

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?

Ans: Hardware is a physical component that includes Monitor, Ram, CPU, GPU, HDD Drive, Mouse, Keyboard, Different types of ports, Motherboard, Fan, etc.

2. What is the purpose of Hardware?

Ans: The purpose of hardware is input-processing-output, and also it is giving us many things that help us to make our work easier.

✘ Assignment Level Intermediate

1. list out two types of hardware.

Ans: There are two types of hardware Internal AND External.

✘ Assignment Level Advance

1. What is core hardware?

Ans: core hardware is a physical part of computer.

2. Do a practical of identifying hardware

Ans: done

Topic: Category of components

✘ Assignment Level Basic

1. What are the category of components in hardware?

Ans: Motherboard, CPU, GPU, RAM, Monitor, HDD, And many more.

2. Why category is needed?

Ans: Because there are Many types of hardware and each component is used for different functions that's why we needed category.

✘ Assignment Level Intermediate

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

Ans : done

Topic: Input Device

✘ Assignment Level Basic

1. What is input device?

Ans: Input device also call as external devices. Input device is a device that gives instruction and data direct to PC.

2. Why input device needed?

Ans: Input device is needed because without input device we cannot control our pc and we cannot give instructions and data to PC.

✘ Assignment Level Intermediate

1. List out the input device.

Ans: Keyboard, Mouse, Digitizer, Digital pen, Biometric Device, etc.

2. Do a practical to identify input device and describe how it works.

Ans : done.

Topic: Output Device

✘ Assignment Level Basic

1. What are output device?

Ans: Output device also know as internal device. Output device receive data from pc and convert data form to video audio or text form.

2. how does output device work?

Ans: Output device take data from pc and gives us in useful form like text, audio, video, picture, etc.

✘ Assignment Level Intermediate

1. List out the output device.

Ans: printer, PC Camera, monitor, speakers, WLAN receiver etc.

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

Ans: done

Topic: Motherboard

✘ Assignment Level Basic

1. What is motherboard?

Ans: motherboard is a physical thing that connected different types of components together

2. Why it is called motherboard?

Ans : It is called motherboard because without motherboard we can not run P.C.

✘ Assignment Level Intermediate

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

Ans: Only board.

2. Describe types of motherboard.

Ans: ATX, Micro ATX, BTX etc.

✘ Assignments level Advance:

1. Do a practical by identifying parts of motherboard.

Ans: done.

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

Ans: done

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

Ans: done

Topic: CPU

✘ Assignment Level Basic

1. What is CPU.

Ans: CPU is a Thing that help motherboard to convert data to information for understanding.

2. Write the full form of CPU.

Ans: central processing unit.

✘ Assignment Level Intermediate

1. What are the types of CPU?

Ans: There are two types of CPU,

1- Intel

2- AMD

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

Ans: We need heat shrink paste (thermal paste) and a CPU fan to keep the CPU healthy.

Use expensive paste for better result

✘ Assignment Level Advance

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

Ans: done

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

Ans: done

Topic: Monitor

✘ Assignment Level Basic

1. What is Monitor?

Ans: Monitor is a physical output device that connected with motherboard and display information.

✘ Assignment Level Intermediate

1. List out the types of monitor.

Ans: LCD, LED, QLED, AMOLED, CRT etc.

2. Do a practical to identify monitor Technology.

Ans: done

3. What are the Technologies used in monitor.

Ans: CRT and LCD

✘ Assignment Level Advance

1. Describe how does the crt monitor works.

Ans: don't know.

Topic: system bus

✘ Assignment Level Basic

1. What is system bus

Ans: System bus is a path that connected between ram, CPU, and other

helping

Components to transfer data between devices.

✘ Assignment Level Intermediate

1. List out the types of system bus.

Ans: FSB AND DMI.

2. Describe the working of system bus.

Ans: system bus working between ram, CPU, and other devices that helps to

transfer data. System buses have many parts like data bus, DMI bus, FSB bus, and many more that connected with each other and transfer data each other.

