Internet and Computer Notes for Bank Exams - NABARD G.K. Notes

These days the Internet has become a necessity rather than a luxury. It is an important means of getting information right at your doorstep. Moreover, various Government Exams like the **SSC CGL, SSC CPO, RRB NTPC, IBPS PO, SBI PO, RBI Grade B, etc**. ask various questions on **Computer Awareness** in either a separate section or within the **General Awareness** section. Studying about Viruses is also crucial in this day & age of Internet. This is also a hot topic asked in Govt exams. To boost up your preparation, you can read about **Internet and Computer Notes** for Bank Exams in detail!

#1. All About Internet and Computer Notes for Bank Exams

- The Internet is a global network of computers connected by network cables or through satellite links.
- It is also called **the network of networks** and **the Super Network**.
- When two computers are connected over the Internet, they can send and receive all kinds of information such as text, graphics, voice, video, and computer programs.
- No one actually owns the Internet, and no single person or organization controls the Internet in its entirety.
- But several organizations collaborate in its functioning and development.

#2. A Timeline of the Internet - Internet and Computer Notes for Bank Exams

1965: Two computers at MIT Lincoln Lab communicate with one another using packet-switching technology.

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1969: ARPANET (Advanced Research Projects Agency Network) of the US Defense Department was created. It is considered as the predecessor to the Internet.

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1972: Ray Tomlinson introduces network email.

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1973: Global networking becomes a reality as the University College of London (England) and Royal Radar Establishment (Norway) connect to ARPANET. The term Internet is born.

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1974: The first Internet Service Provider (ISP) is born with the introduction of a commercial version of ARPANET, known as **Telenet**.

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1982: Transmission Control Protocol (TCP) and Internet Protocol (IP), as the protocol suite, commonly known as TCP/IP, emerge as the protocol for ARPANET. TCP/IP remains the standard protocol for the Internet.

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1983: The Domain Name System (DNS) establishes the familiar .edu, .gov, .com, .mil, .org, .net, and .int system for naming websites.

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1990: Tim Berners-Lee, a scientist at CERN, the European Organization for Nuclear research, develops HyperText Markup Language

(HTML), Uniform Resource Identifier (URI) and Hypertext Transfer Protocol (HTTP)

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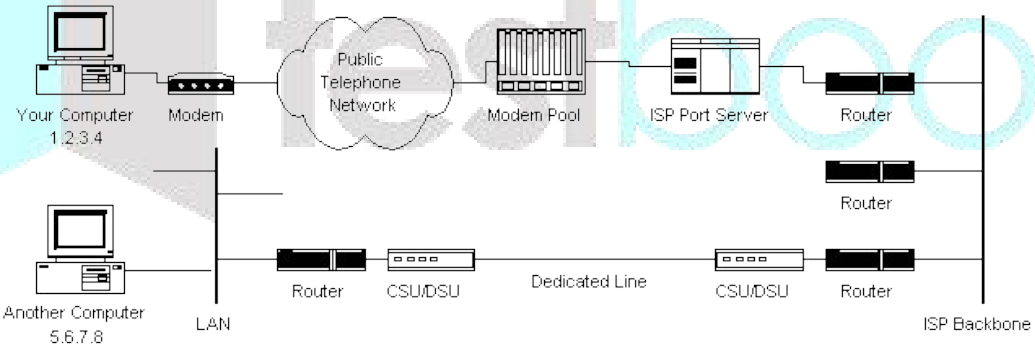
1991: CERN introduces the World Wide Web - invented by **Tim Berners Lee** - to the public.

#3. How Does Internet Work? - Internet and Computer Notes for Bank Exams

The Internet connectivity is provided by **Internet Service Providers (ISP)** like BSNL, Airtel, Reliance, Aircel Vodafone etc.



- Your computer sends digital signals to the modem (Modulator-DEModulator).
- The **modem converts the digital data into analog signals** and sends it to the ISP's local center over the telephone line.
- From there it travels through various routers and lines to reach its destination - a website server like the one of Facebook or another computer.

Internet companies such as Facebook use huge 'server farms' such as this proposed plant to store and manage data. The plants are filled with cupboard-sized racks of computer servers that store and move data such as photos.

#3.1 - IP Address

The Internet Protocol **(IP) address** is the **"roll number" of a computer connected to the Internet.**

- If you connect to the Internet through an **Internet Service Provider (ISP)**, you are usually assigned a **temporary IP address** for the duration of your dial-in session.
- If you connect to the Internet from a **Local Area Network (LAN)** your computer might have a permanent IP address or it might obtain a temporary one from a **DHCP (Dynamic Host Configuration Protocol)** server.
- In any case, if you are connected to the Internet, your computer has a unique IP address.

Computer protocols:

The Internet lets different computer networks communicate with each other using a standardized set of rules called **protocols**.
Major computer protocols are:

1. **TCP** - Transfer Control Protocol
2. **IP** - Internet Protocol
3. **POP** - Post Office Protocol
4. **SMTP** - Simple Mail Transfer Protocol
5. **HTTP** - Hypertext Transfer Protocol
6. **FTP** - File Transfer Protocol

#3.2 - TCP/IP

- This is the standard protocol of the Internet.
- When information is sent over the Internet, it is generally broken up into smaller pieces or **"packets".**
- The use of packets facilitates speedy transmission.
- It is also a safety measure to minimize the chances of losing information in the transmission process.
- **TCP is the means for creating the packets, putting them back together in the correct order at the end, and checking to make sure that no packets got lost in transmission**.

