. Host-To-Host Layer

This layer is parallel to the transport layer of the OSI Model

The error-free delivery of data is the main function of this layer

There are two main protocols present in this layer:

TCP: **Another integral part, the Transmission Control Protocol is a reliable communication protocol. It manager the flow of data, i.e. the sequence and segmentation of the data**

UDP: **It is a connection-free protocol which makes it cost-effective but less reliable.**

4. Application Layer

The topic three layers of the OSI Model: Application, Presentation and Sessions, when combined together, they perform similar functions as the Application Layer of the TCP/IP model

node-to-node communication based on the user-interface occurs here

Multiple protocols are present in this layer, a few common ones have been mentioned below in brief:

HTTP: Hypertext Transfer Protocol is used to manage the communication between the server and web browsers

NTP: Network Time Protocol can set one standard time source in our computer, which enables sync between the server and the user

TELNET: Telecommunication Network is used to have access to files present of the Telnet network and manage them on internet

Other protocols of Application layer include

Network File System (NFS), Secure Shell (SSH), Simple Mail Transfer Protocol (SMTP), Trivial File Transfer Protocol (TFTP), etc.

10. What is a Web Browser (Browser)? Give some example of browsers.

Ans- A web browser, or simply "browser," is an application used to access and view websites. Common web browsers include Microsoft Internet Explorer, Google Chrome, Mozilla Firefox, and Apple Safari.

The primary function of a web browser is to render HTML, the code used to design or "mark up" webpages. Each time a browser loads a web page, it processes the HTML, which may include text, links, and references to images and other items, such as cascading style sheets and JavaScript functions. The browser processes these items, then renders them in the browser window.

FTP: File Transfer Protocol, as the name suggests allows easy transferring of files

Early web browsers, such as Mosaic and Netscape Navigator, were simple applications that rendered HTML, processed form input, and supported bookmarks. As websites have evolved, so have web browser requirements. Today's browsers are far more advanced, supporting multiple types of HTML (such as XHTML and HTML 5), dynamic JavaScript, and encryption used by secure websites.

The capabilities of modern web browsers allow web developers to create highly interactive websites. For example, Ajax enables a browser to dynamically update information on a webpage without the need to reload the page. Advances in CSS allow browsers to display a responsive website layouts and a wide array of visual effects. Cookies allow browsers to remember your settings for specific websites.

While web browser technology has come a long way since Netscape, browser compatibility issues remain a problem. Since browsers use different rendering engines, websites may not appear the same across multiple browsers. In some cases, a website may work fine in one browser, but not function properly in another. Therefore, it is smart to install multiple browsers on your computer so you can use an alternate browser if necessary.

10. What is a search engine? Give example.

Ans- **A search engine is a web-based tool that enables users to locate information on the World Wide Web. Popular examples of search engines are Google, Yahoo!, and MSN Search. Search engines utilize automated software applications (referred to as robots, bots, or spiders) that travel along the Web, following links from page to page, site to site. The information gathered by the spiders is used to create a searchable index of the Web.**

11. What is the Internet & WWW? What are the uses of internet in our daily life?

Ans- Uses of the Internet in our daily life is depending on desires and goals. Activities in our daily life are decided after the use of the Internet. Internet innovated our daily life. We spend lot's of time on the Web.

Positive use of the Internet makes our lives easy and simple. The Internet provides us useful data, information, and knowledge for the personal, social and economic development and it is up to us to utilize our time on the world wide web in a productive manner. The Internet is a revolution in information technology.

While there are various uses of the Internet but you can use the internet for getting an online education. You can use the Internet to promote your business online.

You can do online courses and improve your writing, communication, business, and online marketing skills. Online shopping, social media, emails, chatting are common things that we do daily.

You are free to use the Internet. The Internet is a magical tool that will help you to become successful in your career and business. But only the positive and productive use of the Internet.

