

COMPUTER APPLICATIONS**9. Introduction to Internet and Email****PART -II**

Answer to the following questions (2 Marks):

1. List any four types of available networks?

Types of networks

Local Area Network (LAN) Metropolitan Area Network (MAN)
Wide Area Network (WAN) Personal Area Network(PAN)
Campus Area Network (CAN) Wireless Local Area Network (W-LAN)

2. Name the two important protocols for internet?

The internet uses TCP/IP(Transmission Control Protocol/ Internet Protocol) to transmit data via various types of media.

3. What is a network?

a network is a collection of interconnected devices (such as computers, printers, etc.).

4. What is the role of ICANN ?

- The responsibility to promote global information exchange through the internet technology.
- Internet Corporation for Assigned Names and Numbers(ICANN) administers the domain name registration.
- It helps to avoid a name which is already registered.

5. What is a search engine?

- A search engine is a software system that is designed to search for information on the World Wide Web.
- Examples of popular search engines are Yahoo, Lycos, Altavista, Hotbot, Google and Askjeeves, DuckDuckGo.
- The list of content returned via a search engine to a user is known as a **search engine results page** (SERP).

6. What is a browser?

A browser is used to access websites and web pages whereas a search engine is used to search for particular information.

Internet Explorer, Chrome, Firefox, Safari, etc.

A browser is used to access the Internet whereas in order to open a search engine you need a browser.

7. What are the components of url addressing ?

URL: Uniform Resource Locator **ex:** http://www.google.com

1. Protocol: http://
2. Subdomain: www.
3. domain: google
4. top level domain(TLD): .com

8. What is a website?

- A website is a collection of webpages.
- The first page of the website is called a Home Page.
- All of these pages together make up a Website.

9. What is CC and BCC in an email?

The **CC (Carbon Copy)** field allows you to specify recipients who are not direct addressees (listed in the "To" field). This field is **optional**.

The **BCC (Blind Carbon Copy)** field is similar to **CC**, except the recipients are secret.

Each **BCC** recipient will receive the e-mail, but will not see who else received a copy. The addressees (anyone listed in the "To" field) remain visible to all recipients.

This field is **optional**.

10. What is a Static web Page?

- The content and layout of a web page is fixed
- Static Web pages are easy to develop
- Static Web pages never use databases

11. What is a Dynamic web page?

- The content and layout may change during run time
- Dynamic web page development requires programming skills
- Databases is used to generate dynamic content through queries

12. What are the benefits of e-governance?

- Reduced corruption
- High transparency
- Increased convenience
- Reduction in overall cost.
- Expanded reach of government

13. What is Phishing ?

- Phishing is a type of computer crime used to attack, steal user data, including login name, password and credit card numbers.
- It occurs when an attacker targets a victim into opening an e-mail or an instant text message.

PART-III

Answer to the following questions (3 Marks):

1. Differentiate PAN and CAN network.

PAN NETWORK	CAN NETWORK
Range- Upto 100 meters	Range- Upto 5 Kms
Speed- up to 250 Kbps	Speed- 40 KB/s TO 1 MB/s
Location- Used for shorter distance, controlled by a single person within a single building	Location- Larger than LAN, but smaller than MAN. University, school or small business, enterprise
Advantages- Efficient, Cost effective. Hotspot may connect upto 8 devices	Advantages- Cost effective, Wired or Wireless Network, High Bandwidth
Dis-Adv- Shorter distance upto 10 meters only. Data rate is low compared to other network	Dis-Adv- Difficult to manage

2. What is TCP/IP?

TCP- Transmission Control Protocol. a message to transmit and the means to reliably transmit the message.

The internet protocol (IP) addressing system is used to keep track of the millions of users.

3. Write a note on Hotspot internet service.

Hotspots are sites that offer Internet access over a wireless local area network (WLAN) by way of a router that then connects to an Internet service provider.

Hotspots utilize Wi-Fi technology, which allows electronic devices to connect to the Internet or exchange data wirelessly through radio waves

4. Differentiate Data Card and Dongles.

Dongle	Data Card
Refers to any removable component used for enabling extra security. USB Dongles can be divided into <ul style="list-style-type: none"> • WiFi Dongles • Bluetooth Dongle • Memory Dongle 	It is a removable electronic card which is used for storing data. Types of data card are <ul style="list-style-type: none"> • Expansion Card • Memory Card or Flash Card • Identification Card

5. Write a note on two access methods of connecting to internet.

Two access methods there are:

Indirect Access

- This is most common method used in home and office networks.
- The device e.g. computer connects to a network using Ethernet or WiFi and Internet using Asymmetric digital subscriber line ADSL (cable or fibre.)