3. Do a practical to identify the system bus.

Ans: done

Topic: Chipset

✘ Assignment Level Basic

1. What is chipset

Ans: chipset manage dataflow between components.

✘ Assignment Level Intermediate

1. What are the types of chipset?

Ans: 1 northbridge

2 southbridge.

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

Ans: northbridge

3. Do a practical to identify the chipset

Ans: done

✘ Assignment Level Advance

1. Describe how does the Northbridge chipset work

Topic:Memory

✘ Assignment Level Basic

1. What is memory?

Ans: memory is like storage it collect information stored it and when we need it provide us .

2. What are the types of memory?

Ans: short term memory

long term memory.

☒ Assignment Level Intermediate

1. Describe memory in detail.

Ans: memory is a type that stored data in binary language and also stored data in two types short term and long term when we need information it gives us from its memory.

2. What are memory types.

Ans: short term memory
long term memory.

☒ Assignment Level Advance

1. Do a practical to identify memory types.

Ans: done

2. Do a practical to install memories in system

Ans: done

3. 3. Do a practical to identify main memory frequencies.

Ans: done

Topic: System Unit

☒ Assignment Level Basic

1. What is System Unit?

Ans: system unit is a part of a computer that houses primary devices that perform operations.

☒ Assignment Level Intermediate

1. How does system unit work?

Ans: they communicate each other and transfer data each other.

2. What are the components and system unity?

Ans: Fan, ram, processor, rom, hdd, motherboard, external devices.

✘ Assignment Level Advance

1. Do a practical to identify system unit.

Ans: done

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

Ans: done

Topic: BIOS

• Assignment Level Basic

1. What is bios.

Ans: BIOS is a program that helps pc to start when its in power on mode.

• Assignment Level Intermediate

1. What is the full form of bios .

Ans: BASIC INPUT OUTPUT SYSTEM.

2. 2.Describe working process of BIOS.

Ans: when we started our pc bios check ram, HDD, O.S, keyboard, mouse, and boot device. When it founded and checked every thing is working properly than our pc start perfectly. And it also use for set date and time, overclocking, underclocking etc.

✘ Assignment Level Advance

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

Ans: done

2. Do a practical of Hard resetting the BIOS.

Ans: done

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

Ans: done

Topic: CMOS

✘ Assignment Level Basic

1. What is CMOS?

Ans: CMOS that stored our bios settings. Cmos also called as cmos cell.

✘ Assignment Level Intermediate

1. What is the full form of CMOS?

Ans: don't know. According google: Complementary metal oxide semiconductor.

2. Describe the working process of CMOS.

Ans: CMOS cell that stored our bios settings. When we change settings in bios it stored in cmos cell.

✘ Assignment Level Advance

1. Do a practical of identifying cmos.

Ans: done

2. Do a practical of installing cmos.

Ans: done

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

Ans: done

Topic: Boot process

✘ Assignment Level Basic

1. What is Boot Process?

Ans: booting is basically the process of starting the computer.

✘ Assignment Level Intermediate

1. What is the first process of boot?

Ans: first it load basic filesystem drivers.

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

Ans: load our installed Operating system.

3. Describe the boot process in Linux?

✘ Assignment Level Advance

1. Describe about working with the grub bootloader.
2. Describe working process of boot loader.

Topic: SMPS

✘ Assignment Level Basic

1. What is SMPS?

Ans: smps is a module that convert AC power supply into DC to run pc.

2. What is the process of SMPS?

Ans: SMPS is a module that convert AC power supply into DC to run pc.

✘ Assignment Level Intermediate

1. DO a practical to install SMPS.

Ans: done

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

Ans: 3 to 6 connectors in normal SMPS.

✘ Assignment Level Advance

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

Ans: done

2. How many pins does atx power connector have?

Ans: 24 pins .