The global network of computers has changed our lives tremendously. We are hungry to use the Internet. That's why more than 40% of the world's population is connected to the Internet according to internetlivestatus.com. This is because we are connected to various information and lifestyle facilities. It is because a large number of new people are getting connected to the Internet via their portable devices every day.

We start our day after notifications and emails. This means that as soon as we wake up we are flooded with information from different sources. Sometimes it is struggling to prioritize and decide which information is useful and which is not. Using the Internet positively means we can decide what is important for the day.

The Internet is a sea of data and information in which a little dip can speed up and change the way we live and do business. That's why it is really important and challenging to use the Internet in as many of our daily life activities as possible. The use of the Internet in education **is providing new opportunities for both students and educators alike.**

There are many Productive things you can do on the Internet**. So, Let's start to know one by one what role the Internet is playing in our lives. How is the Internet affecting our life? What INTERNET activities we are doing daily?**

Uses of the Internet in our Daily Life

Following points will help you learn why the internet is important. How the internet changed the world. What are the advantages for you if you're connected to the internet? How the internet is influencing your life. So, Let's begin:

1. Uses of the Internet in Students daily life

Students have a free platform to learn throughout their lifetime. People in the age group 18 to 35 are among the most frequent users of the Internet today and these people are mostly students from all over the world. They are using the Internet to learn new skills and even acquire degrees in professional online courses.

Similarly, educators like us are using the Internet for teaching and sharing our knowledge and experience with the world. There are many websites which help to explore what your hidden potential is and which profession would suit you the best.

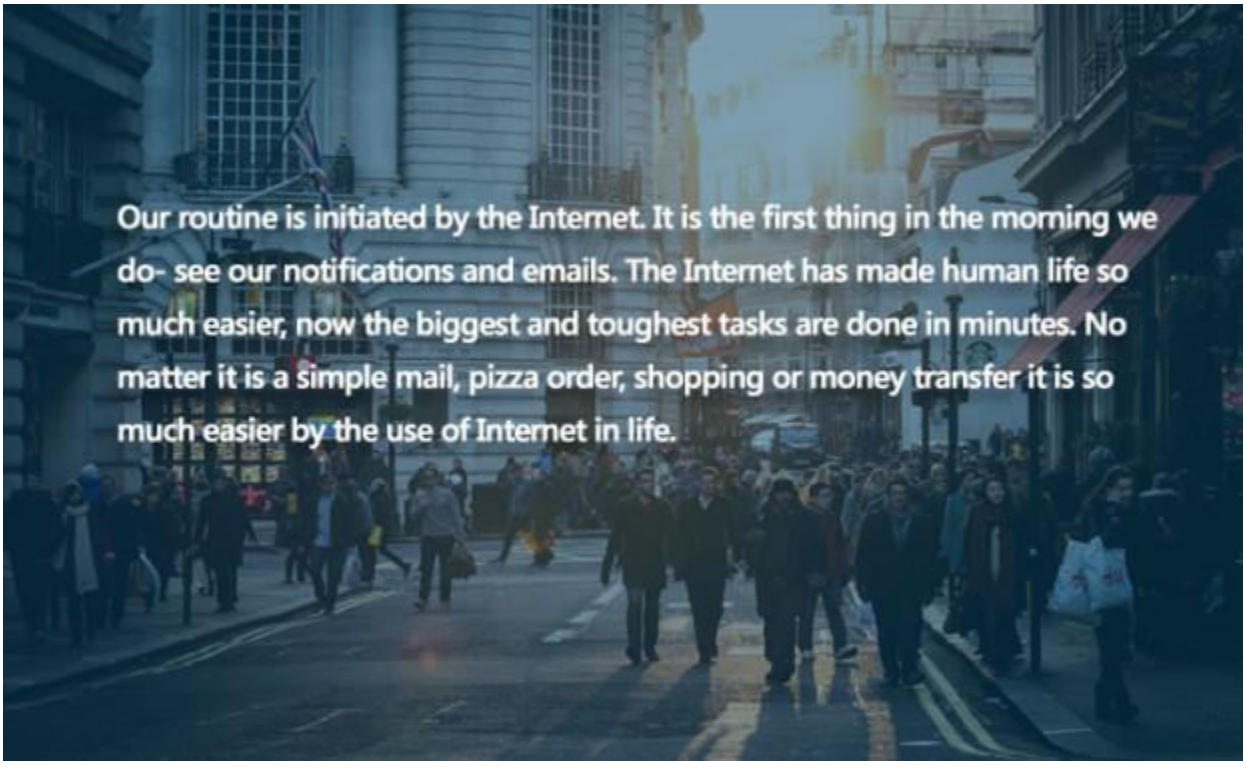
It wasn't possible before the advent of the Internet to expand knowledge at this speed. That's why the Internet is playing a crucial role in our education. Now it is possible to get study material and resources for all classes at http://www.ncert.nic.in/ncerts/textbook/textbook.htm This is how students can use The INTERNET in their daily life.