Direct Access

- This is most common method used when travelling.
- The device e.g. smart phone connects directly to the Internet using 3G/4G mobile networks or public Wi-Fi.

6. Differentiate browser and a search engine with suitable examples.

browser	search engine
A browser is used to access websites and web pages whereas a search engine is used to search for particular information	A search engine is a software system that is designed to search for information on the World Wide Web.
Example: Internet Explorer, Chrome, Firefox, Safari, etc.	Examples of popular search engines are Yahoo, Google, etc.
A browser is used to access the Internet whereas in order to open a search engine you need a browser	The list of content returned via a search engine to a user is known as a search engine results page (SERP).

7. Differentiate Website and Webpage.

Webpage	Website
Consists of a Single document displayed by a browser	A collection of multiple documents displayable by a browser
Shares a unique domain name	Has its own unique domain name
Makes up a website	Contains one or more webpages

8. What is the difference between Static and dynamic web page.

Static Web Page	Dynamic Web Page
The content and layout of a web page is fixed	The content and layout may change during run time
Static Web pages never use databases	Databases is used to generate dynamic content through queries
Static web pages directly run on the browser and do not require any server side application program	Dynamic web pages runs on the server side application programs and displays the results
Static Web pages are easy to develop	Dynamic web page development requires programming skills

9. Write a note on W3C?

W3C stands for world wide web consortium.

It sets standards for the www to facilitate better communication ability.

It was established in 1994 by the creator of www, Tim Berners Lee.

10. What are Advantages of email.

The main advantages of email are listed below.

Free delivery - Sending an e-mail is virtually free, outside the cost of Internet service. There is no need to buy a postage stamp to send a letter.

Global delivery - E-mail can be sent to nearly anywhere around the world, to any country.

Instant delivery - An e-mail can be instantly sent and received by the recipient over the Internet.

File attachment - An e-mail can include one or more file attachments, allowing a person to send documents, pictures, or other files with an e-mail.

Long-term storage - E-mails are stored electronically, which allows for storage and archival over long periods of time.

Environmentally friendly - Sending an e-mail does not require paper (Paperless), cardboard, or packing tape, conserving paper resources.

PART IV

Answer to the following questions (5 Marks):

6. Explain the different types of interactions in e-governance.

G2G (Government to Government): When the exchange of information and services is within the periphery of the government, is termed as G2G interaction.

i.e. between national, state and local government entities and within different levels of the entity.

G2C (Government to Citizen): The interaction amidst the government and general public is G2C interaction. Here an interface is set up between government and citizens

G2B (Government to Business): In this case, the e-governance helps the business class to interact with the government seamlessly. It aims at eliminating red-tapism, saving time, cost and establish transparency in the business environment, while interacting with government.

G2E (Government to Employees): The government of any country is the biggest employer and so it also deals with employees on a regular basis, as other employers do. ICT helps in making the interaction between government and employees fast and efficient, along with raising their level of satisfaction by providing perquisites and add-on benefits.

1. Compare the different geographical types of Network.

Type of Network	Range	Speed	Location	Advantages	Disadv
Local Area Network (LAN)	Upto 10 Km	Upto 10-100 Mbps	Refers to same office, same building, same company and in same schools	Low Cost, Resource Sharing, Security	Area Covered Limited When number of nodes increases, performance Decreases
Metropolitan Area Network (MAN)	10 to 15 Miles	Upto 5 – 10 Mbps	MAN is a network designed to extend over an entire city	Wider than LAN	Data rate is slow compared to LAN Cost higher than LAN
Wide Area Network (WAN)	Above 1000 Kms	It Span entire countries and continents	It Span entire countries and continents	Large geographical Area	Complicated and Complex.High Cost. Requires high Performance.Devices.Low security. Cost higher than LAN
Personal Area Network (PAN)	Upto 100 meters	up to 250 Kbps	Used for shorter distance, controlled by a single person within a single building	Efficient, Cost effective and convenient. Controlled by a single person Hotspot may connect upto 8 devices	Shorter distance upto 10 meters only. Data rate is low compared to other network
Campus Area Network (CAN)	Upto 5 Kms	40 KB/s TO 1 MB/s	Larger than LAN, but smaller than MAN. University, school or small business, enterprise	Cost effective ,Wired or Wired Network, High Bandwidth Multi-departmental Network access	Difficult to manage
Wireless Local Area Network (W-LAN)	Upto 50 Kms	1 Mbps to 54 Mbps	Ranges from a single room to an entire campus Uses Wifi or Bluetooth, Radio waves	Portable Installation is quick and easy	Low Bandwidth due to interference

