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**SCHOOL OF THEOLOGY
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UNIT CODE/UNIT NAME: GEN 112/062 COMPUTING
JAN/APRIL 2020/2021 TRIMESTER OPEN BOOK EXAM TOTAL MARKS – 60
LECTUER: DENNIS. M.**

INSTRUCTIONS:

Answer Question One (Compulsory) and any other two in Section B

Marking Scheme

SECTION A

QUESTION ONE

- a) As a student, you are required to type set your assignments. Discuss two *page orientations* that one can apply to a document (4mks)

Page Orientation refers to the direction in which a document is displayed. Word offers two page orientation options: **landscape and portrait**. Landscape means the page is oriented horizontally. Portrait means the page is oriented vertically.

- b) A computer system has *input unit* and *output unit*. Differentiate the use of the two units quoting relevant devices in each of the units. (6mks)

An input device is device you connect to a computer that sends information into the computer. An output device is device you connect to a computer that has information sent to it.

INPUT DEVICE

The design of input devices are more complex.

OUTPUT DEVICE

The design of output devices are less complex.

Ex: Keyboard, Image Scanner, Microphone,
Pointing device, Graphics tablet, Joystick.

Ex: Monitor, Printers,
Plotters, Projector, and
Speakers.

- c) A computer system is perceived as a complete system of interacting components. Discuss the *three* components that make up the computer phenomenon quoting examples. (9mks)

There are three major components of a computer system:

- Hardware
- Software
- human ware

While *hardware* and *software* components co-exist to make up the actual computer, the *human ware* component adds in the human face to bring the complete computer into a functional and productive existence. When installed separately, each may be useful to an extent but incapable of achieving complete computing potential. Hardware and software need the human factor in order to make input and connectivity possible.

1. Computer Hardware

These are computer system components that can be touched by the human hand. Examples include:

- Display monitor
- Keyboard
- Mouse
- Motherboard
- Memory modules
- Disk drive

These parts are housed within the laptop or the desktop system-unit. For the desktop, however, the keyboard and mouse are attached and used externally.

2. Computer Software

The software component refers to the instructions, programs, data, and protocols which run on top of hardware. It is also retained temporarily and persistently in primary and secondary hardware media. The random access memory chip is an example of primary hardware while the hard disk drive is an example of secondary hardware.

3. Human ware

The human ware component refers to the person that uses the computer. More specifically, it is about the individual that makes hardware and software components productive.

Typically, a great deal of testing is done on software packages and hardware parts to ensure they enhance the end-user experience to aid in creating documents, musical and video recordings, and all forms of raw and finished data

d) Differentiate between *borders* and *margins* as used in document formatting. **(4mks)**

A border is a decorative frame that surrounds a page or elements on a page. The border can be a simple rule line or an elaborate set of lines and curves. A border can be composed of repeating graphic elements. Borders can be used to set apart, draw attention or unify disparate elements while a Margin is the blank space that surrounds the text on a page.

e) Describe the importance of the random access Memory(RAM) **(4mks)**

- Computer random access memory (RAM) is one of the most important components in determining your system's performance.
- RAM gives applications a place to store and access data on a short-term basis.
- It stores the information your computer is actively using so that it can be accessed quickly
- RAM is a form of temporary computer storage that allows stored data to be received and read almost instantaneously

- f) Define the term *Internet* (1mks)

The Internet is a vast network that connects computers all over the world. Through the Internet, people can share information and communicate from anywhere with an Internet connection.

- g) Outline the purpose of internet and other networks (2mks)

The core purpose of internet and other networks is to share and access scarce resources such as time and money convenient irrespective of distance and location

SECTION B

QUESTION TWO

- a) Discuss *four* paragraph formatting features applicable to any word document. (4mks)

- Alignment. Alignment or justification refers to the way in which the lines of a paragraph are aligned.
- Line Spacing.
- Indents.
- Paragraph Spacing.
- Borders.
- Shading (Colored Background) ...
- Alignment.
- Indentation.

