

Course: Computer application to business
Semester: 4th
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Major Assignment
ID# 13651

Q1. (a) Discuss the importance of system software and how it helps users? (5)

Systems software are programs that manage the resources of the computer system and simplify applications programming. They include software such as the operating system, database management systems, networking software, translators, and software utilities.

System Software can be designed as the software in such a way so that it can control and work with computer hardware. It acts as an interface between the device and the end user.

Examples of system software include operating systems like mac OS, GNU/Linux and Microsoft Windows, computational science software, game engines, industrial automation, and software as a service applications.

System software handles technical details, works with end users, application software, and computer hardware.

System software coordinates the activities and functions of hardware and software, and it controls the operations of computer hardware.

It allows users to do user-oriented tasks such as create text documents, play games, listen to music, or browse the web are collectively referred to as application software.

(b) Write a few advantages of open source software's? (5)

Open source software is computer software that has a source code available to the general public for use as is or with modifications. This software typically does not require a license fee. There are open source software applications for a variety of different uses such as office automation, web design, content management, operating systems, and communications. Open source software in simple terms is free software that you can use in your business.

1. Cheaper than commercially marketed products.
2. Created by skilful and talented people.
3. Highly reliable.
4. Help you become more flexible.

Lower Costs:

Open source software usually does not require a licensing fee and its lower cost is generally one of the key reasons why small businesses choose to adopt this software.

Flexibility:

A programmer can take a standard software package and modify it to better suit business needs. You can usually hire a programmer to add a particular function to open source software.

Reliability and Quality:

When looking at improved quality, you have to compare the products themselves. It is impossible to say that open source software is better than proprietary software in terms of reliability and quality – both have a range of products. However, mature open source software is generally viewed to be of good quality and reliability.

Reduces “Vendor Lock-in”:

If you are using proprietary software you may be restricted to using certain vendors. Switching vendors in this case usually involves significant costs. Keep in mind though that choosing an OSS product may not make you totally independent of vendors.

Availability of External Support:

External technical support is available for many of the open source software packages. Some vendors offer support contracts and there are service providers that install, configure and maintain an OSS system. Many open source products also have active online community support that may be able to answer your questions through online blogs.

Q2. (a) Differentiate between Optical and magnetic storage? (5)

Optical Storage Devices:

Optical storage is the storage of data on an optically readable medium. Data is recorded by making marks in a pattern that can be read back with the aid of light, often a beam of light focused on a spinning optical disk

An optical disk has ability to store more data than the previous generation of magnetic storage media and has a relatively longer lifespan. Popularly used forms of optical disk include: Compact disks (CD), Blu-ray disks and digital versatile/video disks (DVD) etc.

Magnetic Storage Devices:

A magnetic disk is a storage device that uses a magnetization process to read, write, rewrite and access data. It is covered with a magnetic coating and stores data in the form of tracks, spots and sectors. Common examples of magnetic disks include: Hard disks, zip disks and floppy disks.

A magnetic disk is usually made of a rotating magnetic surface and a mechanical arm that moves over it. The main function of the mechanical arm is to read from and write the disk. Data is primarily stored in the form of tracks and sectors whereby tracks are the circular divisions of the disk.

	Optical Storage Devices	Magnetic Storage Devices
1	Stores data as patterned image	Stores data in magnetic form
2	Optical storage devices offer lesser capacity	Magnetic storage devices offer much higher capacity
3	Requires LASER light to read and write data onto the disc	Doesn't require LASER heads to read and write data
4	Slower data read and write	Faster data read and write
5	Data on the disk will not be damaged by magnetic fields	Magnetic field can destroy the data stored on Magnetic storage devices
6	Optical storages can be readable, writable and re-writable	Magnetic storage devices are always readable and re-writable
7	Optical storage devices require additional drives to function	Almost all magnetic storage devices comes with built-in drives
8	Easy and safe to take around	Not as safe as optical storage devices to take around

(b) Discuss the importance of main memory? (5)

The main memory in a computer is called Random Access Memory. It is also known as RAM. This is the part of the computer that stores operating system software, software applications and other information for the central processing unit (CPU) to have fast and direct access when needed to perform tasks.

It allows us to store and run programs on the computer. It is one of the fastest memories in our computer system. If we are using internet browser on our computer, the pages we will see on the screen and pages that have been loaded into memory are run on RAM.

RAM directly affects the computer speed, the more RAM you will install in the system the faster it will run. Adding more RAM increases the size of that work space. More RAM will allow to do more tasks and complex tasks easily with the speed.

Q3. Based on the discussion related to internet and its services, elaborate the effective use of internet in current health emergency and how different sectors of life are benefiting from it? (10)

The Internet is a global wide area network that connects computer systems across the world. In health sector emergency, specifically with its reach out in urban mostly and in rural areas, to a less extent but through phone apps with internet connectivity, it can do wonders. With digitalization era evolving and IOT, internet based things from health advise to smart houses, it can have a far reaching effect on our foreseeable future concerns. Any discernable mind can now predict the effects of internet and its growing profound influence on our generation, with adaptation of technology this connectivity can have tremendous potential for concerted growth, in fields of health E health tech, education E learning so on and so forth. There shall not be a single soul even other lives, on globe that shall not enjoy the benefits, but it's for us humans to decide to yet again learn to draw a line, where it does not affect the Mother Nature.

Now we use internet access latest information on health care and measures to be taken. Also internet is used to connect with our family and friends who are observing social distancing. Internet is also used for distance learning as many educational institutes are closed down. Scientists can contact each other from any part of world especially during emergency situation. The real time data is shared through internet and to educate public on the current condition.

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.

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

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. Shopping sites are more interesting because of the huge discounts different companies are offering customers.