2. Explain any five types of internet services.

Any Five

Wireless

Radio frequency bands are used in place of telephone or cable networks. One of the greatest advantages of wireless Internet connections is the "always-on" connection that can be accessed from any location that falls within network coverage.

Mobile

Many cell phone and smartphone providers offer voice plans with Internet access. Mobile Internet connections provide good speeds and allow you to access the Internet.

Hotspots

Hotspots are sites that offer Internet access over a wireless local area network (WLAN) by way of a router that then connects to an Internet service provider.

Hotspots utilize Wi-Fi technology, which allows electronic devices to connect to the Internet or exchange data wirelessly through radio waves.

Broadband

This high-speed Internet connection is provided through either cable or telephone companies. One of the fastest options available, broadband Internet uses multiple data channels to send large quantities of information. Broadband Internet connections such as DSL and cable are considered high-bandwidth connections.

DSL

DSL, which stands for Digital Subscriber Line, uses existing 2-wire copper telephone line connected to one's home so service is. Customers can still place calls while surfing the Internet.

Cable

Cable Internet connection is a form of broadband access. Through use of a cable modem, users can access the Internet over cable TV lines. Cable modems can provide extremely fast access to the Internet.

Satellite

In certain areas where broadband connection is not yet offered, a satellite Internet option may be available. Similar to wireless access, satellite connection utilizes a modem.

ISDN

ISDN (Integrated Services Digital Network) allows users to send data, voice and video content over digital telephone lines or standard telephone wires. The installation of an ISDN adapter is required at both ends of the transmission—on the part of the user as well as the Internet access provider.

3. Explain any five internet applications with suitable examples. a

1. Internet telephony

Internet telephony (e.g. Skype) is another common communications service made possible by the creation of the Internet. VoIP stands for Voice-over-Internet Protocol, referring to the protocol that underlies all Internet communication.

2. Job search

Nowadays, many people search for their jobs online as it is quicker and there is a larger variety of job vacancies present. People can publish resume online for prospective job. Some of the web sites providing this service are naukri.com, monster.com, summerjob.com, recuritmentindia.com etc.

3. Online Shopping

The internet has also facilitated the introduction of a new market concept consisting of virtual shops. They provide information about products or services for sale through www servers. Using the internet services customers can submit specific product queries and request

specific sales quotes. For example amazon.com is a www based bookshop on the internet where information on all types of international books can be found and books can be ordered online.

4. Stock market updates

Selling or buying shares sitting on computer through internet. Several websites like ndtvprofit.com, moneypore.com, provide information regarding investment

5. Travel:

One can use internet to gather information about various tourist place .It can be used for booking Holiday tours, hotels, train, bus, flights and cabs. Some of the web sites providing this service are goibibo.com, makemytrip.com, olacabs.com.

6. Research

Research papers are present online which helps in the researcher doing aliterature review

7. Video conferencing

It enables direct face-to-face communication across networks via web cameras, microphones, and other communication tools.

Video conferencing can enable individuals in distant locations to participate in meetings on short notice, with time and money savings.

8. e-commerce

e-commerce (electronic commerce or EC) is the buying and selling of goods and services, or the transmitting of funds or data, over an electronic network, primarily the Internet.

Largest e-commerce companies in India are Flipkart, Snapdeal, Amazon India, Paytm.

9. Online payments

The rising boom of online payments in India has given way to many new entrants in the industry such as Paytm etc who are majorly wallet driven payment companies.

This growth has been driven by rapid adoption led by the increasing use of smartphones, tablets and speedy access to internet through broadband, 4G etc

10. Social Networking

Social networking is the use of internet-based social media programs to make connections with friends, family, classmates, customers and clients.

