#### Module 1 [Hardware and its components] Topic: The Visible Computer

##### Assignment Level Basic

* 1. What is hardware?
* Hardware refer to physical device used in an computer system which can be touched by our hand eg. Mouse, CPU, Keyboard etc.
  1. What is the purpose of Hardware?
* Hardware refers to the physical, tangible computer equipment and devices, which provide support for major functions such as input, processing (internal storage, computation and control), output, secondary storage (for data and programs), and communication.

##### Level Intermediate

* 1. list out two types of hardware.
* 1.internalhardwareparts(components)

2. external hardware devices(peripherals)

##### Assignment Level Advance

1. What is core hardware

* In summary, a core is a small CPU or processor built into a big CPU or CPU socket. It can independently perform or process all computational tasks.

1. Do a practical of identifying hardware

* Done

#### Topic: Category of components

##### Assignment Level Basic

1. What are the category of components in hardware?

* There are five main hardware components in a computer system: Input, Processing, Storage, Output and Communication devices. Are devices used for entering data or instructions to the central processing unit.

1. Why category is needed?

* To identify the parts as per requirement.

##### Assignment Level Intermediate

* 1. Do a practical to identify the components in which category they come.
* Done

#### Topic: Input Device.

##### Assignment Level Basic

1. What is input device?

* In computing, an input device is a piece of equipment used to provide data and control signals to an information processing system, such as a computer or information appliance. Examples of input devices include keyboards, mouse, scanners, cameras, joysticks, and microphones.

1. Why input device needed?

* Today, input devices are important because they are what allows you to interact with and add new information to a computer. For example, if a computer had no input devices, it could run by itself but there would be no way to change its settings, fix errors, or other various user interactions.

##### Assignment Level Intermediate

1. List out the input device.

* Following are some of the important input devices which are used in a computer

1. Keyboard
2. Mouse
3. Joy Stick
4. Light pen
5. Track Ball
6. Scanner
7. Graphic Tablet
8. Microphone
9. Magnetic Ink Card Reader(MICR)
10. Optical Character Reader(OCR)
11. Do a practical to identify input device and describe how it works.

* Done

#### Topic: Output Device

##### Assignment Level Basic

1. What are output device?

* An output device is any hardware device used to send data from a computer to another device or user. Usually, most output peripherals are meant for human use, so they receive the processed data from the computer and transform it in the form of audio, video, or physical reproductions.

1. how does output device work?

* An output device works by receiving a signal from the computer and using that signal to perform a task to display the output. For example, below is a basic list of the steps of how an output device works. On a computer keyboard (input device), if you type "H", it sends (inputs) a signal to the computer.

##### Assignment Level Intermediate

1. List out the output device.

* The various output devices are:
  + - 1. Monitor
      2. Printer
      3. Plotter
      4. Projector
      5. Speakers
      6. Headphones
      7. Sound Card
      8. Video Card

1. Do a practical to identify the output device and describe its working process.

* Done

#### Topic: Motherboard

##### Assignment Level Basic

1. What is motherboard?

* A motherboard is the main printed circuit board (PCB) in a computer. The motherboard is a computer's central communications backbone connectivity point, through which all components and external peripherals connect.

1. Why it is called motherboard?

* The motherboard gets its name because it's the main circuit board in the PC and can be extended by plugging other circuit boards into it. Just as 'the mothership' is known as the central point to which other 'ships' would report, the motherboard plays the same role.

##### Assignment Level Intermediate

1. What it is called if we remove all components from the motherboard?

* Re-assembling.

1. Describe types of motherboard.

* Below are the six different types of Motherboards:

1. AT Motherboard
2. ATX Motherboard
3. LPX Motherboard
4. BTX Motherboard
5. Pico BTX motherboard
6. Mini ITX motherboard.