Related:

Benefits of online learning for students & Online Education

Benefits of creating an own website for students

2. Uses of the Internet to increase the speed of daily tasks



Our routine is initiated by the Internet. It is the first thing in the morning we do- see our notifications and emails. The Internet has made human life so much easier, now the biggest and toughest tasks are done in minutes. No matter it is a simple email, pizza order, shopping or money transfer it is so much easier by the use of the Internet in life.

Here you can learn more: **Importance of eCommerce in our daily life**

3. Uses of the Internet for business promotion and innovation

We also use the Internet to promote our business. We can sell our products by using various e-Commerce solutions on the Internet. E-commerce is booming on the Internet and we can see new services and creative business starting up every single day, which in turn is creating jobs and thereby reducing unemployment.

I think if our youth of India or from other countries learn and use the Internet seriously they can get hundreds of options for their careers on the Internet. I believe that the uses of the Internet in business have brought about an exciting stir in the business world and it will not hold back anymore.

Use of Google Ad words, Facebook ads, and content marketing are common in product and services marketing on the Internet. People are always looking for ways on the Internet to grow their business.

Learn More: **Importance of innovation in business**

4. Uses of the Internet for shopping in our daily life

Shopping has become a hassle-free task now and almost anybody can order products online after comparison with other websites. The boom and the resultant competition in the online shopping business are evident. Shopping sites are more interesting because of the huge discounts different companies are offering customers.

People are attracted to them and this is good news especially for the Indian shopper because of our frugal spending habits. The customer can pay cash for the delivery of a product delivered to his house in a few hours and can return the product if he is not satisfied with it.

Shopping on the Internet is affordable, convenient and saves time. The Use of flipkart.com, alibaba.com, amazon.com, paytm.com, snapdeal.com, etc. for online shopping is common. That's how the Internet is affecting our shopping habits in daily life. And all this process is called eCommerce. eCommerce has changed business and now it's an important part of our life.

Learn: **How eCommerce has changed business**

5. Use of the Internet for research and development

The pace of work towards innovation and quality of research is developed by Internet tools. It is not tough to the research on Internet. From small business owners to big universities everyone is getting the benefits of Internet for research and development.

The pace of work towards innovation and quality of research is developed by Internet tools. It is not tough to research on the Internet. From small business owners to big universities everyone is getting the benefits of the Internet for research and development. Data analysis, data entry, data research, data management, etc. services are in demand.

A person who is a Data scientist and data analyst **is really important for innovative decision-making. Even the** importance of Microsoft Excel in business **is being realized by people now. Similarly, CRM and Google Analytics is helping businesses to analyze the consumer's behavior on the websites and advertising campaigns.**

Decision making is an important part of all kind of business and organizations. Success and failure depend on our decision. After the rise of online business and higher competition on the Internet to conduct business, it's really important that decisions do not be a burden on the organization. That's why today you can visualize, analyze and monitor customers data in real-time by using data analysis tools. That helps the business to remain competitive in the market by better data analysis.