Social networking can be done for social purposes, business purposes or both.

Examples of social networking includes Facebook

11. Voicemail

Voicemail is a system of sending messages over the phone. Calls are answered by a machine which connects you to the person you want to leave a message for, and they can listen to their messages later.

12. Chatting

On the Internet, chatting is talking to other people who are using the Internet at the same time you are.

Transcripts of a chat can be archived for later reference.





13. e-banking


e-banking (Online banking) , also known as internet banking, it is an electronic payment system that enables customers of a bank or other financial institution to conduct a range of financial transactions through the financial institution's website.

14. e-learning

e-Learning are courses that are specifically delivered via the internet to somewhere other than the classroom where the professor is teaching. It is not a course delivered via a DVD or CD-ROM, video tape or over a television channel

4. Write a note on any five Internet browsers other than that given in the book.an

	Opera is smaller and faster than most other browsers, yet it is full- featured. Fast, user-friendly, with keyboard interface, multiple windows, zoom functions, and more. Java and non Java-enabled versions available. Ideal for newcomers to the Internet, school children, handicap and as a front-end for CD-Rom and kiosks.
	Lynx is a fully-featured World Wide Web browser for users on Unix, VMS, and other platforms running cursor-addressable, character-cell terminals or emulators.
	Chromium is an open-source Web browser project started by Google, to provide the source code for the proprietary Google Chrome browser.[5] The two browsers share the majority of code and features, though there are some minor differences in features and logos, and they have different licensing.
	UC Browser is a web browser developed by the Chinese mobile Internet company UCWeb, which is in turn owned by the Alibaba Group. As of August 2018 it is the third most popular mobile browser in the world by market share,

	after Google Chrome and Safari.
	Netscape Navigator was a proprietary web browser, and the original browser of the Netscape line, from versions 1 to 4.08, and 9.x. It was the flagship product of the Netscape Communications Corp and was the dominant web browser in terms of usage share in the 1990s, but by 2002 its use had almost disappeared.

Familiar Internet Browser



Google Chrome is a freeware familiar web browser **developed by Google Inc.** It is best for its speed, simplicity, security, privacy and customization features. Google Chrome supports on Android 4.0 or higher, iOS 6.0 or higher, Mac OSX 10.6 or higher and Windows (XP sp2 or higher) and Linux system.



Mozilla Firefox is a free and open source web browser **developed by Mozilla Foundation and Mozilla Corporation.** FireFox is **default browser in Ubuntu** . It supports Windows, Mac OS X, Linux and Android system.



Internet Explorer commonly known as Microsoft Internet Explorer or Windows Internet Explorer is the first or default browser for a Windows PC. It is **developed by Microsoft.**



Safari is a web browser **developed by Apple Inc.** and comes with OS X and iOS. Some version of safari browser also supports in Windows Operating System. **Exclusively used in Apple Mac system.**

5. Classify and explain any five e-commerce parties with suitable examples.

Business to consumer (B2C) – Transactions happen between businesses and consumers. In B2C ecommerce, businesses are the ones selling products or services to end-users

Business to business (B2B) – As its name states, B2B ecommerce pertains to transactions conducted between two businesses.

Any company whose customers are other businesses operate on a B2B model.

Consumer to business (C2B) – Consumer to business ecommerce happens when a consumer sells or contributes monetary value to a business.

Many crowd sourcing campaigns fall under C2B ecommerce.

Consumer to consumer (C2C) – As you might have guessed, C2C ecommerce happens when something is bought and sold between two consumers. C2C commonly takes place on online marketplaces such as eBay, in which one individual sells a product or service to another.

5. Government to business (G2B) – G2C transactions take place when a company pays for government goods, services, or fees online.

6. Business to government (B2G) – When a government entity uses the Internet to purchases goods or services from a business, the transaction may fall under B2G ecommerce. Let's say a city or town hires a web design firm to update its website.

This type of deal may be considered a form of B2G.

7. Consumer to government (G2C) – Consumers can also engage in B2C ecommerce. People paying for traffic tickets or paying for their car registration renewals online may fall under this category.

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i.e. between national, state and local government entities and within different levels of the entity.

G2C (Government to Citizen): The interaction amidst the government and general public is G2C interaction. Here an interface is set up between government and citizens. The citizens has the freedom to share their views and grievances on government policies anytime, anywhere.

