Q.1= (a). Discuss the importance of system software and how it helps?

Ans= System Software:

System software is a type of computer program that is designed to run a computer’s hardware and application programs.

Examples:

Operating system is the best known example of system software. OS includes Microsoft windows, Macintosh, LINUX, Game engines etc.

Importance of System software:

This is a set of one or more programs which controls the operations and extends the processing capability of a computer system. The system software is the interface between the device and end user. System software includes operating systems and the associated programs which enable systems and computers to work. It provides foundation for the infrastructure software that links and manages the hardware, network and software work together. The Operating system which is the main component of system software controls the basic function of computer or network. It’s a software program that enables hardware to communicate and operate with computer software. Microsoft is a leading player in this segment with 90% of personal computers using windows as their operating system.

System software is really helpful in our daily life tasks as well as professional works. By the help of system software we are not only able to perform our daily digital tasks but we can also get entertained by its many applications such as computer games, video players, music players. It is also helpful in making documents etc in Microsoft, hence many more useful applications which is very useful in every aspect.

(b). Write a few benefits of Public domain software?

Ans= Public Domain Software:

Public domain software is any software that has no legal, copyright or editing restrictions with it.

Benefits of Public domain software:

1. It is absolutely free to use.
2. It is open source software that can be publicly modified, distributed or sold without any restrictions.
3. Public domain software provides zero cost to information online.
4. It is available for free or for a nominal charge from websites, bulletin boards and public libraries and user group libraries on the internet.
5. No permission is required to use.
6. There are no licensing requirement with public domain software.
7. Public domain software is intentially or voluntarily uncopyrighted, unpatented or is unrestricted by its developer or author.
8. It is different from free software and freeware that does has copyrights and patents associated with it.
9. Basic objective is to popularize the software to as many users as possible.
10. Some public domain softwares are also for trial periods.

Q.2= (a). Explain different categories of Transmission speed?

Ans= Data Transmission Speed:

Speed of communication system is measured as bits per second.

 Speed is represented as bandwidth.

Categories of Transmission Speed:

Following are the categories of transmission speed.

1. Narrowband:

Narrowband describes telecommunication that carries voice information in a narrow band of frequencies.

Sub-voice grade channels in range from 45-300 band. Mainly used for Telegraph lines and low speed terminal.

1. Voiceband:

This refers to the transmission of information over relatively a narrow band of frequencies called the voice spectrum.

Voice grade channels with speed up to 9600 baud. Mainly used for ordinary telephone voice communication and slow Input Output devices.

1. Broadband:

Broadband is also called Wide band. Broadband covers the wider band of frequencies than voiceband.

High speed channels with speed up to 1 million baud or more. Mainly used for high speed computer communication or for simultaneous transmission of data.

(b). Differentiate between Optical and Magnetic storage?

Ans= Optical Disc/Storage:

1. An optical disk is a flat, usually circular disk that encodes binary data in the form of pits (1) and lands (0) on one of its flat surfaces.
2. It is made up of a special material often Aluminium.
3. Optical disk are usually between 7.6 and 30cm in diameter with 12cm being the most common size.
4. It uses laser beam for writing and reading.
5. Optical Disks are more durable than earlier audio-visual and data storage formats.
6. An optical disk is designed to support one of the three recording types; Read only (CD-ROM), Recordable (CD-R) or Rerecordable (CD-RW).

Magnetic Disc/Storage:

1. It a disk consists of thin circular plate of metal, its two surfaces are covered with magnetic material and information is recorded on the surfaces.

2. It is usually coated with liquid Iron oxide.

3. Data is recorded as magnetized and non-magnetized spots (representing 1 and 0).

4. Magnetic storage is a form of non-volatile storage which means data is not lost when the storage device is not powered.

5. Magnetic storage is read-write, which makes it possible to reuse the storage capacity over and over again by deleting stores data.

6. Magnetic storage is used widely because it is much cheaper than other storages.

Q.3= Based on the discussion related to Internet and its services, which service you think has been most useful in current situation? Explain that service and why have you choosen it?

Ans= Internet:

Internet is the global computer network and is the interconnected network by using a standardized communication portal. It is a heterogeneous worldwide network.

Services of Internet:

The internet provides many services to its users, one of the most important service which is also currently the most useful service these days is given below.

Electronic Mail:

Electronic mail service (Email) enables an internet user to send a mail (messages) to another internet user in any part of the world in a near-real-time manner. An email message takes a few seconds to several minutes to reach its destination.

Email service has many similarities with postal-mail service. All internet users have an email address, just as all of us have a postal address. Each internet user has a logical mailbox, just as each one of us has a mail box in our house. When sending a mail to another user, a sender specifies the email address of the receiver, just as we write postal address of the receiver of a post in postal mail system. Email service delivers an already sent mail into its receiver’s mailbox. The receiver extracts the mail from his/her mailbox and reads it at his/her own convenient time, just as in postal mail system. After reading the message, the receiver can save it, delete it, forward it to someone else or respond to it by sending another message back.

Messages in email can contain not only text documents but also image, audio and video data. Only restriction is that the data must be in computer readable format.

Email is a free tool, once you are online, there is no further expense that you need to spend on in order to send and receive messages. Email is excessible from anywhere, as long as you have an internet connection. If you are someone who is always on the go, email can cut down the extra stress in your life. Like if you are someone who does not get time to make a call then you can simply send a quick mail to get in touch with that person. Atleast 85% of the inhabitants of cyberspace send and receive email. Some 20 million email messages cross the internet every week.

Email is a virtual communication system that has transformed the way companies conduct business. Email expedites the exchange in information, remove global barriers, keeps communication costs low and allows business people business people the flexibility to access their messages from anywhere in the world. As such, companies benefit from the many advantages that email offers

Me as a student has been getting many advantages from email service. I interact with my teachers and friends through emails. They exchange study materials and lectures with me through emails. Hence email is been proven the most useful service these days.