##### Assignments level Advance:

1. Do a practical by identifying parts of motherboard.

* Done

1. Do a practical by describing the data flow in motherboard.

* Done

1. Do a practical by removing all removable parts from the motherboard.

* Done

#### Topic: CPU

##### Assignment Level Basic

1. What is CPU.

* The Central Processing Unit (CPU) is the primary component of a computer that acts as its “control center.” The CPU, also referred to as the “central” or “main” processor, is a complex set of electronic circuitry that runs the machine's operating system and apps.

1. Write the full form of CPU.

* Central Processing Unit.

##### Assignment Level Intermediate

1. What are the types of CPU?

* There are 6 types of central processing units Single Core Cpu, Dual Core Cpu, Quad Core Cpu, Hexa Core Cpu, Octa Core Cpu, and Deca Core Cpu.

1. What do we need to keep the CPU Healthy?

* To keep CPU Healthy
  + - 1. Use hard to guess passwords
      2. Always be suspicious of unexpected email and attachments
      3. Regularly download security updates
      4. Understand the risks associated with file sharing
      5. Use a firewall
      6. Use anti-virus software
      7. Use anti-spyware software

##### Assignment Level Advance

1. Do a practical to remove processor and apply thermal paste in it and install it again.

* Done

1. Do a practical to Identify CPU and its Sockets.

* Done

#### Topic: Monitor

##### Assignment Level Basic

* 1. What is Monitor?
* A monitor is an electronic visual computer display that includes a screen, circuitry and the case in which that circuitry is enclosed.

##### Assignment Level Intermediate

1. List out the types of monitor.

* Are there only three main types of monitors for computers?

1. CRT – Cathode Ray Tube.
2. LCD – Liquid Crystal Display.
3. LED – Light Emitting Diodes.
4. Do a practical to identify monitor Technology.

* Done

1. What are the Technologies used in monitor.

* Monitor Display Technology,Most desktop displays use liquid crystal display (LCD) or cathode ray tube (CRT) technology, while nearly all portable computing devices such as laptops incorporate LCD technology.

##### Assignment Level Advance

* 1. Describe how does the crt monitor works.
* The operation of a CRT monitor is basically very simple. A heating element in a CRT heats the cathode and causes it to emit electrons which are accelerated and focused on a phosphor screen by means of high voltage grids. An image (raster) is displayed by scanning the electron beam across the screen.

#### Topic: system bus

##### Assignment Level Basic

* 1. What is system bus
* The computer system bus is the method by which data is communicated between all the internal pieces of a computer. It connects the processor to the RAM, to the hard drive, to the video processor, to the I/O drives, and to all the other components of the computer.

##### Assignment Level Intermediate

1. List out the types of system bus.

* Three types of bus are used. Address bus - carries memory addresses from the processor to other components such as primary storage and input/output devices. The address bus is unidirectional . Data bus - carries the data between the processor and other components.

1. Describe the working of system bus.

* A system bus is a facet of computer architecture that transmits and shares data throughout the computer and between devices. It's the primary way for a computer to process information because it connects the main processor to all other internal hardware components of a computer

1. Do a practical to identify the system bus.

* Done

#### Topic: Chipset

##### Assignment Level Basic

* 1. What is chipset
* An electronic chipset manages the flow of data between components on a motherboard. It's the traffic controller between the CPU, GPU, RAM, storage, and peripherals. Experts have referred to it as the “glue” of the motherboard.

##### Assignment Level Intermediate

1. What are the types of chipset?

* There are 2 types of chipset

1. Northbridge chipset
2. Southbridge chipset
3. Which chipset does have direct contact with the cpu.

* The southbridge is one of the two chips in the core logic chipset on a personal computer (PC) motherboard, the other being the northbridge.

1. Do a practical to identify the chipset

* Done

##### Assignment Level Advance

* 1. Describe how does the Northbridge chipset work
* Northbridge is an Intel chipset that communicates with the computer processor and controls interaction with memory, the Peripheral Component Interconnect (PCI) bus, Level 2 cache, and all Accelerated Graphics Port (AGP) activities. Northbridge communicates with the processor using the frontside bus (FSB).

#### Topic:Memory

##### Assignment Level Basic

1. What is memory?

* Computer memory is any physical device capable of storing information temporarily, like RAM (random access memory), or permanently, like ROM (read-only memory).

