

SCHOOL: FAMVAR INTERNATIONAL

CLASS: JSS1

SUBJECT: COMPUTER STUDIES

SCHEME OF WORK FOR SECOND TERM

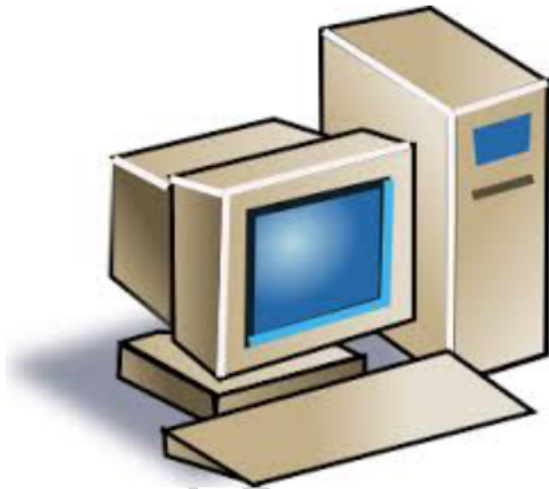
1. Revision
2. Description of a Computer and the Monitor
3. The System Unit: Internal and External Features and Uses.
4. The Keyboard and its Sections.
5. Computer Ethics: Definition and Ethics of the Computer Room
6. Word Processing
- 7/8. Data Processing
9. Stages of Data Processing
10. Features of a Computer
- 11/12. Revision and Examination

WEEK 1

DESCRIPTION OF A COMPUTER AND THE MONITOR

DESCRIPTION OF A COMPUTER

A computer is a combination of electronic and electro-mechanical devices (Hardware) that is capable of accepting data or information, processing it, storing it or providing output under the control of sets of instructions called programs (Software). Generally, a computer is a machine that is able to produce letters (Word Processor), analyze data (Spreadsheet), store data (Database Application), and create drawings (Graphics) etc. Computer is applicable in all fields of study in this present age of civilization. A computer is made up of three main parts; the monitor, system unit and the keyboard.



The following pictorial representation below shows how the computer is functionally organized to perform all the stages involved in Data Processing (input process output) as described below.

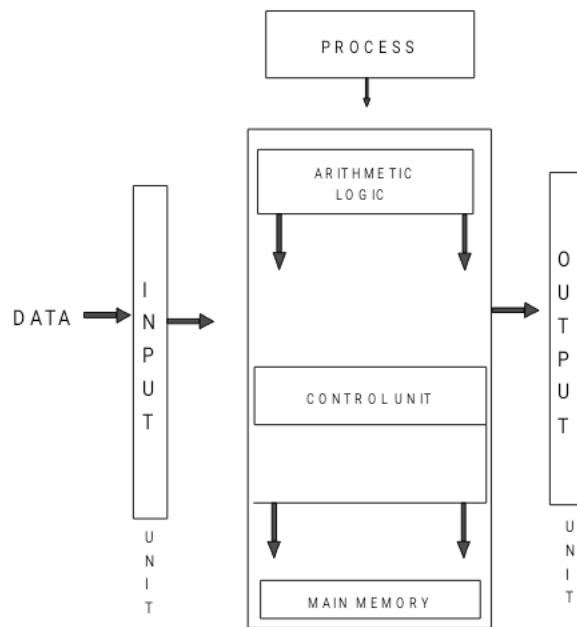


Figure showing the Input, Process, Output Function of a Computer

PARTS OF COMPUTER SYSTEM

Input Devices

These are the devices with which one can send data and information into the system. They are parts of the computer system used to key in data. The most common input devices are:

- Scanner
- Mouse and pad
- Multimedia microphone
- Light pen
- Web camera
- Touch screen
- Sensors and joystick
- Keyboard

Processing Device

This is also called the processor. It is the brain of the computer system; the part that works on data supplied. The function of the processing device is to jointly perform the processing of inputs received from the input devices. The processor and all other parts form what is called the Central Processing Unit. The CPU is housed by a casing or a box that may be horizontal (desktop) or vertical (tower top).

The major processing device in the computer is the processor: and it is mounted on the mother board. A processor is the logic circuitry that responds to and the basic instructions that drive a computer.

