

Hardware Networking

## TERM-1 Comptia A+ N+ Assignment

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

##### Assignment Level Basic

* 1. What is hardware?
* Hardware is the physical components of a computer, such as the motherboard, processor, memory, storage drives, and other devices.
  1. What is the purpose of Hardware?
* It is the hardware that hosts and supports software or programs that provide instructions for the computer to complete its tasks.

##### Assignment Level Intermediate

* 1. List out two types of hardware.
* Hardware can also include external input/output devices such as keyboards, mice, monitors, printers, and speakers.

##### Assignment Level Advance

1. What is core hardware

* A core is a small CPU or processor built into a big CPU or CPU socket.

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.

1. Why category is needed?

* Are devices used for entering data or instructions to the central processing unit.

##### 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?

* 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.

1. Why input device needed?

* The purpose of an input device is to enable computer operators to have control of the computer and send data such as text, images, or sounds to the computer.

##### Assignment Level Intermediate

1. List out the input device.

* Input Device

1. Keyboard.
2. Mouse.
3. Joy Stick.
4. Light Pen.
5. Microphone.
6. Scanner.
7. Barcode Reader.
8. 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.

1. How does output device work?

* An output device allows data to be transmitted by the computer in a human-friendly form, for example, sound being played through a speaker. Monitor - The main output device of a computer. It forms images by converting electrical energy into light in the form of tiny dots on the screen called pixels.

##### Assignment Level Intermediate

1. List out the output device.

* Monitors, printers, speakers, headphones, projectors, GPS devices, optical mark readers, and braille readers.

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

* Done.

#### Topic: Motherboard

##### Assignment Level Basic

1. What is motherboard?

* The main board of a computer that contains all the circuits.

1. Why it is called motherboard?

* It's called a motherboard because it's the main circuit board. Much like the term “mothership," the word motherboard signifies its essential nature.

##### Assignment Level Intermediate

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

* If you remove all components from a motherboard, it can be referred to as a "bare motherboard" or a "bareboard."

1. Describe types of motherboard.

* Motherboards come in various types or form factors, each catering to different needs and applications. Here are some of the common types of motherboards:

1. ATX (Advanced Technology extended):

ATX is one of the most prevalent motherboard form factors. It comes in different sizes, including Standard-ATX, Micro-ATX, and Mini-ITX. ATX boards are typically used in desktop computers and offer various expansion slots, multiple RAM slots, and a range of connectors. They are well-suited for workstations, gaming rigs, and general-purpose desktop PCs.

1. Micro-ATX:

Micro-ATX is a smaller version of the ATX form factor. It offers fewer expansion slots and a more compact design, making it suitable for smaller cases and budget-friendly builds. Micro-ATX motherboards are commonly used in smaller desktops and home theater PCs.

1. Mini-ITX:

Mini-ITX is the smallest widely-used motherboard form factor. It is designed for ultra-compact and space-efficient systems. Mini-ITX boards typically have only one expansion slot and fewer RAM slots, but they are perfect for building small form factor PCs, HTPCs, and portable systems.

1. Extended ATX (EATX):

EATX is larger than ATX and offers additional expansion slots and connectors. These boards are commonly used in high-end desktops and enthusiast-grade systems that require multiple GPUs, storage devices, and other peripherals. EATX motherboards are often found in gaming PCs and content creation workstations.

1. Mini-STX (5x5):

Mini-STX is a compact form factor designed for small and energy-efficient computers. It's even smaller than Mini-ITX and allows for CPUs with soldered-on sockets, making it more suitable for basic tasks and low-power applications.

1. FlexATX:

FlexATX is a smaller version of Micro-ATX, and it is designed for slim or low-profile desktop cases. FlexATX boards are commonly used in small form factor PCs that require a reduced height for space-saving purposes.

1. ATX BTX (Balanced Technology extended):

BTX was an alternative form factor to ATX, designed to improve thermal performance by altering the component layout. However, it never gained widespread adoption and has been largely discontinued.

1. ITX (Information Technology extended):

ITX is a standardized form factor used for industrial and embedded systems. It is distinct from Mini-ITX and is not widely used in consumer PCs. ITX motherboards are designed for specialized applications, such as digital signage, kiosks, and thin clients.

The choice of motherboard type depends on factors such as the intended use of the computer, the size of the case, and the desired level of expandability. When building a PC, it's essential to select a compatible motherboard that suits your specific needs and fits within the constraints of your chosen case and components.

##### 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.

* CPU is short for Central Processing Unit. It is also known as a processor or microporcessor.

1. Write the full form of CPU.

* Central Processing Unit.

##### Assignment Level Intermediate

1. What are the types of CPU?

* Six differents types of CPU are there:

1. Single-Core CPU.
2. Dual-Core CPU.
3. Quad-Core CPU.
4. Hexa-Core CPU.
5. Octa-Core CPU.
6. Deca-Core CPU.
7. What do we need to keep the CPU Healthy?

