**MARKING SCHEME**

**FORM TWO**

**FEBRUARY 2019**

**SECTION A**

1. ***Name three major components of a computer system. (3 marks)***
* Computer Hardware
* Computer Software
* Computer Liveware
1. ***Explain three factors which may prevent computer users from using speech input devices.
 (3 marks)***
* Incase the user is dumb
* Improper pronunciation of words
* Some languages cannot be understood during speech input
* Proper speech input devices may not be available
1. ***List down any four advantages of using computers as tools of problem solving. (2 marks)***
* Computers are accurate
* Computers are fast in processing information
* Computers can store a lot of data and information
* Computers do not get tired or bored even when required to repeat a task over and over again.
1. ***Since the invention of the first generation of digital computers, much advancement has been realized in the sector of information and technology. Explain two characteristics which have been improved from the first generation to the modern computers. (4 marks)***
* **Size:** Computers are becoming smaller and smaller since they involve Very Large Scale Integration of electronic components leading to the introduction of very small computers like palmtops, notebooks and laptops.
* **Speed:** Computers are becoming faster in processing of data due invention of very high speed processors.
* **Storage Capacity:** This has been increased. Initial devices could only store several kilobytes and they took long to store and retrieve data.
* Energy consumption and heat emission: The modern computers consume little energy and emit little heat.
1. ***Differentiate between absolute and relative cell references. (2 Marks)***
* Absolute cell references do not change when a formula containing the absolute references is copied from one cell to another. E.g. $A$1
* Relative cell references change automatically when a formula containing the relative references is copied from one cell to another e.g. A1
1. ***Give two ways of classifying operating systems. (2 Marks)***
* By their Interface
* By the number of tasks they can handle at the same time
* By the number of users
1. ***Describe the two common types of spreadsheets. (2 Marks)***
* Manual spreadsheets
* Computerized spreadsheets
1. ***a) What is a computer virus? (1 Mark)***
* A malicious program designed to cause malfunctioning in a computer system

 ***b) Give two names of common computer viruses. (2 Marks)***

* Worms
* Boot sector viruses
* Trojans
* Back doors
* File viruses

 ***c) State two security measures which should be observed to safeguard data against*** computer viruses. (2 Marks)

* Scanning all removable storage devices before using them using antivirus programs
* Scanning all internet downloads using antivirus programs
* Not accepting foreign removable storage media in an organization
1. ***Name two special purpose memories found either found inside or outside the microprocessor hence explain what each of them does.. (2 marks)***
* Cache Memory: Cache Memory is a special group of fast memory chips located inside or close to the CPU chip to speed up processing.
* Buffers: Temporary holding places built in some input and output devices so as to relieve the CPU some burden of storing all the data during processing.
* Registers: Temporary holding locations within the CPU that are used to store instructions and pieces of data being processed by the CPU
1. ***Describe three facilities or ways of ensuring proper ventilation in a computer laboratory. (3 Marks)***
* Large & enough windows and doors
* Installing fans
* Installing air conditioning system
* Avoid overcrowding of either machines or people in the room
1. ***Computers can store data using three ways namely electronically, magnetically and optically. Give two examples of storage devices in each method: (3 marks)***

(i) electronically

* Flash drives - memory cards - memory sticks

 (ii) magnetically

* Floppy diskette, hard disk, magnetic tapes, magnetic stripe cards

 (iii) optically

* Digital Versatile Disks, Compact Disks, Optical tapes
1. ***(a) Define the term firmware. (1 mark)***
* Refers to a class of system software programs that are permanently stored (burnt into) in Read Only Memories (ROMs) of various devices.

 (b) Describe any **two** examples of utility programs. (2 marks)

* Diagnostic Programs: which deal primarily with diagnosing and repairing disk-related problems, such as recovering damaged or erased files, repairing damaged directories, and recovering from a disk crash.
* Backup Utilities: Programs designed to back up the contents of a hard drive, commonly into a removable storage device.
* Uninstall Utilities: Used to remove programs that are no longer needed from the hard drive.
* Disk Defragmentation Programs: Also called disk optimisers –rearrange data and programs on the hard drive so that they can be accessed faster.
* File Compression Programs: Which enable files to be stored in a smaller amount of storage space.
* Antivirus Programs: Protect your system from virus attack.
* Performance Monitors: Tell you how efficiently your computer system is performing its work.
1. ***List down two uses of UPSs in a computer laboratory. (2 marks)***
* Regulating voltage entering into computing devices
* Storing energy for use by devices in case of power failure
* Notify the user in case of power failure.
1. ***Describe the two methods of computer booting. (2 marks)***
* Hard Booting/Cold Booting: This is the process of starting of the computer which was initially off.
* Soft Booting/Warm Booting: This is the process of restarting a computer which was initially on.