1. What are the types of memory?

* There are technically two types of computer memory: primary and secondary. The term memory is used as a synonym for primary memory or as an abbreviation for a specific type of primary memory called random access memory (RAM).

##### Assignment Level Intermediate

1. Describe memory in detail.

* Information processing begins in sensory memory, moves to short-term memory, and eventually moves to long-term memory. Maintenance rehearsal and chunking are used to keep information in short-term memory. The capacity of long-term memory is large, and there is no known limit to what we can remember.
* As types: Explicit memory; Implicit memory
* As stages: Sensory memory; Short-term memo...
* As processes: Encoding; Storage; Retrieval

1. What are memory types.

* There are technically two types of computer memory: primary and secondary. The term memory is used as a synonym for primary memory or as an abbreviation for a specific type of primary memory called random access memory (RAM).

##### Assignment Level Advance

1. Do a practical to identify memory types.

* Done

1. Do a practical to install memories in system

* Done

1. Do a practical to identify main memory frequencies.

* Done

#### Topic: System Unit

##### Assignment Level Basic

* 1. What is System Unit?
* A system unit is the part of a computer that houses the primary devices that perform operations and produce results for complex calculations.

##### Assignment Level Intermediate

1. How does system unit work?

* A system unit is the part of a computer that houses the primary devices that perform operations and produce results for complex calculations. It includes the motherboard, CPU, RAM and other components, as well as the case in which these devices are housed.

1. What are the components and system unity?

* The basic structure of the system unit includes the following components: Motherboard — the primary device of the system unit. All other devices are connected to it. The motherboard unites all computer devices (video card, RAM, sound card, hard drive, etc).

##### Assignment Level Advance

1. Do a practical to identify system unit.

* Done

1. Do a practical to assemble and disassemble system unit.

* Done

#### Topic: BIOS

##### Assignment Level Basic

* 1. What is bios.
* BIOS (basic input/output system) is the program a computer's microprocessor uses to start the computer system after it is powered on. It also manages data flow between the computer's operating system (OS) and attached devices, such as the hard disk, video adapter, keyboard, mouse and printer.

##### Assignment Level Intermediate

* 1. What is the full form of bios
* Basic input/output system

2.Describe working process of BIOS.

* BIOS Process several thing on start up of system such as.

1. Check the CMOS Setup for custom settings.
2. Load the interrupt handlers and device drivers.
3. Initialize registers and power management.
4. Perform the power-on self-test (POST)
5. Display system settings.
6. Determine which devices are bootable.
7. Initiate the bootstrap sequence.

##### Assignment Level Advance

1. Do a practical to reset bios when system is on.

* Done

1. Do a practical of Hard resetting the BIOS.

* Done

1. Do a practical of identifying BIOS chip from the motherboard

* Done

#### Topic: CMOS

##### Assignment Level Basic

1.What is CMOS?

* Complementary metal-oxide-semiconductor (CMOS) is a small amount of memory on a computer motherboard that stores the Basic Input/Output System (BIOS) settings. The BIOS is the software stored on the memory chip on the motherboard.

##### Assignment Level Intermediate

1. What is the full form of CMOS?

* The full form of CMOS is the Complementary Metal Oxide Semiconductor.

1. Describe the working process of CMOS.

* CMOS is used to explain the amount of memory on the motherboard of the computer that will store in the settings of BIOS. These settings mainly include the date, time, and settings of hardware. TTL is a digital logic circuit where bipolar transistors work on DC pulses.

##### Assignment Level Advance

1. Do a practical of identifying cmos.

* Done

1. Do a practical of installing cmos

* Done

1. How do we know that cmos is not working.

* Done

#### Topic: Boot process

##### Assignment Level Basic

1.What is Boot Process?

* To boot up is to start up a computer system by providing it with the required electrical power and loading the startup services until the operating system is loaded. It refers to the process of starting a computer from a dead or offline state, thus making it available to perform any computing operation.