G2B (Government to Business): In this case, the e-governance helps the business class to interact with the government seamlessly. It aims at eliminating red-tapism, saving time, cost and establish transparency in the business environment, while interacting with government.

G2E (Government to Employees): The government of any country is the biggest employer and so it also deals with employees on a regular basis, as other employers do.

ICT helps in making the interaction between government and employees fast and efficient, along with raising their level of satisfaction by providing perquisites and add-on benefits.

Book Question

Define Host?

In Several networks are connected together and each computer on net is called as **host** in network.

Define WWW?

The World Wide Web (WWW) is a network of online content that is formatted in HTML and accessed via HTTP. The term refers to all the interlinked HTML pages that can be accessed over the Internet. The World Wide Web was originally designed in 1991 by Tim Berners-Lee while he was a contractor at CERN.

The World Wide Web is most often referred to simply as "the Web."

Define internet?

In Several networks, small and big all over the world, are connected together to form a Global network called the internet.

Application area of **internet**

Online movies and gaming

Instant messaging

Internet forums

Social networking

Online shopping

Financial services

Data transfer/file-sharing, often through File Transfer Protocol (FTP)

Web-enabled audio/video conferencing services

Email

Define Intranet?

It is a website used by organizations to provide a place where employees can access company related information.

Define Extranet?

It is a private network using internet technology to share part of business information with suppliers' partners and customers.

What is Email?

Electronic mail or email is information stored on a computer that is exchanged between two users over telecommunications. Email is a message that may contain text, files, images or any other attachments sent through a network to a specified individual or group of individuals

The **first mail** was sent by **Ray Tomlinson** in 1971 as a test e-mailmessage containing the text like "QWERTYUIOP"

What is URL?

A URL is an address that shows where a particular page can be found on the World Wide Web. URL is an abbreviation for '**Uniform Resource Locator (URL)**'.

What Domain Name?

It is a name or an identity which become a online identity and can be access by the web browser when connected to internet.

Generic Domain Name

Domain Name	Description
.com	Commercial Organisation
.gov	Government institution
.org	Non-profit Organisation
.net	Network Support Group
.edu	Educational Institution

Country Level Domain Name

Domain Name	Description
.in	India
.au	Australia
.us	United States of America
.jp	Japan
.ru	Russia
.sg	Singapore

What is the role of E-governance?

E-governance has a great role to play, that improves and supports all tasks performed by the government department and agencies, because it simplifies the task on the one hand and increases the quality of work on the other.

Explain the Structure of email OR How will you send a Mail

Click the **Compose** button and then writing an e-mail contents

When sending an e-mail message, several fields are required to be filled:

- The **To** field is where you type the e-mail address of the person who is the recipient of your message.
- The **From** field should contain your e-mail address.
- If you are **replying** to a message, the To and From fields are automatically filled out; if it's a new message, you'll need to enter them manually.
- The **Subject** should consist of a few words describing the e-mail's contents. The Subject lets the recipient see what the e-mail is about, without opening and reading the full e-mail. This field is optional.
- The **CC (Carbon Copy)** field allows you to specify recipients who are not direct addressees (listed in the "To" field). This field is optional.
- The **BCC (Blind Carbon Copy)** field is similar to **CC**, except the recipients are secret. Each **BCC** recipient will receive the e-mail, but will not see who else received a copy.
- Finally, the **Message Body** is the location you type your main message. It often contains your signature at the bottom; similar to a hand-written letter.

Safe Surfing on Internet

As a great reminder that Internet security is something that needs constant vigilance. It's also a great reminder that a lot of things can happen on the Internet if you don't properly take precautions against them. With that in mind, be sure to have a safe and happy Safer Internet Day.

SAFER INTERNET DAY

Safer Internet Day (SID) 2018 is celebrated around the world in **February** of every year with a theme of "Create, connect and share respect: A better internet starts with you".

Following is the do's and don't of safe Surfing on Internet

- Don't give out your personal information
- What goes online, stays
- Check your security and privacy settings
- Password safety
- Always protect your mobile device
- Don't talk to strangers online or offline
- Listen to the adults who know
- Be wary of unsecured or unknown websites
- Be careful what links you click on

www.nammakalvi.org

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