Topic: RAM

✘ Assignment Level Basic

1. What is RAM?

Ans: ram is a computer's short term memory it stores our data that CPU needs to run in our application or open different files.

2. What is the full form of RAM?

Ans: random access memory.

✘ Assignment Level Intermediate

1. What are the types of ram?

Ans: there many types of ram like DRAM(dynamic ram), SRAM(static ram), DDR(double data rate), SDRAM.

2. Do a practical to identify RAM.

Ans: done.

✘ Assignment Level Advance

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

Ans: done.

Topic: Device and cable

✘ Assignment Level Basic

1. What are the types of devices?

Ans: input, output, processing device, storage device.

2. What are the types of cable?

Ans: USB 2.0, 3.0, .TYPE A, TYPE B, MINI, MICRO, TYPE C, LIGHTNING.

✘ Assignment Level Intermediate

1. What cables are used to connect printer?

Ans: parallel cable.

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

Ans: firewire.

✘ Assignment Level Advance

1. Do a practical to identify the sata cables.

Ans: done.

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

Ans: done.

Topic: Expansion card and slots

✘ Assignment Level Basic

1. Why expansion card needed?

Ans: Expansion card is optional if you don't have necessary ports in your motherboard then you need to install that card in expansion slot that gives you new port.

2. Why expansion slots needed?

Ans: If you don't have necessary ports in your motherboard so you need expansion

Slot to install expansion card.

✘ Assignment Level Intermediate

1. What are the types of expansion card?

Ans: There are many types of cards like sound card, video card, network card, USB card, etc.

2. What are the types of expansion cards?

Ans: There are many types of cards like sound card, video card, network card, USB card, etc.

✘ Assignment Level Advance

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

Ans: done

2. Do a practical to install the Graphics card.

Ans: done

3. Do a practical to install LAN card

Ans: done

Topic: I/O Ports

✘ Assignment Level Intermediate

1. What is I/O ports?

Ans: io ports is a socket on a computer that a cable is plugged into.

2. List out the I/O ports available.

Ans: PS port, VGA port, HDMI port, USB port, audio port, parallel port, etc.

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

Ans: done

✘ Assignment Level Intermediate

1. What is I/O ports?

Ans: io ports is a socket on a computer that a cable is plugged into.

2. List out the I/O ports available.

Ans: PS port, VGA port, HDMI port, USB port, audio port, parallel port, etc.

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

Ans: done.

7Topic: BIOS & CMOS 7890

✘ Assignment Level Basic

1. What is BIOS?

Ans: BIOS is a program that helps pc to start when its in power on mode.

2. What is CMOS?

Ans: CMOS that stored our bios settings. Cmos also called as cmos cell.

✘ Assignment Level Intermediate

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

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

✘ Assignment Level Advance

1. Do a practical to reset BIOS

Ans: done.

2. Do a practical to remove cmos.

Ans: done.

Topic: Laptop & storage

✘ Assignment Level Basic

1. What is laptop?

Ans: a battery- or AC-powered personal computer (PC) smaller than a briefcase

2. Why laptop is used widely now a days?

Ans: because laptop **portability and battery** make productivity possible nearly anywhere

✘ Assignment Level Intermediate

1. Describe the working process of laptop?

Ans: 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 with a processor and operating system into a smaller device.

2. What is storage?

Ans: storage the keeping of things until they are needed; the place where they are kept.

3. List out the types of storage.

✘ Assignment Level Advance

1. Do a practical to identify types of storage.

Ans: done

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

Ans: done

3. Do a practical to install the storage devices.

Ans: done

Topic: Printer

✘ Assignment Level Basic

1. What is printer?

Ans: printer is a electronic device that covert text, image, data digital into physical pages.

2. Why is printer needed?

Ans: we need printer for our office work and personal uce.