- b) Martin, one of the graduates has been invited to an online meeting. Due to the corona pandemic, physical meetings are not allowed. As a computing student, outline *four* ways in which Martin can utilize the internet to communicate online. (4mks)

- Video Conferencing. The second way to communicate online vividly and intuitively is via video conferencing.
- Email. Email is one of the digital ways of sending letters.
- Social Networks.
- Audio Conferencing.
- VoIP.
- Chat Room.

c) Discuss the components of an e-mail application

(7mks)

Parts of an email message

- Subject. Subject is a description of the topic of the message and displays in most email systems that list email messages individually.
- Sender (From). This is the sender's Internet email address.
- Date and time received (On).
- Reply-to.
- Recipient (To:).
- Recipient email address.
- Attachments.

QUESTION THREE

a) Define the following term as used in computing

(5mks)

- i. Primary storage - Primary storage (also known as main memory) is the component of the computer that holds data, programs and instructions that are currently in use.
- ii. Word wrap - a word processing feature that automatically transfers a word for which there is insufficient space from the end of one line of text to the beginning of the next.
- iii. A computer Drive - A drive is a location (medium) that is capable of storing and reading information that is not easily removed, like a disk or disc. All drives store files and programs used by your computer
- iv. Document - A document is a form of information. A document can be put into an electronic form and stored in a computer as one or more files.
- v. Word processor - A word processor, or word processing program, does exactly what the name implies. It processes words. It also processes paragraphs, pages, and entire papers. Some examples of word processing programs include **Microsoft Word, WordPerfect (Windows only)**, AppleWorks (Mac only), and OpenOffice.org.

b) With a relevant example, Outline the importance of the mail merging feature in word processing (4mks)

Mail merge is a word processing procedure which enables you to combine a document with a data file, for example a list of names and addresses, so that copies of the document are different for

each person it is sent to. E.g. The university sent every member of staff a mail merge letter wishing them a merry Christmas.

The advantages of Mail Merge are as follows:

- The Mail Merge feature makes it easy to send the same letter to a large number of people.
- By using Mail Merge, one doesn't have to type each recipient's name separately in each letter.
- One needs to proofread only the main document.
- It is economical and saves a lot of time.

c) Email has revolutionized the way people interact. Define the term *e-mail* and cite *two*

advantages of using email over the post mail commonly known as "*snail mail*". (4mks)

Electronic mail (e-mail) is a computer-based application for the exchange of messages between users. A worldwide e-mail network allows people to exchange e-mail messages very quickly. E-mail is the electronic equivalent of a letter, but with advantages in timeliness and flexibility.

- Email is a free tool.
- Email is quick, timeliness and flexible.
- Email is simple.
- Email allows for easy referencing.
- Email is accessible from anywhere – as long as you have an internet connection. ...
- Email is paperless, and therefore, beneficial for the planet.

d) Outline the two milestones of computer evolution (2mks)

- Computers have grown smaller in size yet growing powerful in terms of processing speed.
- Computers have increased storage space over time.
- Computer have become multiuser and multitasking.

QUESTION FOUR

a) Discuss *three* advantages and *two* disadvantages of using internet today (5mks)

Advantages

1. Information on almost every subject imaginable.
2. Powerful search engines.
3. Ability to do research from your home versus research libraries.
4. Information at various levels of study. Everything from scholarly articles to ones directed at children.

5. Message boards where people can discuss ideas on any topic. Ability to get wide range of opinions.
6. People can find others that have a similar interest in whatever they are interested in.
7. The internet provides the ability of emails. Free mail service to anyone in the country.

Disadvantages

- 1) There is a lot of wrong information on the internet. Anyone can post anything, and much of it is garbage.
 - 2) There are predators that hang out on the internet waiting to get unsuspecting people in dangerous situations.
 - 3) Some people are getting addicted to the internet and thus causing problems with their interactions of friends and loved ones.
 - 4) Pornography that can get in the hands of young children too easily.
 - 5) Easy to waste a lot of time on the internet. You can start surfing, and then realize far more time has passed than you realized. Internet and television together of added to the more sedentary lifestyles of people which further exacerbates the obesity problem.
 - 6) Internet has a lot of “cheater” sites. People can buy essays and pass them off as their own far more easily than they used to be able to do.
- b) Computers have drastically changed our daily lives. Explain *five applications* of computers today.

Computers play a role in every field of life. They are used in homes, business, educational institutions, research organizations, medical field, government offices, entertainment, etc.