Any information we need regarding health, money, law, RTI, etc. everything is in front of us within a few seconds. So, it is really important that we use the power of the Internet for practical benefits.

Related: **How to perform market research online**

6. Use of the Internet provide us quick and free communication

The Internet is undoubtedly the most effective and far-reaching communication tool we have at present. Communication on the Internet is free and fast. We all are connected with each other on various computers and IP. Skype, chat messengers, social media is common for personal and professional purposes.

Indeed we are also using standardized communication protocols but the Internet evolves constantly by using artificial intelligence and search engines to find out how we communicate, how this can be made simpler for us to use and have a better experience in the shortest possible time.

This ability to communicate at breakneck speeds enables us to finish our tasks faster and become more efficient.

Related: Uses of Email in Business Communication

7. International uses of the Internet by working remotely and providing business services

It is hard to imagine how many people working in 9 to 5 jobs want to leave those jobs and work independently as freelancers or start their own business. The emergence of websites such as Upwork.com, freelancer etc. websites has given people the option to work remotely (from home) according to their own schedule and commitment.

It is obvious that the presence of the Internet has made doing business much easier. But it has also created its own set of challenges such as high competition, needs for quality content, etc. But knowledge is power and anyone can do business and job after learning more about it.

As the newer generations start to log into the Internet there are possibilities of completely new business and jobs. Nowadays the Internet is widely used in making money. If you have talent, then you can earn money by sitting at home on the Internet.

It is hard to imagine how many people working in 9-5 jobs want to leave into jobs and work independently as freelancers or start their own Internet business. The emergence of websites such as Upwork.com, Freelancer websites has given people the option to work remotely (from home) according to their own schedule and commitment.

Thousands of freelancer or professionals are doing this on a daily basis to earn more than their bread and butter cost. Facebook business pages, Google AdWords, Paytm, blogs, YouTube channels, Amazon and other affiliate marketing methods are various tools used to make money by providing things of value to Internet users.

If you have an idea which can provide a facility to people then you can start an online business by using any computer and information technology tool.

Related: **Advantages and disadvantages of freelancing**

8. Uses of the Internet in Money Management

The use of the Internet is not limited to only earning money, it can also be used to manage money. We can now see hundreds of websites, apps, and other tools that help us in handling daily transactions, transfers, management, budget planning, etc. and this trend is growing steadily.

The use of Internet banking and mobile banking use is also growing. All the banks are really working hard to provide Internet banking and mobile apps to empower people to utilize the power of the Internet and the latest money management tools. Buxfer.com, mint.com, etc. websites and apps are providing free and premium services to manage your money.