✘ Assignment Level Intermediate

1. Describe the working process of printer.

Ans: The printer's laser projects your print onto a drum. A drum then uses static electricity to attract the dry toner to the drum's cylinder. The drum then rolls the toner onto the paper to create your print. The toner powder is melted and pressed onto the paper with heat from the fuser as it goes through a set of rollers.

2. What are the types of printer.

Ans: laser printer, dot matrix, line printer, pocket printer, inkjet printer, etc.

✘ Assignment Level Advance

3. Do a practical to install the printer

Ans: done

4. Do a practical to Troubleshoot the improper printing.

Ans: done

Topic: Storage devices

✘ Assignment Level Basic

1. What is storage device?

Ans: storage device a hardware which store data in digital forms.

2. Why we need storage device

Ans: to store data digitalty.

✘ Assignment Level Intermediate

1. List out the types of storage devices.

Ans: SSD,HDD,Pendrive,CD,DVD,Memory card, etc.

2. Describe the working process of storage devices.

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

✘ Assignment Level Advance

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

Ans: done.

Topic: ATA

✘ Assignment Level Intermediate

1. What is ATA?

Ans: a standard physical interface for connecting storage devices within a computer.

• Assignment Level intermediate:

1. Describe working of ATA.

Ans: allows hard disks and CD-ROMs to be internally connected to the motherboard and perform basic input/output functions.

• Assignment level Advanced:

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

Ans: done.

Topic: SATA

✘ Assignment Level Basic

1. What is SATA?

Ans: SATA is a connector that allows pc to connect HDD or SSD to direct motherboard.

✘ Assignment Level Advance

1. Describe the working of SATA.

Ans: sata is a command and transport protocol that defines how data is transferred between a computer's motherboard and mass storage devices.

2. Do a practical to identify sata.

Ans: done

3. Do a practical to install SATA.

Ans: done

4. Where does SATA is used.

Ans: It used for connect ssd and hdd.

Topic: SCSI

✘ Assignment Basic

1. What is SCSI?

Ans: scsi is a type of hard drive that allows to install hdd.

2. Why SCSI needed?

Ans: to boost performance and fast data transfer.

✘ Assignment level Intermediate:

1. What is the rpm of SCSI?

Ans: RPM measures how many revolutions a computer's hard drive platter makes in a single minute.

2. Do a Practical to install scsi.

Ans: done

Topic: Laptop

- **Assignment Level Basic:**

1. What is laptop?

Ans: a battery- or AC-powered personal computer (PC) smaller than a briefcase.

2. What are the types of laptop?

Ans: macbook, windows, chromebook, etc.

3. Different names of laptop.

Ans: dell, hp, asus, aser, apple, vivo, xioami, etc.

- **Assignment level Intermediate:**

1. What are the parts of laptop?

Ans: battery, ram, ssd, hdd, cmos, fan, processor, board, ports, etc.

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

Ans: done

- **Assignment level Advance.**

1. Do a practical to disassemble the laptop.

Ans: done

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

Ans: done

TOPIC: PRINTER

- **ASSIGNMENT LEVEL BASIC:**

1. WHAT IS PRINTER?

2. IS IT A INPUT DEVICE OR OUTPUT DEVICE?

- **Assignment level intermediate:**

1. Describe the types of printer.

Ans: printer is a electronic device that covert text, image, data digital into physical pages.

2. Describe inkjet printer.

Ans: inkjet printer is a computer peripheral that produces hard copies of a text document or photo by spraying droplets of ink onto paper

- **Assignment level Advanced:**

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

Ans: done

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

Ans: done.

Module 2 {Installation and Maintenance of Hardware and Its components}

Topic: User Management

- ✘ **Assignment Level Basic**

1. What is user management?

2. Why is user management needed?

- **Assignment level intermediate:**

1. Where can we access the user management?

2. What are the features of user management?

- **Assignment level Advance:**

1. Do a practical to create a user from user management.

2. Do a practical to change the password of the administrator from the user management tool.