Output Devices

The output devices display or provide us with the result of the processed inputs either on the monitor or visual display unit (VDU) or through other output devices. Some of these output devices are:

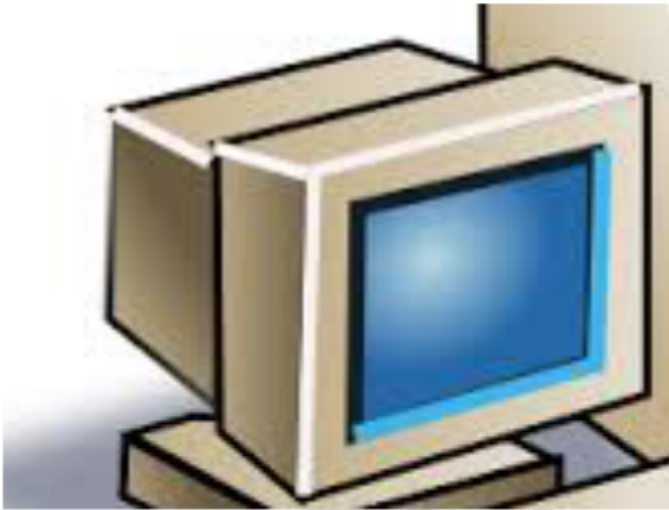
- Monitor
- Printers
- Projector
- Plotters
- Multimedia speakers, etc.

MONITOR

The most frequently used output device is the monitor also known as Visual Display Unit (VDU). The monitor is an electrical equipment which is used for displaying output (softcopy) generated by the computer. Images are formed on the monitor by individual dots or picture elements called PIXELS. It is capable of producing clear images in different colours.

Types of Monitors

1. Cathode-Ray Tube monitor (CRT): this is the most common type of monitor for office and home use. This is similar in size and technology to televisions. Their primary advantages are low cost and excellent resolution.



2. Liquid Crystal Display monitor (LCD): this is also known as flat panel monitor. This was developed because of the bulky nature of the CRTs. Unlike the technology used in CRT, the technology for portable monitors involves crystals. They are much thinner than the CRTs and generate less heat.



Assignment

1. Name the three parts of the CPU.
2. Give three differences between a CRT monitor and an LCD monitor.

WEEK 3

THE SYSTEM UNIT

A system unit is the main body of a personal computer which contains the main components of a computer. It may also be called the computer case or basic unit. The system unit contains the sensitive electronic parts from the outside elements. The system unit may be covered with plastic, steel or aluminium.

Internal Features and Uses

1. Motherboard: the motherboard is the heart of the computer. It connects all the other components of a computer which enables the computer to run.
2. Processor: the processor also called the central processing unit or CPU is responsible for processing data. It carries out basic computer tasks.
3. Fan: the fan is placed on top of the CPU to ensure that the computer stays cool at all times.
4. Internal Memory ROM (Read Only Memory): the ROM is a storage device that stores data permanently.
5. Internal Memory RAM (Random Access Memory): the RAM is a storage device that stores data temporarily ie. when the data is currently in use. When the computer is switched off, the RAM goes on a standby mode.
6. Network Card: the network card assigns a computer with a network which enables various computers to communicate with each other.
7. Hard drive: the hard drive is connected to the motherboard by an electrical wire. It stores softwares and other and other data in the computer permanently.

External Features and Users

1. Ports: A port is an interface or point of attachment to the system unit which allows cables or disks to be plugged into a system. The port may be a serial, parallel or a USB port.
2. Diskette Drive: the diskette drive is located at the front of the system unit and it allows users to write (store) and read (retrieve information to floppy disk drives).
3. Power Button: the power button is round or squared button on the system unit that powers a computer on or off when pressed.
4. Power Light: this is the light shown on the power button to indicate if the computer has been turned on or off.
5. Speaker Jack: the speaker jack is a whole into which a speaker cable can be plugged in to amplify sound.
6. Diagnostic Light: this is a light that may be accompanied by beeps to indicate at any point if a computer

is having issues.

7. Power Outlet: this is the point through which electric current is transmitted to a computer to power it.

Assignment

Mention and explain three internal and two external features of a system unit apart from the ones in your note.

WEEK 4

THE KEYBOARD AND ITS SECTIONS

KEYBOARD

The keyboard is an input device as well as a control device i.e. it is used to give commands to the computer. It is used mainly to enter alphabetic, numeric, alphanumeric and or symbolic data into a computer.

Types of Keyboards

There are two types of keyboard designs namely:

1. Standard Keyboard: the standard keyboard is an old type of keyboard. It is smaller in size. It has only function keys F1-F10 and does not have some special keys.
2. Enhanced Keyboard: this is a modern design. It is wider and lighter than the standard keyboard. It has special features and 12 function keys (F1-F12).

Keyboard Sections:

The keyboard is divided into the following sections:

1. Function Keys: these keys are used for various purposes depending on the design of the keyboard. They are labeled F1, F2, F3, F4, F5, F6, F7, F8, F9, F10, F11 and F12.
2. Numerical Keys: these keys are located on the right hand side of the keyboard. It contains number 0-9. The numeric keypad is active when Num lock key is ON.
3. Alphabetic Keys: these are keys with letters A-Z. They are 26 in number.
4. Arrow Keys: these are navigational or directional keys. They are used to move the cursor either up or down, left or right on the screen.
5. Special Keys: these are other special keys on the keyboard which are listed below with their functions:
 - a) ENTER: this key is used to execute a command.
 - b) HOME: this key is mostly used to move the cursor position to the beginning of the work area.
 - c) END: this key is used mostly to move the cursor position to the end of the work area.
 - d) PGUP and PGDN: these means page up and page down respectively. They are used to scroll the document up and down respectively.
 - e) DEL: this deletes the character at the current cursor position.
 - f) INS: this toggles (switches) between two modes of entering data i.e. insert and replace (overwrite).