Home

Computers are used at homes for several purposes like online bill payment, watching movies or shows at home, home tutoring, social media access, playing games, internet access, etc. They provide communication through electronic mail. They help to avail work from home facility for corporate employees. Computers help the student community to avail online educational support.

Medical Field

Computers are used in hospitals to maintain a database of patients' history, diagnosis, X-rays, live monitoring of patients, etc.

Entertainment

Computers help to watch movies online, play games online; act as a virtual entertainer in playing games, listening to music, etc

Industry

Computers are used to perform several tasks in industries like managing inventory, designing purpose, creating virtual sample products, interior designing, video conferencing, etc. Online marketing has seen a great revolution in its ability to sell various products to inaccessible corners like interior or rural areas. Stock markets have seen phenomenal participation from different levels of people through the use of computers.

Education

Computers are used in education sector through online classes, online examinations, referring e-books, online tutoring, etc. They help in increased use of audio-visual aids in the education field.

Government

In government sectors, computers are used in data processing, maintaining a database of citizens and supporting a paperless environment. The country's defense organizations have greatly benefitted from computers in their use for missile development, satellites, rocket launches, etc.

Banking

In the banking sector, computers are used to store details of customers and conduct transactions, such as withdrawal and deposit of money through ATMs. Banks have reduced manual errors and expenses to a great extent through extensive use of computers.

Business

Nowadays, computers are totally integrated into business. The main objective of business is transaction processing, which involves transactions with suppliers, employees or customers. Computers can make these transactions easy and accurate.

People can analyze investments, sales, expenses, markets and other aspects of business using computers.

Training

Many organizations use computer-based training to train their employees, to save money and improve performance. Video conferencing through computers allows saving of time and travelling costs by being able to connect people in various locations.

Arts

Computers are extensively used in dance, photography, arts and culture. The fluid movement of dance can be shown live via animation. Photos can be digitized using computers.

Science and Engineering

Computers with high performance are used to stimulate dynamic process in Science and Engineering. Supercomputers have numerous applications in area of Research and Development (R&D). Topographic images can be created through computers. Scientists use computers to plot and analyze data to have a better understanding of earthquakes.

(5mks)

- c) Outline the importance of computer networking in modern day computer usage. **(5mks)**
- i. Cost-effective resource sharing
 - ii. Computer networking can help your business grow
 - iii. Improving storage efficiency and volume
 - iv. Access flexibility
 - v. Utilize a Centralized Database
 - vi. Cut costs on software
 - vii. Computer networking enables employees to share ideas more easily and work more efficiently.
 - viii. It increases their productivity and generates more income for the company.

- ix. More importantly, computer networking improves the way companies offer their services to the world.

QUESTION FIVE

- a) Define the term *file* (2mks)

A file is an object on a computer that stores data, information, settings, or commands used with a computer program.

- b) Elaborate on the various *types* of file sharing in the digital world today. (6mks)

- File transfer protocol programs (FTP): The most common file transfer system on the internet to date is known as the File Transfer Protocol or FTP.
- Peer-to-peer networks.
- Removable storage media
- Online file sharing services.

- c) Discuss the *two advantages* and one *risk* of file sharing (3mks)

- Saves Time.
- Eliminates Multiple File Versions.
- Saves Money.
- Prevents Lost Data.
- File Permissions Limits Access.
- Potential Proprietary Data/Plagiarism Issues.
- Requires Sufficient Network/Bandwidth Speeds.
- Higher Risk of Files Being Shared Publicly.

Risks of File sharing

- File sharing can be illegal.
- Copyright infringements can be quite costly.
- Sentences for copyright infringements often also include jail.
- May harm many artists.
- Many file sharing platforms have been closed down.
- Files may contain malware.
- Privacy concerns regarding file sharing platforms.

d) Explain the importance of an operating system in a computer **(4mks)**

- An operating system is the most important software that runs on a computer.
- It manages the computer's memory and processes, as well as all of its software and hardware.
- It also allows you to communicate with the computer without knowing how to speak the computer's language.
- Manage the computer's resources, such as the central processing unit, memory, disk drives, and printers,
- Establishes a user interface.
- Execute and provide services for applications software.