##### Assignment Level Intermediate

1. What is the first process of boot?

* Booting is basically the process of starting the computer. When the CPU is first switched on it has nothing inside the Memory.

1. What is the final stage in the boot process?

* Once the user's selection has been recorded, the bootloader moves on to the last and final stage of the boot process. Depending on the OS and the type of kernel, the bootloader will load the kernel image from the path specified in the configuration file (with the help of any submodules, if needed) into the memory.

1. Describe the boot process in Linux?

* Stages of Linux Boot Process: The machine's BIOS or boot microcode hundreds and runs a boot loader. Boot loader finds the kernel image on the disk and loads it into memory, to start the system. The kernel initializes the devices and their drivers.

##### Assignment Level Advance

1. Describe about working with the grub bootloader.

* GRUB. GRUB stands for GRand Unified Bootloader. Its function is to take over from BIOS at boot time, load itself, load the Linux kernel into memory, and then turn over execution to the kernel. Once the kernel takes over, GRUB has done its job and it is no longer needed.

1. Describe working process of boot loader.

* A Bootloader is a program that allows you to load other programs via a more convenient interface like a standard USB cable. When you power-up or reset your microcontroller board, the bootloader checks to see if there is an upload request. If there is, it will upload the new program and burn it into Flash memory.

#### Topic: SMPS

##### Assignment Level Basic

1. What is SMPS?

* The full form of SMPS is Switched Mode Power Supply also known as Switching Mode Power Supply.

1. What is the process of SMPS?

* A switched-mode power supply (SMPS) is an electronic circuit that converts power using switching devices that are turned on and off at high frequencies, and storage components such as inductors or capacitors to supply power when the switching device is in its non-conduction state

##### Assignment Level Intermediate

1. DO a practical to install SMPS.

* Done

1. How many sata connectors are there in normal smps?

* There are total six power outlet (Connector) on SMPS. 1.20 + 4 Pin ATX / Motherboard Connector.

##### Assignment Level Advance

1. Do a practical to troubleshoot a smps without plugging it to the system.

* Done

1. How many pins does atx power connector have?

* An ATX power supply provides a number of peripheral power connectors and (in modern systems) two connectors for the motherboard: an 8-pin (or 4+4-pin) auxiliary connector providing additional power to the CPU and a main 24-pin power supply connector, an extension of the original 20-pin version.

#### Topic: RAM

##### Assignment Level Basic

1. What is RAM?

* RAM stands for random-access memory, but what does that mean? Your computer RAM is essentially short term memory where data is stored as the processor needs it.

1. What is the full form of RAM?

* Random access memory

##### Assignment Level Intermediate

1. What are the types of ram?

* Although all RAM basically serves the same purpose, there are a few different types commonly in use today: Static RAM (SRAM) Dynamic RAM (DRAM) Synchronous Dynamic RAM (SDRAM)

1. Do a practical to identify RAM.

* Done

##### Assignment Level Advance

* 1. Do a Practical to identify ram and install it in a proper system.
* Done

#### Topic: Device and cable

##### Assignment Level Basic

1. What are the types of devices?

* Hardware devices can be classified into four distinct categories:

1. Input devices: For raw data input.
2. Processing devices: To process raw data instructions into information.
3. Output devices: To disseminate data and information.
4. Storage devices: For data and information retention.
5. What are the types of cable?

* Here's an overview of the most common computer cable types you'll encounter when dealing with computers.
  + - 1. VGA Cable. Also known as D-sub cable, analog video cable.
      2. DVI Cable. Connect one end to: computer monitor.
      3. PS/2 Cable.
      4. Ethernet Cable.
      5. 3.5mm Audio Cable.
      6. USB Cable.
      7. Computer Power Cord (Kettle Plug)

##### Assignment Level Intermediate

1. What cables are used to connect printer?

* Wiring a PC to a printer can be done through the following connections: serial, parallel (IEEE 1284 and SCSI), USB, Firewire (IEEE 1394) and Ethernet. PS/2, HDMI, and SATA connections are used for other purposes.