15. a) Explain the use of any two buttons found in a Spell-check dialog box. (2 marks)

1. **Change -** accepts the current selection in the *Suggestions* box.

When the selected error is a repeated word, this button changes to **Delete** so you can easily remove the second instance of the word.

1. **Change All –** corrects all the occurrences of the misspelled word.
2. **Ignore Once** - Leaves the highlighted error unchanged (if the highlighted word is a valid word) & finds the next spelling or grammar error.
3. **Ignore All** – retains all the occurrences of the same word or phrase in the document from another language, e.g., a *Kiswahili*.
4. **Add** - Adds the highlighted word in the Suggestions box to the *Custom dictionary*.
5. **Explain** - gives a detailed explanation of a grammar flag.
6. **Ignore Rule** –Leaves all instances of the highlighted error unchanged throughout the document and continues to check the document.

 b) Suggest the importance of the following features in the document preparation. (4 marks)

**i)Thesaurus.. Thesaurus** is an editing tool that provides the user with a list of *synonyms* (words that have similar meaning) & sometimes *antonyms* (words that have opposite meaning) to the selected word.

 ii) **Spellcheckers**. The *Spelling and grammar checker* is an inbuilt tool that helps the user to correct spelling errors and incorrect grammar structures

C)

* Dropcap
* Bolding
* Italicizing
* Colums
* Subscript
* superscript

***16. (a) Describe five features available in most word processing applications. (5 marks)***

* Statistical Analysis: This refers to using automated data analysis tools or functions when developing complex statistical or engineering analysis.
* Accounting: This refers to using financial analysis tools provided in spreadsheet applications to manage business transactions and financial records.
* Data management: This refers to using various data management tools to manipulate data entered in a spreadsheet e.g. by sorting, filtering, subtotalling, grouping etc.
* Forecasting/Performing “What if” analysis: This is where one is able to predict outcome of an event by altering various values entered in a worksheet through the use of automatic recalculation feature provided in a spreadsheet application.
* Scientific applications: - spreadsheets can be used by scientists & researchers to compile and analyze their results.

 ***(b) Explain the following terms as used in word processing: (3 marks)***

 (i) word wrap

* This is the automatic movement of the cursor/typing bar to the beginning of the next line when the boundary on the right side is reached/if the text cannot fit on the current line.

 (ii) insert mode

* A mode which allows the user to insert missing text in a document while the other text after the cursor is pushed away so as to create space.

 (iii) typeover mode

* A mode which allows the user to replace existing characters with the newly typed characters.

 ***(c) What is a document password? (2 marks)***

* This is a combination of characters which form a code to prevent other users from opening one’s document.

 ***(d) Outline five formats that can be applied to a paragraph in a word processing document. (5mks)***

* Text alignment: This refers to text positioning within a text area/text margins. It includes, Left alignment, Right alignment, Centre alignment and Justified text.
* Indentation: This refers to moving text away from text margins. It includes: First line indent, hanging indent, full indent and right indent.
* Setting tabs or tab stops: These are marks which one can set on the document when organizing text in columnar format. Tab stops include: Left tab, Centre tab, Decimal tab, Right tab, and bar tab.
* Drop Cap: This refers to a large initial character of a paragraph which appears lowered a number of lines in the paragraph. Drop caps include: Dropped and In Margin drop caps.
* Line spacing: This refers to the spaces left between the lines of a paragraph e.g. Double, Single, Multiple etc.
* Space before and after a paragraph: Space before paragraph refers to an empty space which can be set above a paragraph. Space after paragraph refers to an empty space which can be set below a paragraph.
* Bullets and numbering: Bullets refer to symbols which one can apply to enumerate paragraphs in form of points using symbols at the beginning of each point (e.g. ●, ♦, ♥, ♣). Numbering refer to numbers used to enumerate paragraph inform of points. Numbers can be Numeric, Roman numbers and Alphabetical letters