* 10 Ways To Keep Your Computer Healthy.

1. Restart your computer at least once a week.
2. Hygiene your Programs.
3. Defrag your hard drive.
4. Investigate Startup programs.
5. Install Antivirus Software.
6. Use an Anti-Surge Protection Extension.
7. Back-Up Your Files.
8. Prevent Overheating.
9. Clean your Fans.
10. Stay Alert.

##### 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 computer monitor is an output device that displays information in pictorial or textual form.

##### Assignment Level Intermediate

1. List out the types of monitor.

* 5 types of monitors available today

1. LCD monitor. LCD stands for Liquid crystal display and is the most widely used monitor in the world. ...
2. LED monitor. An LED (Light Emitting Diode) display is among the newest techs out there and can be flat or curved.
3. OLED monitor.
4. CRT monitor.
5. Plasma monitor.
6. Do a practical to identify monitor Technology.

* Done.

1. What are the Technologies used in monitor.

* Technologies

1. Cathode-ray tube.
2. Liquid-crystal display.
3. Organic light-emitting diode.

##### Assignment Level Advance

* 1. Describe how does the crt monitor works.
* CRT is a technology used in traditional computer monitors and televisions. The image on CRT display is created by firing electrons from the back of the tube of phosphorus located towards the front of the screen. Once the electron heats the phosphorus, they light up, and they are projected on a screen.

#### Topic: system bus

##### Assignment Level Basic

* 1. What is system bus?
* A system bus is a facet of computer architecture that transmits and shares data throughout the computer and between devices.

##### Assignment Level Intermediate

1. List out the types of system bus.

* Three types of bus are used.

1. Address bus - carries memory addresses from the processor to other components such as primary storage and input/output devices.
2. Data bus - carries the data between the processor and other components.
3. Control bus - carries control signals from the processor to other components.
4. 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.

1. Do a practical to identify the system bus.

* Done.

#### Topic: Chipset

##### Assignment Level Basic

* 1. What is chipset?
* A collection of integrated circuits which are designed to function together as a unit, especially to perform a particular task within a computer system.

##### Assignment Level Intermediate

1. What are the types of chipset?

* For PC motherboards, there are two main chipsets: the northbridge and the southbridge.

1. Which chipset does have direct contact with the cpu.

* The northbridge is directly connected to the CPU, allowing for faster transmissions between it and ports that require faster speeds.

1. Do a practical to identify the chipset.

* Done.

##### Assignment Level Advance

* 1. Describe how does the Northbridge chipset work?
* North Bridge is bridge that manages communication between Central Processing Unit (CPU) and parts of motherboard. After CPU, North Bridge chip is essentially main component of motherboard and is only motherboard circuit besides CPU that normally runs at full processor bus speed (Front side bus).

#### Topic:Memory

##### Assignment Level Basic

1. What is memory?

* Memory is the electronic holding place for the instructions and data a computer needs to reach quickly.

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.

* Memory is the process of taking in information from the world around us, processing it, storing it and later recalling that information, sometimes many years later. Human memory is often likened to that of a computer memory system or a filing cabinet.

1. What are memory types.

* Memory types refer to the different categories or classifications of computer memory, each serving a specific purpose in storing and accessing data. Here are some common memory types:

1. Random Access Memory (RAM)
2. Read-Only Memory (ROM)
3. Cache Memory
4. Hard Disk Drive (HDD)
5. Solid-State Drive (SSD)
6. Virtual Memory
7. Graphic Memory (VRAM)
8. Flash Memory

##### 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. This unit performs the majority of the functions that a computer is required to do.

##### 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.

1. What are the components and system unity?

* It includes the motherboard, CPU, RAM and other components, as well as the case in which these devices are housed.

##### 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 is the program a computer's microprocessor uses to start the computer system after it is powered on.

##### Assignment Level Intermediate

* 1. What is the full form of bios
* BIOS (basic input/output system)
  1. Describe working process of BIOS.
* 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 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?
* It refers to a type of semiconductor technology used to manufacture integrated circuits (ICs), such as microprocessors, memory chips, and other digital logic circuits.

##### Assignment Level Intermediate

1. What is the full form of CMOS?

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

1. Describe the working process of CMOS.

* This characteristic allows the design of logic devices using only simple switches, without the need for a pull- up resistor. In CMOS logic gates a collection of n-type MOSFETs is arranged in a pull-down network between the output and the low voltage power supply rail.

##### 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.

* You can tell if your CMOS battery has died if your laptop has difficult booting up, if drivers disappear, and if your laptop's date and time are incorrect. Replacing a CMOS battery is a very simple fix.