Related: **How to make the best use of the internet as a small business owner**

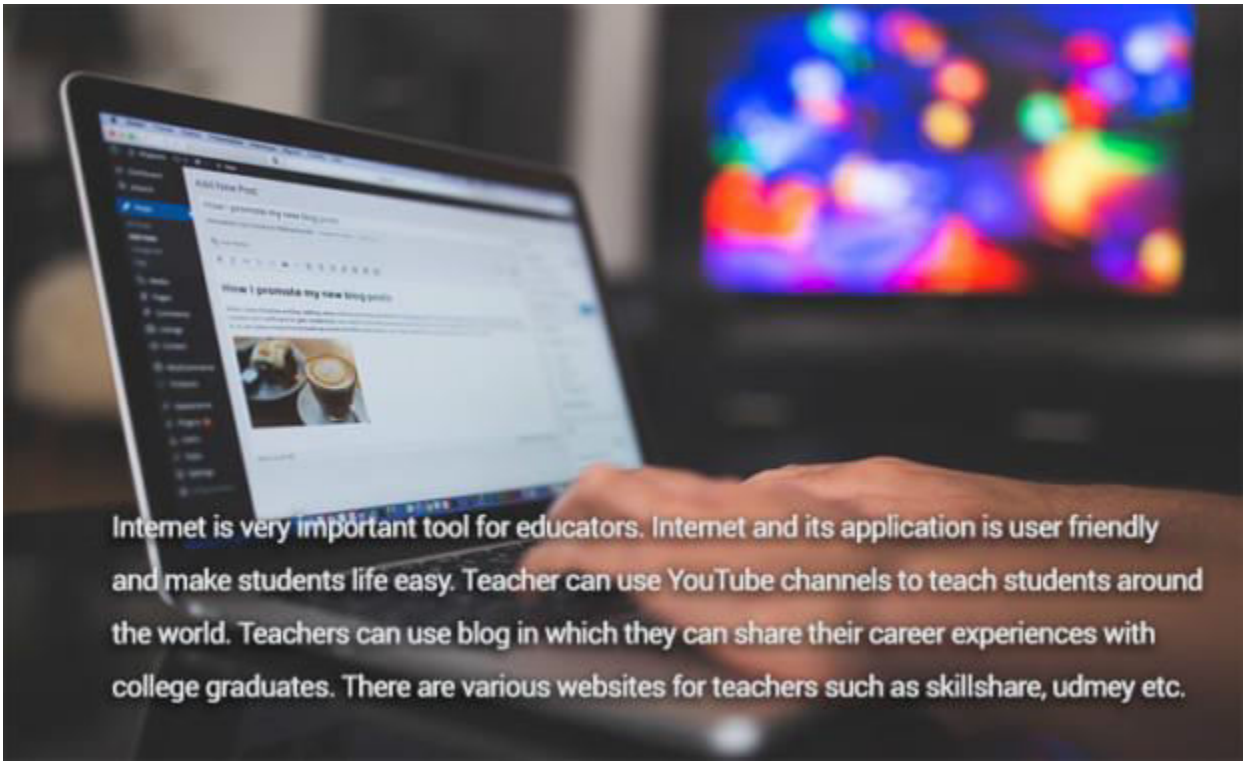
9. Uses of the Internet in Everyday Politics

Internet is a great tool for politicians to connect with people. The uses of the Internet are not only in personal and business life but it is common now in politics. Politicians are using various methods to influence people and youth on social media to favor their party. They are also using it to criticize other political parties.

Our Prime Minister of India Mr Narender Modi and Chief Minister of Delhi Mr Arvind Kejriwal are very active with their followers on Twitter and Facebook and sharing views on a particular topic. It is a widely accepted fact that Mr. Modi's success is largely attributed to his presence on social media and an active social media team.

It is also good for people to know about the progress of ministers on a particular task. If governing political parties use social media to show the progress of their work then it is great. But if they are only using for condolence purposes then I think they have to think again about their social media political strategies.

10. Uses of the Internet for Teaching and Sharing Knowledge with others



The Internet is a very important tool for educators. The Internet and its application is user-friendly and make students life easy. A teacher can use YouTube channels to teach students around the world. Teachers can use the blog in which they can share their career experiences with college graduates. There are various websites for teachers such as Skillshare, udmey, etc.

If you're free and want to spend your time doing productive things then create your own website. In the website, you can train people about the skills you're a master in.

Related:

How teachers can make a difference in the world

What things teachers need to learn about computers and the internet

11. Solving the problems of others by the use of internet

Solving problems of others by the use of internet

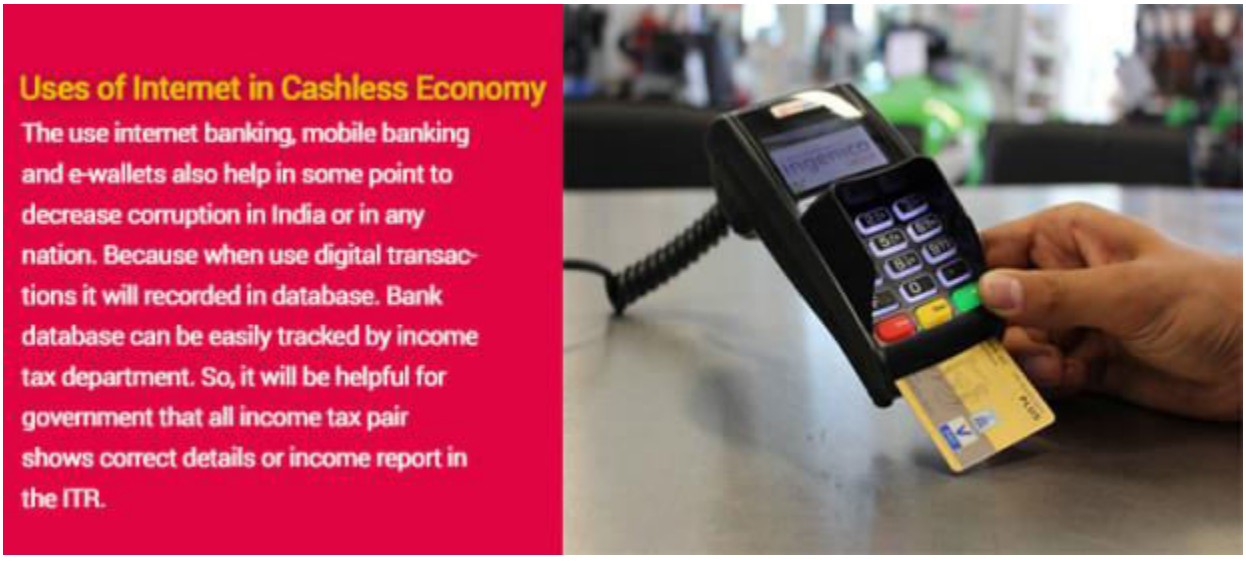
This use of internet is not only beneficial for others who are getting the solution but also for the people who give answer. Answer provider on the forums are mostly blogger, internet marketers and business.

You can determine the importance of the internet that it is mostly used today to solve the problems of others. Online forms, social groups are the platform in which you can provide a solution. For example, people ask on Quora and then people who know the solution answer.

This use of the internet is not only beneficial for others who are getting the solution but also for the people who give the answer. Answer provider on the forums are mostly bloggers, internet marketers, and business. They use such a platform to connect with their target users or clients or readers.

Related: **Discover the Best Home Business Opportunities**

12. Uses of the Internet in Cashless Economy



The Internet is very useful for economic development. The use of internet banking, mobile banking, and e-wallets also help at some point to decrease corruption in India or in any nation.

It's because when using digital transactions it will be recorded in the database. Bank database can be easily tracked by the income tax department. So, it will be helpful for a government that all income tax pair shows correct details or income report in the ITR.

Another thing is that offline cash transactions often not calculated and mentioned by people such as rent. If we use the internet or cashless internet transactions then it will help others to show their income report. If we're giving rent money in cash or paying in cash for other services then it is highly possible for the receiver to hide that money for income tax report.

I am not saying that it should be mandatory to use but it can be helpful. But for that people also need education and awareness about internet banking. Also, banks need to update their banking systems. The government also needs to create privacy and cybersecurity policies etc.

So, uses of the internet in digital transactions are time-saving and helpful for the country. But be aware of cyber crimes and get more knowledge about internet security.

13. Uses of the Internet in environmental development

The Internet can play a very important role in Environmental development. We can use Internet tools such as social media and blogs by promoting environment development activities. Sharing valuable information and knowledge regarding trees, plants and water will make positive effects on internet users. There are billion people use the internet if each day one people inspird to save trees and plant then it will be a great use of the internet.

13.What is an Internet Service Provider? Give some example of ISP in India.

