



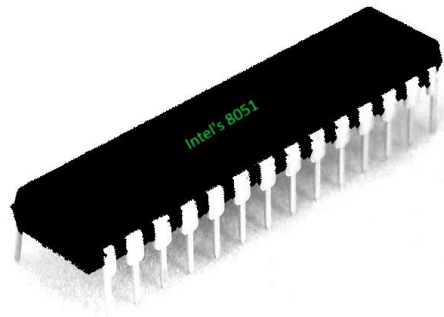
SNS COLLEGE OF ENGINEERING

(Autonomous)

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING



19SB405 – MICROPROCESSORS AND ADVANCED MICROCONTROLLERS



Guess Today's Topic????





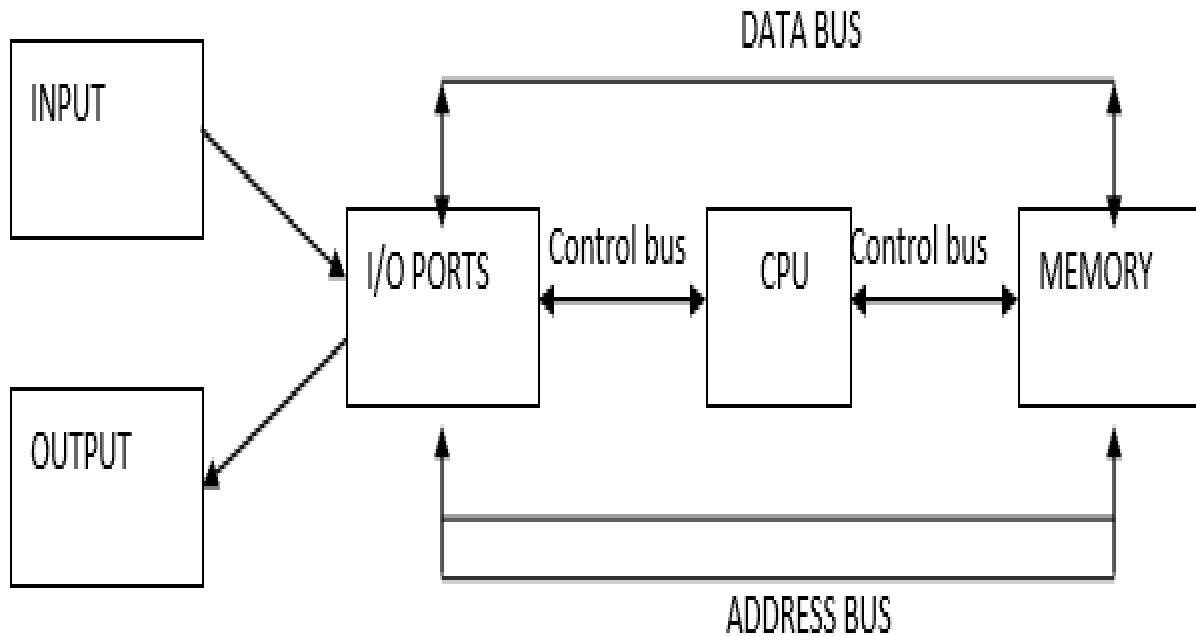
What is Microprocessor?



Processor means a device that processes numbers, specifically binary numbers, 0's and 1's.

Microprocessor is a multipurpose, programmable device that accepts digital data as input, processes it according to instructions stored in its memory, and provides results as output.







The 8085 Architecture



The 8085 is an **8-bit general purpose** microprocessor that can address **64K Byte of memory**.

It has **40 pins** and uses +5V for power. It can run at a **maximum frequency of 3 MHz**.

The pins on the chip can be grouped into 6 groups:

Address Bus.

Data Bus.