1. What was the first cable founded by Apple for data transfer?

* Over the last fifteen years, Apple has created four charging cables for their iPods, iPhones and iPads. They first used a 6-Pin FireWire connector on the original iPod, then the 30-pin dock connector to FireWire, followed by the 30-pin dock connector to USB and finally the newest 8-pin Lightning connector.

##### Assignment Level Advance

1. Do a practical to identify the sata cables.

* Done

1. Do a practical to identify and install the cables in the system.

* Done

#### Topic: Expansion card and slots

##### Assignment Level Basic

1. Why expansion card needed?

* The primary purpose of an expansion card is to provide or expand on features not offered by the motherboard. For example, the original IBM PC did not have on-board graphics or hard drive capability.

1. Why expansion slots needed?

* An expansion slot is a socket on the motherboard that is used to insert an expansion card (or circuit board), which provides additional features to a computer such as video, sound, advanced graphics, Ethernet or memory.

##### Assignment Level Intermediate

1. What are the types of expansion card?

* Types of expansion cards in a computer

1. Interface card (ATA, Bluetooth, EIDE, FireWire, IDE, parallel, RAID, SCSI, serial, and USB).
2. .MIDI.
3. Modem.
4. MPEG decoder.
5. Network card.
6. Sound card.
7. Tuner card.
8. Video capture card.
9. What are the types of expansion cards?

##### Assignment Level Advance

1. Do a practical to identify the types of expansion slots

* Done

1. Do a practical to install the Graphics card.

* Done

1. Do a practical to install LAN card

* Done

#### Topic: I/O Ports

##### Assignment Level Intermediate

1. What is I/O ports?

* Input/Output port An I/O port is a socket on a computer that a cable is plugged into. The port connects the CPU to a peripheral device via a hardware interface or to the network via a network interface.

1. List out the I/O ports available

* List of i/o ports is as follow

1. COM/Serial port
2. Parallel ports
3. USB port /connectors
4. PS/2 port
5. IDE drive connector
6. Do a practical to identify the I/O ports.

* Done

##### Assignment Level Intermediate

1. What is I/O ports?

* Input/Output port An I/O port is a socket on a computer that a cable is plugged into. The port connects the CPU to a peripheral device via a hardware interface or to the network via a network interface.

1. List out the I/O ports available

* List of i/o ports is as follow

1. COM/Serial port

2. Parallel ports

3. USB port /connectors

4. PS/2 port

5. IDE drive connector

1. Do a practical to identify the I/O ports.

* Done

#### Topic: BIOS & CMOS

##### Assignment Level Basic

1. What is BIOS?

* BIOS (basic input/output system) is the program a computer's microprocessor uses to start the computer system after it is powered on.

1. What is CMOS?

* CMOS is a type of memory technology, but most people use the term to refer to the chip that stores variable data for startup.

##### Assignment Level Intermediate

1. What is the role of BIOS in i/o?

* BIOS (basic input/output system) is the program a computer's microprocessor uses to start the computer system after it is powered on. It also manages data flow between the computer's operating system (OS) and attached devices, such as the hard disk, video adapter, keyboard, mouse and printer.

1. What is the role of i/o in CMOS?

* CMOS (short for complementary metal-oxide-semiconductor) is the term usually used to describe the small amount of memory on a computer motherboard that stores the BIOS settings.

##### Assignment Level Advance

1. Do a practical to reset BIOS

* Done

1. Do a practical to remove cmos.

* Done

#### Topic: Laptop & storage

##### Assignment Level Basic

1. What is laptop?

* Laptops are also known as notebook computers or simply notebooks. A laptop generally runs on a single main battery and is capable of doing the same tasks as a desktop computer can.

1. Why laptop is used widely now a days?

* Laptops, because of their easy access and mobility are the most convenient computers to use today; you can do basically almost anything with a laptop that you can do with a desktop computer. Since laptops are more flexible, mobile, and almost as powerful as desktops, laptops outsell desktops in the market.