#### Topic: Boot process

##### Assignment Level Basic

1. What is Boot Process?

* In computing, booting is the process of starting a computer as initiated via hardware such as a button or by a software command. After it is switched on, a computer's central processing unit (CPU) has no software in its main memory, so some process must load software into memory before it can be executed. This may be done by hardware or firmware in the CPU, or by a separate processor in the computer system.

##### Assignment Level Intermediate

1. What is the first process of boot?

* It is the process when we first start the computer. In other words, when the computer is started from its initial state by pressing the power button it is called cold boot. The instructions are read from the ROM and the operating system is loaded in the main memory.

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

* At the later stages of the boot sequence, the operating system is loaded from the hard disk to the primary memory (RAM) to perform necessary tasks. Then, at the last stage, full control of hardware and machine is granted to the OS so that it can look after all the operations.

1. Describe the boot process in Linux?

* The boot loader catches the kernel image over the disk and ships it into memory to begin the computer. The kernel boots the devices and drivers. The kernel mounts the common filesystem. The kernel begins a program called init with a zero method ID.

##### Assignment Level Advance

1. Describe about working with the grub bootloader.

* GRUB provides maximum flexibility in loading the operating systems with required options using a command based, pre-operating system environment.

1. Describe working process of boot loader.

* A bootloader helps to load the operating system or runtime environment to add programs to memory and provide access for components. It is needed to run the startup process, initialize the hardware, and pass control to the kernel, which initializes the operating system.

#### Topic: SMPS

##### Assignment Level Basic

1. What is 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.

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?

* SATA connectors, on the other hand, are used to connect storage devices like hard disk drives (HDDs) and solid-state drives (SSDs) to the motherboard or power supply. The number of SATA connectors in a power supply is not fixed and can vary depending on the specific model and wattage rating of the power supply.

##### 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 8-pin (or 4+4-pin) auxiliary connector providing additional power to the CPU and a main 24-pin power supply connector.

#### Topic: RAM

##### Assignment Level Basic

1. What is RAM?

* It is a type of computer memory that allows data to be accessed randomly, meaning any storage location in RAM can be accessed directly without the need to read through the data sequentially.

1. What is the full form of RAM?

* RAM stands for "Random Access Memory."

##### Assignment Level Intermediate

1. What are the types of ram?

* There are two main types of RAM: Dynamic RAM (DRAM) and Static RAM (SRAM). DRAM (pronounced DEE-RAM), is widely used as a computer's main memory.

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?

* Types of devices

1. Input devices, which write data to a computer, includes keyboards, mice, touchpads, joysticks, scanners, microphones, barcode scanners, and webcams.
2. Output devices, which accept data from a computer, includes display monitors, printers, speakers, headphones, and projectors.
3. What are the types of cable?

* 1. HDMI cable

2. VGA cable

3. DVI cable

4. Ethernet Cable

5. PS/2 Cable

6. 5mm Audio Cable

7. USB cables

##### Assignment Level Intermediate

1. What cables are used to connect printer?

* The majority of printers are compatible with a USB 2.0 A/B cable.

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

* The first cable founded by Apple for data transfer was the Apple Desktop Bus (ADB) cable.

##### 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.

1. Why expansion slots needed?

* Computers have expansion slots to give the user the ability to add new devices to their computer.

##### 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.

##### 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?

* I/O ports, or Input/Output ports, are connectors or interfaces on a computer or electronic device that allow data to be transferred to and from external devices.

1. List out the I/O ports available.

* Here is a list of some common I/O ports:

1. Serial Ports
2. Parallel Ports
3. USB Ports
4. Ethernet Ports
5. Audio Ports
6. VGA, DVI, HDMI, DisplayPort
7. PS/2 Ports
8. FireWire (IEEE 1394) Ports
9. Thunderbolt Ports
10. SATA Ports
11. eSATA Ports
12. Card Reader Ports
13. IR (Infrared) Ports
14. Bluetooth Ports
15. Modem Ports
16. Game/MIDI Ports
17. 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?

* A complementary metal-oxide semiconductor (CMOS) is the semiconductor technology used in most of today's integrated circuits (ICs), also known as chips or microchips. CMOS transistors are based on metal-oxide semiconductor field-effect transistor (MOSFET) technology. MOSFETs serve as switches or amplifiers that control the amount of electricity flowing between source and drain terminals, based on the amount of applied voltage.

##### 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?

* High-speed I/Os use incident-wave signaling in which a signal is detected on its first traversal of the signal line (the incident wave) and absorbed by a receive termination. This enables the data bandwidth to scale with transistor performance, independent of the length of the line.

##### 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?

* A small computer that is easy to carry and that can use batteries for power.