- g) BACKSPACE: it moves the cursor one position backward (towards the left) deleting one character in the process.
- h) ESC: this is called the escape key. It might have many functions depending on the package, but generally, it is used to cancel or negate the last command given to the computer.
- i) SPACE: space-bar is used to key-in a space at the cursor position.
- j) CTRL, ALT, SHIFT: these keys are used in conjunction with other keys to enhance the functionality of the keyboard. In addition, the shift key is used with other keyboard keys to type characters that are written on top of the alphabetic keys.

ASSIGNMENT

Draw a well labeled keyboard showing its five sections.

WEEK 5

COMPUTER ETHICS

Computer ethics are sets of moral principles that regulates the use of computers. When computer ethics are followed or observed, the use of computer becomes more effective and beneficial.

Computer Room Ethics

In the computer room, certain things must be done or avoided. They include:

1. Students should not enter the computer laboratory unless instructed by the teacher.
2. Do not move any equipment from its original position.
3. Do not bring in food or drink into the computer laboratory.
4. Turn off the computer accordingly after use.
5. The computer room must be kept clean and tidy at all times.
6. Scan flash drives before use.
7. Do not attempt to repair any device.
8. Do not change any setting in the computer.
9. Cover the computer after use.
10. Report any problem related to the computer to the teacher.

Computer Room Requirement

1. Computer system.
2. Furniture
3. Printer
4. Speaker
5. Curtain
6. Surge protector
7. Stabilizer
8. Electric source
9. Dust covers
10. Uninterrupted Power Supply (UPS)

Assignment

State two things you can do and not do in the computer lab apart from the ones in your note.

WEEK 6-7

WORD PROCESSING

Word processing is the use of the computer hardware and software to create, edit, view, store, retrieve and print textual materials. The softwares that are used for word processing are called word processors e.g. Microsoft office word, word perfect, script, professional writers, word star etc. before the advent of word processors, typewriters were used in typing but they had a lot of limitations.

Uses of Word Processors

Word processors are used

1. To create documents.
2. To print documents.
3. To create memos.
4. To save documents.
5. To open documents.

Microsoft Office Word

This is a word processor package. It is one of the components of Microsoft office suite. Microsoft word is easy to use because of its special features. There are different versions of Microsoft office word E.g Ms. office 2000, Ms. office 2003, Ms. 2007, Ms. 2010 etc. The newer version improves on the older ones.

Loading Microsoft Word

1. Click on start.
2. Navigate to all programs.
3. Navigate to Microsoft word.
4. Click on Microsoft word.
5. Start typing

To Exit

1. Click on office button from the main menu.
2. Select from the pull down menu and choose to save before closing or not.

WEEK 8-9

DATA PROCESSING

Data processing may be defined as the process of producing or extracting meaningful information from collected data.

Data processing involves the systematic recording calculation selection and combination of data to obtain and disseminate facts.

Data processing can be done manually or with the use of electronic machines. It involves calculating, sorting, editing etc.

Data Processing Cycle

To obtain information, data must be inputted and processed.

Data → (Input) → (Process) → (output) → Information

Data Processing Cycle.

Stages of Data Processing

1. Data gathering stage: At this stage, data is gathered from various sources e.g. interviews, observations, reading books, listening to and watching electronic media, etc.
2. Data collation stage: At this stage, data is sorted out in a way that will make data processing easy.
3. Input stage: At this stage, data must be well prepared and put in the appropriate form to make it easy to process.
4. Data processing stage: At this stage, data is processed or converted into information.
5. Storage stage: At this stage, captured data must be kept somewhere accessible for future use e.g. in CD ROM, disk drives, flash drives etc.
6. Output stage: This is the last stage of data processing are displayed for users to see and use through output devices like printers, monitors, etc.

WEEK 10

FEATURES OF COMPUTER

The following are some features of a computer.

1. Speed: Computer process data very fast.
2. Accuracy: Computers are very accurate when processing data. They are not prone to errors like humans.
3. Reliability: Computers can work for long periods of time, performing repetitive tasks without complaining.
4. Storage: Computers store data efficiently and can enable the data to be retrieved at any point in time when it is needed.
5. Memory capability: Computers store huge amounts of data or information, and they can recall all the data.
6. Exchange of information: Computers can exchange information quickly and easily with other computers and other devices.