



SNS COLLEGE OF TECHNOLOGY

Coimbatore-35
An Autonomous Institution

Accredited by NBA – AICTE and Accredited by NAAC – UGC with 'A+' Grade
Approved by AICTE, New Delhi & Affiliated to Anna University, Chennai



DEPARTMENT OF INFORMATION TECHNOLOGY

PROGRAMMING FOR PROBLEM SOLVING

I YEAR / I SEMESTER

UNIT 1 – INTRODUCTION OF PROBLEM SOLVING TECHNIQUES

TOPIC 2 – COMPUTER HARDWARE



Computer Hardware

➤ Introduction to Computer Hardware

A computer is an electronic device, operating under the control of instructions stored in its own memory that can accept data (input), process the data according to specified rules, produce information (output), and store the information for future use.



HARWARE EXAMPLES

- Hardware represents the physical and tangible components of a computer, i.e. the components that can be seen and touched.
- Examples of Hardware are the following –
- Input devices – keyboard, mouse, etc.
- Output devices – printer, monitor, etc.
- Secondary storage devices – Hard disk, CD, DVD, etc.
- Internal components – CPU, motherboard, RAM, etc.



HARDWARE PARTS





Examples of hardware devices

Scanner	Cabinet
Webcam	Optical drives
CPU	DVD reader
Power supply	Fan
Keyboard	Microprocessor
USB sticks	Speakers
Mouse	Modem
HDD	Printing machine
Soundboard	Pendrive
Video card	RAM



INTERNAL COMPONENTS OF COMPUTER



- Internal components collectively process or store the instructions delivered by the program or operating system (OS). These include the following:
- Motherboard** This is a printed circuit board that holds the central processing unit (CPU) and other essential internal hardware and functions as the central hub that all other hardware components run through.
- CPU.** The CPU is the brain of the computer that processes and executes digital instructions from various programs; its clock speed determines the computer's performance and efficiency in processing data.



INTERNAL COMPONENTS OF COMPUTER



- **RAM** RAM -- or dynamic RAM -- is temporary memory storage that makes information immediately accessible to programs; RAM is volatile memory, so stored data is cleared when the computer powers off.
- **Hard drive.** Hard disk drives are physical storage devices that store both permanent and temporary data in different formats, including programs, OSes, device files, photos, etc.
- **Solid-state drive (SSD).** SSDs are solid-state storage devices based on NAND flash memory technology; SSDs are non-volatile, so they can safely store data even when the computer is powered down.



INTERNAL COMPONENTS OF COMPUTER



- **Optical drive**. Optical drives typically reside in an on-device drive bay; they enable the computer to read and interact with nonmagnetic external media, such as compact disc read-only memory or digital video discs.
- **Heat sink**. This is a passive piece of hardware that draws heat away from components to regulate/reduce their temperature to help ensure they continue to function properly. Typically, a heat sink is installed directly atop the CPU, which produces the most heat among internal components.



THANK YOU