1. Why laptop is used widely now a days?

* Laptops are being widely used for safety and security purposes with various tools and technologies. Security cameras are the most common devices that are wired or wirelessly attached to laptops, which enable people to track real-time activities in confined areas.

##### Assignment Level Intermediate

1. Describe the working process of laptop?

* Laptops combine all of the input and output capabilities and components of a desktop computer, including its display screen, keyboard, speakers, data storage, disc drives, and pointing devices (a touchpad or a trackpad), with a processor and operating system into a smaller

1. What is storage?

* Storage is a process through which digital data is saved within a data storage device by means of computing technology.

1. List out the types of storage.

* DAS devices include floppy disks, optical discs—compact discs (CDs) and digital video discs (DVDs)—hard disk drives (HDD), flash drives and solid-state drives (SSD). Network-based storage allows more than one computer to access it through a network, making it better for data sharing and collaboration.

##### 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 hardware output device that is used to generate hard copy and print any document.

1. Why is printer needed?

* In general, the printer is a hardware device that is used to get a hard copy of a document or a file. It can be used for: getting the printout of important documents. to prepare projects in schools or colleges.

##### Assignment Level Intermediate

1. Describe the working process of printer.

* At the basic level, printers work by converting digital images and text into physical copies. They do this using a driver or specialized 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 the page using a series of minuscule dots.

1. What are the types of printer.

* Types of Printers

1. Laser Printers.
2. Solid Ink Printers.
3. LED Printers.
4. Business Inkjet Printers.
5. Home Inkjet Printers.
6. Multifunction Printers.
7. Dot Matrix Printers.
8. 3D 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?

* A piece of computer equipment on which information can be stored.

1. Why we need storage device?

* A storage device for a computer enables its user to store and safely access the data and applications on a computer device. Knowing and learning about these computer storage devices is necessary as it works as one of the core components of the system.

##### Assignment Level Intermediate

1. List out the types of storage devices.

* Storage devices in a computer

1. RAM. RAM means random access memory which is used to access any temporary data and to get intermediate results for the usage of that information.
2. ROM. ROM means read-only memory.
3. Floppy disk.
4. Hard disk.
5. Magnetic disk.
6. Pen drive.
7. SSD.
8. SD card.
9. Describe the working process of storage devices.

* A storage device is any type of computing hardware that is used for storing, porting or extracting data files and objects. Storage devices can hold and store information both temporarily and permanently. They may be internal or external to a computer, server or computing device.

##### 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.

##### Assignment Level intermediate:

* 1. Describe working of ATA.
* Defines how data is transferred between a computer's motherboard and mass storage devices.

##### Assignment level Advanced:

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

#### Topic: SATA

##### Assignment Level Basic

1. What is SATA?

* SATA is a serial version of the Integrated Drive Electronics (IDE) specification for PATA hard drives that use parallel signaling.

##### Assignment Level Advance

1. Describe the working of 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).

1. Do a practical to identify sata.

* Done.

1. Do a practical to install SATA.

* Done

1. Where does SATA is used.

* SATA cables are typically used inside a computer's case.

#### Topic: SCSI

##### Assignment Basic

1. What is SCSI?

* A small computer systems interface (SCSI) is a standard interface for connecting peripheral devices to a PC.

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?

* However, when you refer to SCSI RPM, you might be thinking about the rotational speed of SCSI hard drives. SCSI hard drives, like their IDE and SATA counterparts, can come in various rotational speeds such as 5400 RPM, 7200 RPM, 10,000 RPM, and 15,000 RPM. The RPM value indicates how fast the platters inside the hard drive spin.

1. Do a Practical to install scsi.

* Done.

#### Topic: Laptop

##### Assignment Level Basic:

1. What is laptop?

* A small computer that is easy to carry and that can use batteries for power.

1. What are the types of laptop?

* Types Of Laptop

1. Notebook
2. Chromebook
3. Netbook
4. Ultrabook
5. MacBook Air
6. Convertible 2 in 1
7. MacBook
8. Different names of laptop.

* laptop computer

1. laptop.
2. microcomputer.
3. minicomputer.
4. notebook computer.
5. 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.

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 hardware output device that is used to generate hard copy and print any document.

1. IS IT A INPUT DEVICE OR OUTPUT DEVICE?

* Output Device.

##### Assignment level intermediate:

1. Describe the types of printer.

* Types of Printers

1. Laser Printers.
2. Solid Ink Printers.
3. LED Printers.
4. Business Inkjet Printers.
5. Home Inkjet Printers.
6. Multifunction Printers.
7. Dot Matrix Printers.
8. 3D Printers.
9. Describe inkjet printer.

* An inkjet printer is a computer peripheral that produces hard copies of a text document or photo by spraying droplets of ink onto paper. A typical inkjet printer can produce color printing copies with a resolution of 1200 x 1440 dpi.

##### 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.