POP and SMTP:

The SMTP is used for sending emails and POP is used for receiving emails.

HTTP:

HTTP is a protocol which allows access to web pages. It was developed by Tim Berners Lee in 1990.

FTP:

FTP provides a method for copying files over a network from one computer to another.

#5. World Wide Web (WWW) - Internet and Computer Notes for Bank Exams

The World Wide Web, or simply the Web, is a **way of accessing information over the medium of the Internet.** It is a communications model and enables the exchange of information over the Internet through HTTP. It was developed by **Tim Berners Lee in 1990.**

The Web is just one of the ways that information can be distributed over the Internet. And, we don't use the Web to send an email, but the Internet.

Unique Resource Locator (URL):

Just like we have a postal address, resources on the Internet have unique addresses - URL.

A URL has two main components:

- **Protocol identifier:** For the URL http://testbook.com, the protocol identifier is HTTP.
- **Resource name:** For the URL http://testbook.com, the resource name is testbook.com.

#6. Malware - Internet and Computer Notes for Bank Exams

A malware is a software which is specifically designed to disrupt, damage, or gain authorized access to a computer system. The common types of malware are:

1. **Adware:** Displays ads while a program is running.
2. **Spyware:** Tracking software. For instance, a spyware can be installed on computers to track employees' browsing activities.
3. **Virus:** A contagious program or code that attaches itself to another piece of software, and then reproduces itself when that software is run. It is spread by sharing software or files between computers.
4. **Worm:** A program that replicates itself and destroys data and files on the computer just like a worm eats leaves.
5. **Trojan:** The most dangerous software used to obtain personal information.
6. **Rootkit:** Enables an unauthorized user to gain control of a computer system without being detected.
7. **Backdoors or trap-doors:** Provides a hidden method of bypassing security to gain access to a restricted part of a computer system for hackers or other malware.
8. **Key (stroke) loggers:** Used to acquire computer usage information. Parents can install a key logger to monitor their children's activity on the internet.
9. **Rogue security software:** A Wolf in sheep's clothing - It pretends to be a good program to remove Malware infections, but all the while it is the Malware and turns off the real antivirus program.

10. **Ransomware:** Blocks access to a computer system until a sum of money is paid. **Recent ransomware attacks** - Wannacry and Petya (Petwrap)
11. **Browser hijacker:** Changes your computer's browser settings so that you are redirected to Web sites that you had no intention of visiting.

How does malware infect your PC?

1. **Spam emails** - When the attachments of spam emails are opened, the malicious files get installed on the computer. Petya ransomware attack used this method to install the malware.
2. **Infected removable drives** - Many worms spread by infecting removable drives such as USB flash drives or external hard drives. The malware can be automatically installed when you connect the infected drive to your PC. Some worms can also spread by infecting PCs connected to the same network.
3. **Bundled with other software** - Some malware can be installed at the same time as other programs that you download. This includes software from third-party websites or files shared through peer-to-peer networks.
4. **Hacked or compromised web pages** - Software vulnerabilities of your software can give malware access to your PC. When you go to a website, it can try to use those vulnerabilities to infect your PC with malware. The website might be malicious or it could be a legitimate website that has been compromised or hacked. Beware of web pages allowing free downloads of pirated copies!
5. **Malware** - Some types of malware can download other threats to your PC. Once these threats are installed on your PC they will continue to download more threats.

#7. Antivirus - Internet and Computer Notes for Bank Exams

Anti-virus software is a program or set of programs that are designed to prevent, search for, detect, and remove software viruses, and other malicious software like worms,

trojans, adware, and more. Eg.: Kaspersky, McAfee, Norton, AVG, Panda, Microsoft Security Essentials

Cybersecurity

Cybersecurity is the body of technologies, processes, and practices designed to protect networks, computers, programs and data from attack, damage or unauthorized access. Many countries have a computer emergency response team (CERT) to handle computer security incidents.

Indian Computer Emergency Response Team (ICERT or CERT-In), under the Department of Information Technology of Ministry of Communications and Information Technology, has been designated under Section 70B of Information Technology (Amendment) Act 2008 to serve as the national agency to perform the following functions in the area of cyber security:

- Collection, analysis, and dissemination of information on cyber incidents
- Forecast and alerts of cyber security incidents
- Emergency measures for handling cyber security incidents
- Coordination of cyber incident response activities
- Issue guidelines, advisories, vulnerability notes and white papers relating to information security practices, procedures, prevention, response and reporting of cyber incidents

Read these Internet and Computer Notes carefully & you can attempt basic questions asked in the recruitment exams confidently. If you want to know more about Computers & study in detail for Computer Awareness you check this link given below!

Set of Computer Awareness G.K. Notes for Bank Exams