Ans- An Internet Service Provider **(**ISP**) is a** company **such as AT&T, Verizon, Comcast, or Spectrum that provides** Internet access **to companies, families, and even mobile users.** ISPs **use fiber-optics, satellite, copper wire, and other forms to** provide Internet access **to its customers.**

Rank	ISP	Broadban

1	Reliance Jio	388,390,116
2	Airtel	148,569,937
3	Vodafone Idea	117,451,416
4	BSNL	24,507,496

14. Discuss the difference between MAC address, IP address and Port address.

Ans- Both MAC Address and IP Address are used to uniquely defines a device on the internet. NIC Card's Manufacturer provides the MAC Address, on the other hand Internet Service Provider provides IP Address.

The main difference between MAC and IP address is that, MAC Address is used to ensure the physical address of computer. It uniquely identifies the devices on a network. While IP address are used to uniquely identifies the connection of network with that device take part in a network.

Let's see the difference between MAC Address and IP Address:

S.NO	MAC Address	IP Address
1.	MAC Address stands for Media Access Control Address.	IP Address stands for Internet Protocol Address.
2.	MAC Address is a six byte hexadecimal address.	IP Address is either four byte (IPv4) or eight byte (IPv6)

		address.
3.	A device attached with MAC Address can retrieve by ARP protocol.	A device attached with IP Address can retrieve by RARP protocol.
4.	NIC Card's Manufacturer provides the MAC Address.	Internet Service Provider provides IP Address.
5.	MAC Address is used to ensure the physical address of computer.	IP Address is the logical address of the computer.
6.	MAC Address operates in the data link layer.	IP Address operates in the network layer.

7.	MAC Address helps in simply identifying the device.	IP Address identifies the connection of the device on the network.
8.	MAC Address of computer cannot be changed with time and environment.	IP Address modifies with the time and environment.
9.	MAC Address can't be found easily by third party.	IP Address can be found by third party.

15. How do we view my Internet browser's history?

Ans- Today, all major browsers have functionality that allows you to quickly and easily view your Internet browser's history. However, as multiple devices contain browser history, there are multiple ways to view as well. To proceed, choose your devices from the section below and follow the instructions.

Desktop or laptop computer.

Android phone or tablet running Google Chrome.

iPhone or iPad running Safari.