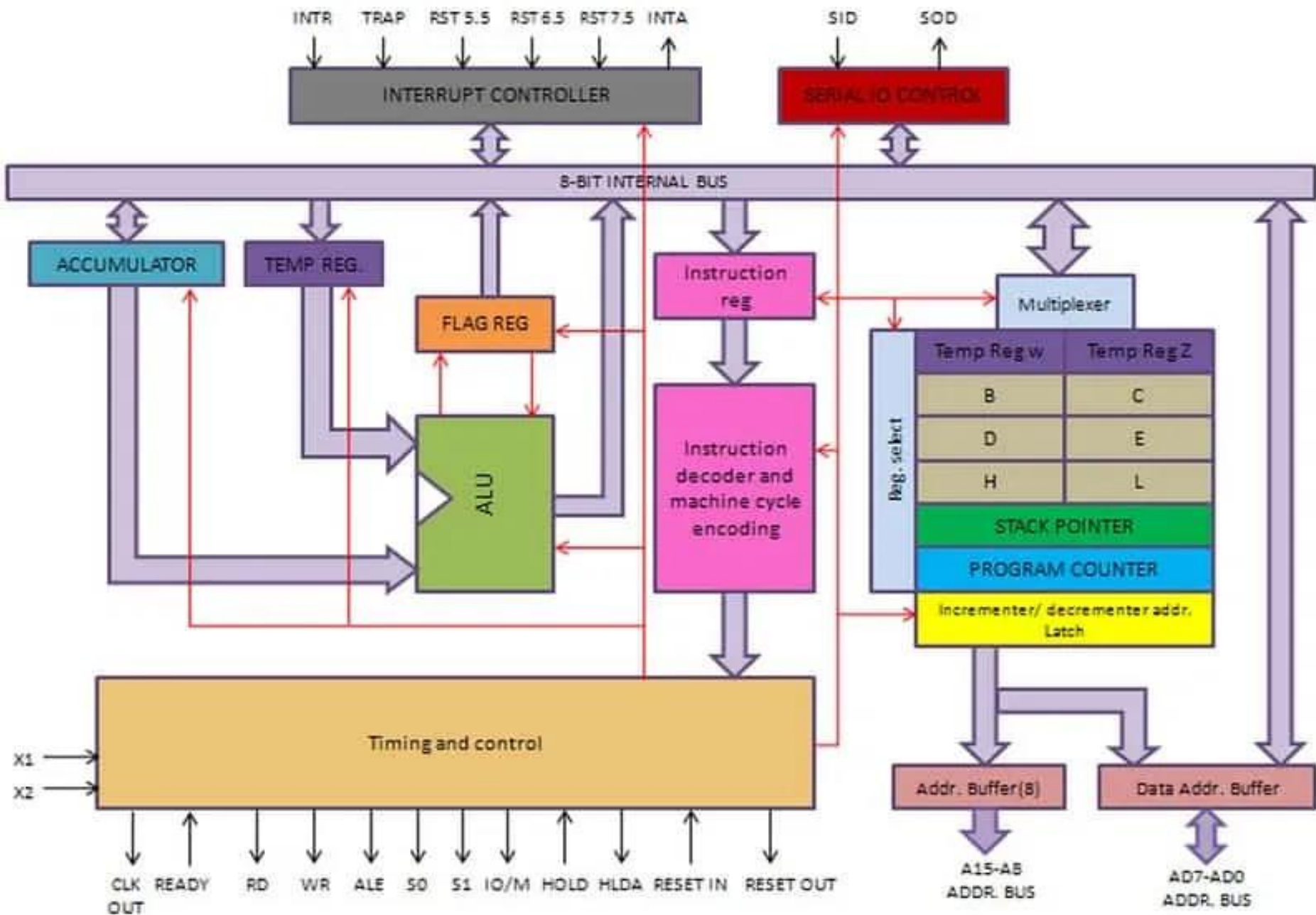
Control and Status Signals.

Power supply and frequency.

