Assignments (Module-1)

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1. What is input device?
   - Which can we use for input
   - Example: - Keyboard, Mouse

2. What are output devices?
   - Monitor, speaker

3. What is CPU?
   - Central Processing unit
   - They control input-output devices

4. What are the types of CPU?
   - single-core
   - dual-core
   - Quad-core
   - Hexa-core
   - Octa-core
   - Deca-core

5. What do we need to keep the CPU Healthy?
   - Maintaining to overheating they tries to cool the system’

6. What is memory?
   - Memory just like a human brain
   - They stored the input and output both devices.

7. What are the types of memory?
   - sensory memory
   - short-term memory
   - working memory
   - long-term memory.

8. What is bios
    - Basic input-output device
    - Check whether the system works properly or not

9. Describe the working process of BIOS
    - BIOS identifies, configures, tests, and connects computer hardware to the OS immediately after a computer is turned on. The combination of these steps is called the boot process. These tasks are each carried out by BIOS' four main functions:- Power-on self-test (POST), Bootstrap Loader, Bios Driver, Bios Or CMOS setup

10. What is CMOS?
    - Complementary Metal-Oxide Semiconductor (CMOS)
    - CMOS, or Complementary Metal-Oxide Semiconductor, is a battery-powered semiconductor chip found on the motherboard of a computer. It stores essential system information, such as the time, date, and hardware settings.

11. What is motherboard?
    - The motherboard, also known as the system board and mainboard, is one of the most essential parts of a computer system.
    - The motherboard is the main printed circuit board (PCB) in a computer. It serves to connect all of the parts of a computer together. The CPU, memory, hard drives, optical drives, video card, sound card, and other ports and expansion cards all connect to the motherboard directly or via cables.

12. Describe types of motherboards.
    - - AT Motherboard
    - - ATX Motherboard
    - - Micro ATX Motherboard
    - - ITX Motherboard
    - AT Motherboard:- Advanced Technology.
        - The Full AT is a motherboard form factor introduced by IBM in August 1984 and was widely used in the 1980s.
        - This motherboard has been reliable, spanning from the Pentium p5 to the introduction of the Pentium 2.
    - ATX Motherboard:- ATX stands for Advanced Technology eXtended.
        - First Released on July of 1995 by intel

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- Micro ATX Motherboard:- Micro Advanced Technology eXtended
  - First Released on December by intel

- ITX Motherboard:- Information Technology eXtended
  - Types Of ITX Motherboard
    - Mini-ITX
    - Nano-ITX
    - Pico-ITX
    - Mobile-ITX

13. What is system bus

- The system bus is used to connect the main components of the computer.
- Generally, there are 70-100 parallel lines in the system bus.
- It is divided into three main categories:

  1) Control Bus

  2) Address Bus

  3) Data Bus

14. What is chipset and types of chipset?

- A chipset includes a northbridge chip and a southbridge chip. The main components on a present-day motherboard are the chipset, CPU, memory, clock, buses, and BIOS, and the layout is given below: The northbridge chip is located at the top, or northern part of the motherboard and directly connected to the CPU.

15. Describe how the Northbridge chipset works what is SMPS?

- The northbridge handles the high-speed communication between the CPU, memory, and graphics card, while the southbridge manages the slower input/output operations and connects devices like hard drives, universal serial bus (USB) devices, and audio interfaces.

16. How to check smps?

- The working of SMPS can be tested by following steps. Connect the SMPS to 230VAC and connect the appropriate load to check to working of SMPS. Measure the output voltage of SMPS by a multimeter(Indicate the output voltage 12V or 24V depends on the voltage rating of SMPS).

17. List out the types of storage devices.

- i) Primary Storage
- ii) Secondary Storage
- iii) Tertiary Storage

18. Describe the working process of storage devices.

- i) Primary Storage:-
- i) ROM (Read Only Memory)
- ii) RAM (Random Access Memory)
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- SRAM(Static Ram)
- DRAM (Dynamic RAM)
  - Faster Then DRAM
    Slower Then SRAM
- It was Coastly
- It was Chipper then SRAM
- three layers of SRAM
- Three type's of DRAM
- i) L1:- in the CPU
- i) SIMM(Single In-line Memory Module)
- ii) L2 :- backside of CPU
  ii) RIMM(Rambus In-line Memory Module)
- iii)L3 :- On the MotherBoard
  iii) DIMM(Dual In-line Memory Module)
  i) DDR I :- noatch in right side of Microch
  ii) DDR II :- noatch in Middle side of Microchip
  iii) DDR III :- noatch in Left side of Microchip
  iv) DDR IV :- noatch in Left-Middle side of Microchip
  v) DDR V :-
- Buffer Ram
- Un-Buffer Ram
- ECC RAM(Error Checking Correction) :- 9 Chip :-
- Non-ECC RAM(Non-Error Checking Correction) :- 8chip :-

- volatile memory
- Non-volatile memory

19. What is SATA?
    - In SATA Hard disk To Supply the Powerchip Connector is used. And if there is no chip connecter is available then 4 pin Molex Connector Should be joined with the Chip Converted

20. 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).

21. What is SCSI storage and type of scsi?
    - Small Computer System Interface (SCSI, /ˈskʌzi/ SKUZ-ee) is a set of standards for physically connecting and transferring data between computers and peripheral devices, best known for its use with storage devices such as hard disk drives.

22. What is I/O ports?
    - An input/output (I/O) port, also known as an I/O interface, is a connection point on a computer or electronic device that allows data to be transferred between the device and external devices or peripherals. It serves as a channel for communication, enabling information to flow into and out of the device.

23. List out the I/O ports available
    - Serial.
    - Parallel and Universal Serial Bus.
    - PS-2 Port.
    - Infrared Port.
    - Bluetooth Port.
    - Firewire.

24. What is Boot Process?

- Booting is basically the process of starting the computer. When the CPU is first switched on it has nothing inside the Memory. In order to start the Computer, load the Operating System into the Main Memory and then Computer is ready to take commands from the User.

25. List out the types of display.
    - Liquid-crystal display (LCD)
    - Light-emitting diode (LED)
    - backlit LCD.
    - Thin-film transistor (TFT) LCD.
    - Quantum dot (QLED) display.

26. What is printer? And the type of printer
    - It can be connected directly to the computer or indirectly via a network. Printers are classified as impact printers (in which the print medium is physically struck) and non-impact printers. Most impact printers are dot-matrix printers, which have a number of pins on the print head that emerge to form a character

27. What are the parts of laptop?
    - display screen,
    - keyboard,
    - base panel,
    - top panel,
    - Cooling Fan,
    - RAM,
    - hard disk,
    - palm rest assembly,
    - battery,
    - hinges,
    - speaker,
    - optical drive,
    - antenna etc.

28. 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.