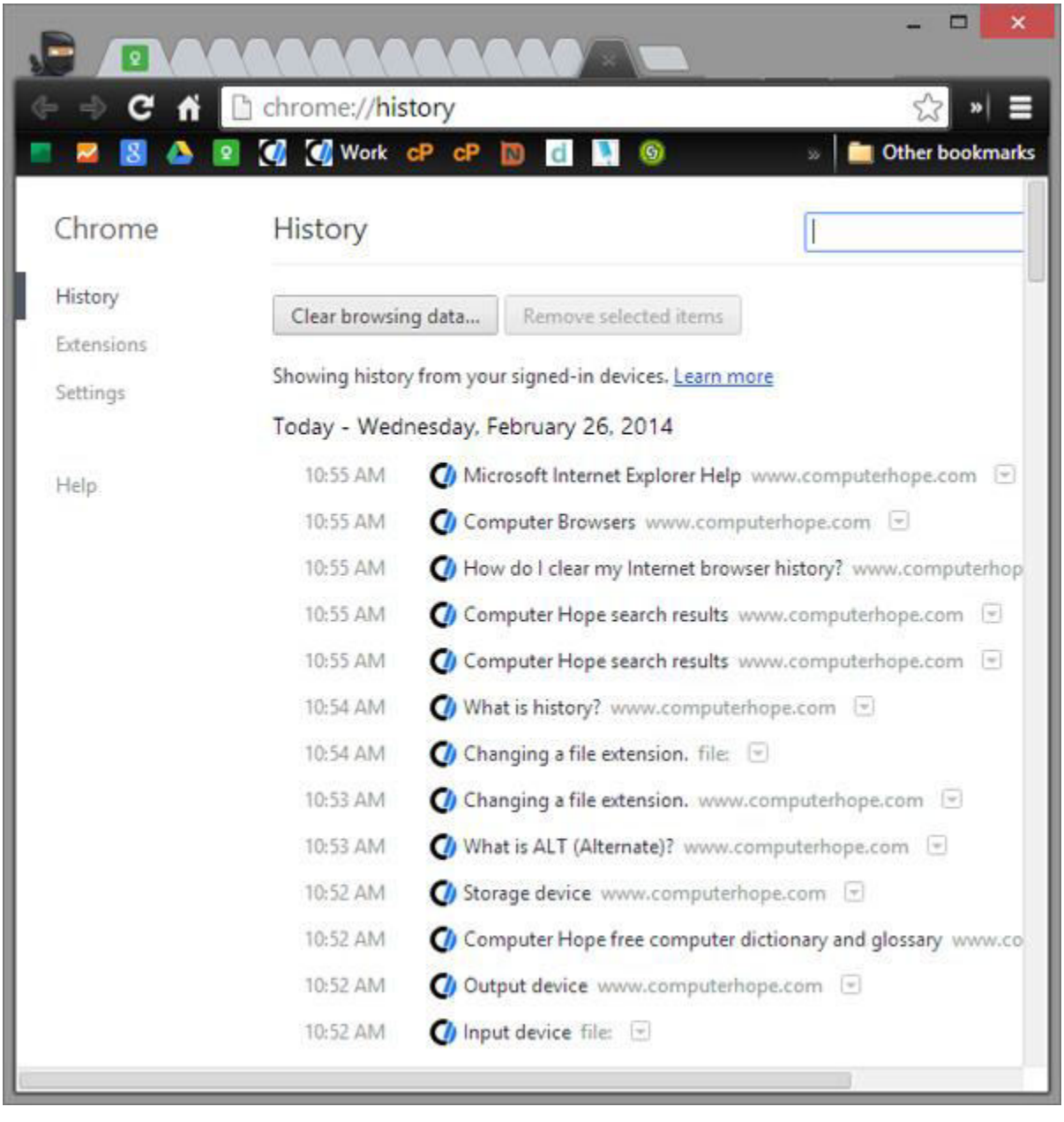
Desktop or laptop computer

If you are using Windows, Linux, or macOS, there are quick shortcut key combinations that allow you to view your history.

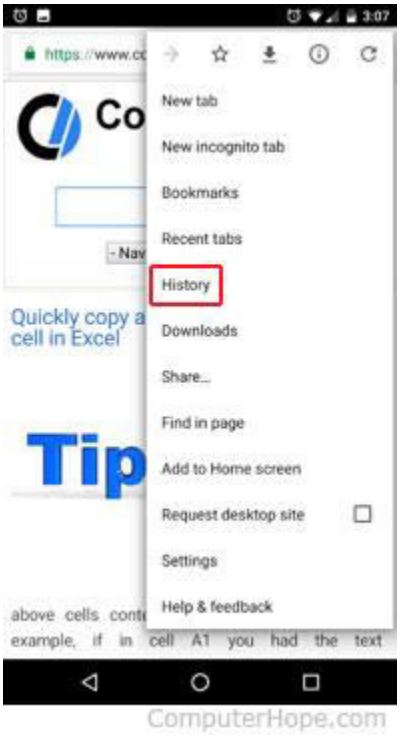
Windows and Linux users: Ctrl+H

Apple users: Command + Shift + H

Once one of the above shortcut keys is pressed, a history section similar to the example below should appear. In the following screenshot, browsing history is being viewed in Google Chrome.



Android phone or tablet running Google Chrome



Users who are running Google Chrome on their Android phone or tablet can view their history with the following steps.

Open the Google Chrome Internet browser.

In the upper-right corner of the screen tap the ⋮ icon.

In the drop-down menu that appears, select history and shown in the image.

The following page contains your device's history.

iPhone or iPad running Safari

Users who are running Safari for iOS on their iPhone or iPad can view their history with the following steps.

On your device, open the Safari Internet browser.

In the lower-left corner of the browser window, press and hold the back arrow.

The next screen contains your browser's history.