##### Assignment Level Intermediate

1. Describe the working process of laptop?

* Laptops combine all the input/output components and capabilities of a desktop computer, including the display screen, small speakers, a keyboard, data storage device, sometimes an optical disc drive, pointing devices (such as a touch pad or pointing stick), with an operating system, a processor and memory into a single unit.

1. What is storage?

* Storage (either a hard drive or a solid state drive) stores data long-term for permanent access. It's the component that accesses and stores your files, applications, and operating system. The storage drive is non-volatile, which means the data is stored even if you turn off the computer.

1. List out the types of storage.

* External storage devices

1. External HDDs and SSDs.
2. Flash memory devices.
3. Optical Storage Devices.
4. Floppy Disks.
5. Primary Storage: Random Access Memory (RAM) .
6. Secondary Storage: Hard Disk Drives (HDD) & Solid-State Drives (SSD) .
7. Hard Disk Drives (HDD) .
8. Solid-State Drives (SSD).

##### Assignment Level Advance

1. Do a practical to identify types of storage.

* Done

1. Do a practical to disassemble and assemble the storage.

* Done

1. Do a practical to install the storage devices.

* Done

#### Topic: Printer

##### Assignment Level Basic

1. What is printer?

* A printer is a device that accepts text and graphic output from a computer and transfers the information to paper, usually to standard-size, 8.5" by 11" sheets of paper. Printers vary in size, speed, sophistication and cost.

1. Why is printer needed?

* Here are a few reasons why we still need printers in our home and office… People simply find it easier and more convenient to print off a report, grab a pen and make notes and changes, highlight passages and underline important phrases.

##### Assignment Level Intermediate

1. Describe the working process of printer.

* In short, printers work by converting digital images and text into physical copies. They do this using a driver or specialised software that has been designed to convert the file into a language that the printer can understand. The image or text is then recreated on to the page using a series of miniscule dots.

1. What are the types of printer.

* Inkjet Printers. For home printing tasks, an inkjet printer is a gold standard.
* Laser Printers.
* All-In-One Printers.
* Dot Matrix Printers.
* Supertank Printers.

##### Assignment Level Advance

1. Do a practical to install the printer

* Done

1. Do a practical to Troubleshoot the improper printing.

* Done

#### Topic: Storage devices

##### Assignment Level Basic

1. What is storage device?

* Storage (either a hard drive or a solid state drive) stores data long-term for permanent access. It's the component that accesses and stores your files, applications, and operating system. The storage drive is non-volatile, which means the data is stored even if you turn off the computer.

1. Why we need storage device

* One purpose of storage devices is to back up or archive your important data. In the business world, there is a need to store data permanently and in a way that does not get destroyed, corrupted or damaged easily. Different types of storage media can be used for backing up or archiving.

##### Assignment Level Intermediate

1. List out the types of storage devices. Repeat
2. Describe the working process of storage devices.

* Binary data is primarily stored on the hard disk drive (HDD). The device is made up of a spinning disk (or disks) with magnetic coatings and heads that can both read and write information in the form of magnetic patterns. In addition to hard disk drives, floppy disks and tapes also store data magnetically.

##### Assignment Level Advance

* 1. Do a practical to Remove storage devices and reinstall it and make a gpt disk.
* Done

#### Topic: ATA

##### Assignment Level Intermediate

* 1. What is ATA?
* Advanced Technology Attachment (ATA) is a standard physical interface for connecting storage devices within a computer. ATA allows hard disks and CD-ROMs to be internally connected to the motherboard and perform basic input/output functions.

##### Assignment Level intermediate:

* 1. Describe working of ATA.
* The ATA interface standard was designed to connect supported, integrated and portable storage devices without the need for an external controller. The ATA interface is basically a set of thin wires merged within a cable bus that are used to transfer data in and out of the disk drives. Initially, ATA supported parallel communication and was also called Parallel ATA (PATA). It consisted of a 40-pin controller cable and data transfer speed of 16-32 bits at a time.