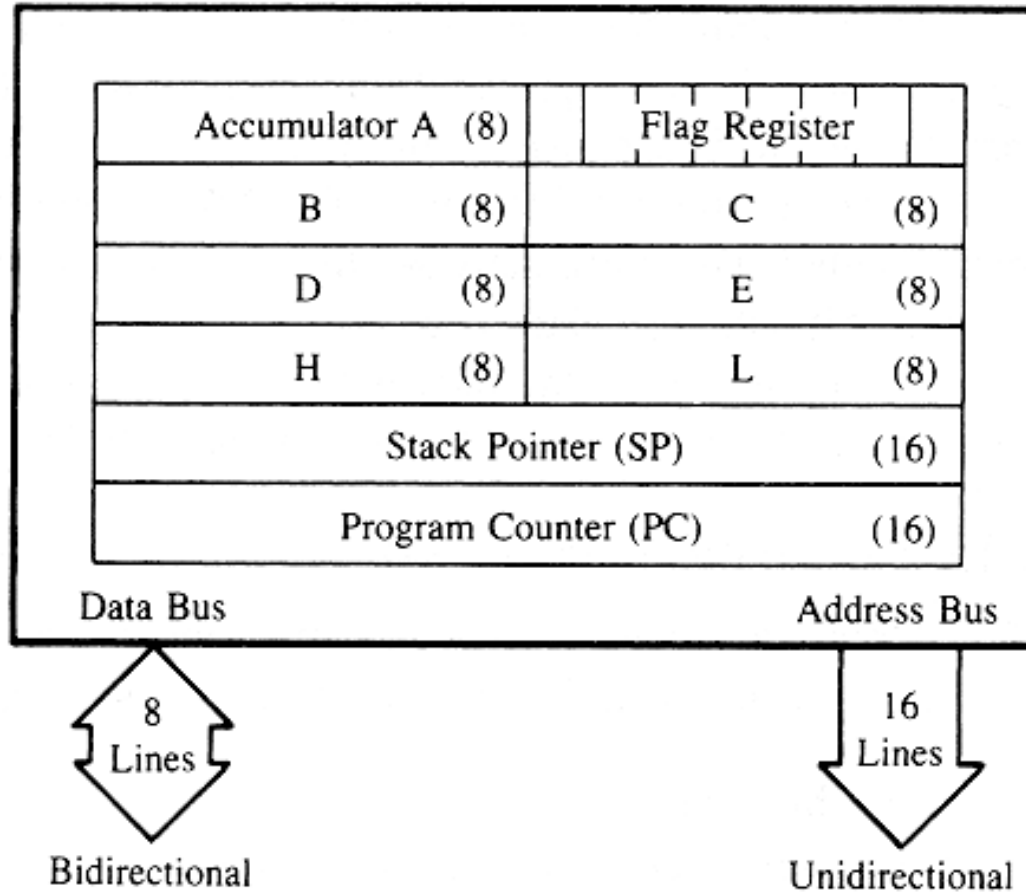
Externally Initiated Signals.

Serial I/O ports.





Register Organisation



Flag Registers

- **Flag Register:** It is a group of 5 flip flops used to know status of various operations done and is given by:



- **S:** Sign flag is set when result of an operation is negative.
- **Z:** Zero flag is set when result of an operation is 0.
- **AC:** Auxiliary carry flag is set when there is a carry out of lower nibble or lower four bits of the operation.
- **CY:** Carry flag is set when there is carry generated by an operation.
- **P:** Parity flag is set when result contains even number of 1's.
Rest(X) are don't care flip flops.
- 8085 uses these flags in decision-making process.





1. In 8085, 16-bit address bus, which can address upto?
16KB, B. 32KB, C. 64KB, D. 128KB
2. There are _____ general purpose registers in 8085 processor
A.5 B. 6 C. 7 D. 8
3. What is true about Program counter?
 - A. It is an 8-bit register, which holds the temporary data of arithmetic and logical operations.
 - B. When an instruction is fetched from memory then it is stored in the program counter
 - C. It provides timing and control signal to the microprocessor
 - D. It is a 16-bit register used to store the memory address location of the next instruction to be executed.





THANK YOU

