

SUBJECT: MICROPROCESSOR LAB (MPL)	
NAME:	
CLASS: SE COMP	ROLL NO.:
SEMESTER: SEM-II	YEAR: 2021-22
DATE OF PERFORMANCE:	DATE OF SUBMISSION:
EXAMINED: Prof. G. B. Aochar	

Assignment No-10

Title:- Study Assignment:

Assignment Name:-

Motherboards are complex. Break them down, component by component, and Understand how they work. Choosing a motherboard is a hugely important part of building a PC. Study- Block diagram, Processor Socket, Expansion Slots, SATA, RAM, Form Factor, BIOS, Internal Connectors, External Ports, Peripherals and Data Transfer, Display, Audio

Objective-

- To understand the Form Factor of Motherboard
- To understand different components of Motherboard

Outcome-

- Students will be able to identify components of Motherboard
- Students will be able to distinguished south bridge and north bridge and its working

Prerequisite -

Computer Fundamental.

Hardware Requirement-

Desktop PC, Motherboard, SMPS

Introduction:-

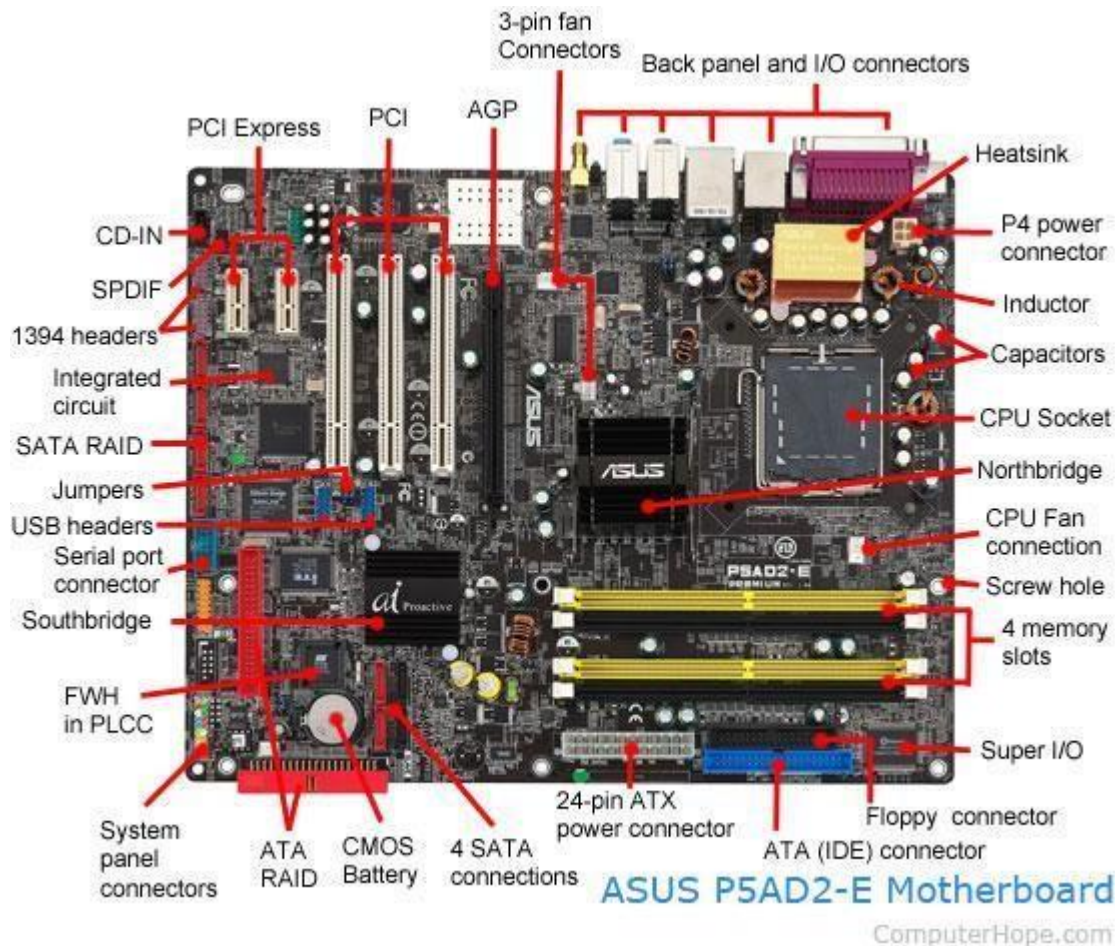
THEORY:

Motherboard overview

A motherboard provides connectivity between the hardware components of a computer, like the processor (CPU), memory (RAM), hard drive, and video card. There are multiple types of motherboards, designed to fit different types and sizes of computers.

Each type of motherboard is designed to work with specific types of processors and memory, so they don't work with every processor and type of memory. However, hard drives are mostly universal and work with the majority of motherboards, regardless of the type or brand.

Below is a picture of the ASUS P5AD2-E motherboard with labels next to each of its major components. Clicking the image directs you to a larger and more detailed version.



Where is the motherboard located?

A computer motherboard is located inside the computer case and is where most of the parts and computer peripherals connect. With tower computers, the motherboard is on the left or right side of the tower and is the biggest circuit board.

Motherboard components

Below are links to pages with more details for each of the motherboard components mentioned in the previous section. The links are listed in clockwise order starting from the top-left corner of the image.

- Expansion slots ([PCI Express](#), PCI, and AGP)
- 3-pin case fan connectors
- Back pane connectors
- Heat sink
- 4-pin (P4) power connector

- Inductor
- Capacitor
- CPU socket
- Northbridge
- Screw hole
- Memory slot
- Super I/O
- ATA / IDE disk drive primary connection
- 24-pin ATX power supply connector
- ~~Serial ATA connectors~~
- Coin cell battery (CMOS backup battery)
- RAID
- System panel connectors
- FWH
- Southbridge
- Serial port connector
- USB headers
- Jumpers
- Integrated circuit
- 1394 headers
- SPDIF
- CD-IN

Older motherboard components

The following list contains links to components that are not shown in the picture above or were part of older computer motherboards.

- BIOS
- Bus
- Cache memory
- Chipset
- Diode
- Dip switches

- Electrolytic
- Floppy connection

Questions-

1. List the different components of Motherboard