##### Assignment level Advanced:

* 1. Do a practical to identify and install ATA cables.
* Done

#### Topic: SATA

##### Assignment Level Basic

1.What is SATA?

* Serial ATA (Serial Advanced Technology Attachment or SATA) is a command and transport protocol that defines how data is transferred between a computer's motherboard and mass storage devices, such as hard disk drives (HDDs), optical drives and solid-state drives (SSDs).

##### Assignment Level Advance

1. Describe the working of SATA.

* As its name suggests, a Serial ATA drive transfers data in serial fashion. Data is moved one bit at a time between a SATA drive and its host, using a seven-pin data cable and 15-pin power cable. The SATA cable results in a higher signaling rate, which corresponds to faster throughput of data.

1. Do a practical to identify sata.

* Done

1. Do a practical to install SATA.

* Done

1. Where does SATA is used.

* It is used in laptops and other portable computing devices. The mSATA spec maps SATA signals to an internally mounted PCIe card in a computer's motherboard, using an mSATA connector. MSATA drives are designed without an outer shell to fit inside small host devices.

#### Topic: SCSI

##### Assignment Basic

1. What is SCSI?

* Small Computer System Interface is a set of standards for physically connecting and transferring data between computers and peripheral devices.

1. Why SCSI needed?

* SCSI is used to increase performance, deliver faster data transfer transmission and provide larger expansion for devices such as CD-ROM drives, scanners, DVD drives and CD writers.

##### Assignment level Intermediate:

1. What is the rpm of SCSI?

* SCSI drives come in 10,000 or 15,000 rotations per minute (RPM) versions, meaning it will access data much faster than your desktop will (desktop drives are generally 5400 or 7200 RPM).

1. Do a Practical to install scsi.

* Done

#### Topic: Laptop

##### Assignment Level Basic:

1. What is laptop?

* Laptops are also known as notebook computers or simply notebooks. A laptop generally runs on a single main battery and is capable of doing the same tasks as a desktop computer can.

1. What are the types of laptop?

* Notebook (aka laptop) The general term for a full-sized laptop that strikes a balance between portability and functionality.
* Ultraportable.
* Ultrabook.
* Chromebook.
* MacBook.
* Convertible (2-in-1)
* Tablet as a laptop.
* Netbook.

1. Diffrent names of laptop.

* laptop computer
* laptop.
* microcomputer.
* minicomputer.
* notebook computer.
* palmtop.

##### Assignment level Intermediate:

1. What are the parts of laptop?

* The parts of laptop include display screen, keyboard, base panel, top panel, Cooling Fan, RAM, hard disk, palm rest assembly, battery, hinges, speaker, optical drive, antenna etc. Introduction: As we know laptop is most common computing device used around the world due to its portable nature.

1. Do a practical of identifying parts of the laptop.

* Done

##### Assignment level Advance.

1. Do a practical to disassemble the laptop.

* Done

1. Do a practical to change the RAM in the laptop.

* Done

#### TOPIC: PRINTER

##### ASSIGNMENT LEVEL BASIC:

1. WHAT IS PRINTER?

* A printer is a device that accepts text and graphic output from a computer and transfers the information to paper, usually to standard-size, 8.5" by 11" sheets of paper. Printers vary in size, speed, sophistication and cost.

1. IS IT A INPUT DEVICE OR OUTPUT DEVICE?

Printer is an output device, which is used to print information on paper.

##### Assignment level intermediate:

1. Describe the types of printer.

* Inkjet Printers. For home printing tasks, an inkjet printer is a gold standard.
* Laser Printers.
* All-In-One Printers.
* Dot Matrix Printers.
* Supertank Printers.

1. Describe inkjet printer.

* Inkjet printing is a type of computer printing that recreates a digital image by propelling droplets of ink onto paper and plastic substrates. Inkjet printers were the most commonly used type of printer in 2008, and range from small inexpensive consumer models to expensive professional machines.

##### Assignment level Advanced:

1. Do a practical of network installation of the printer.

* Done

1. do a practical to troubleshoot the printer of no cartridge error.

* Done