

MicroprocessorSec → 1

Q1) Difference b/w 8085 & 8086 μ P. Draw the pin diagram of 8085 microprocessor.

501P

	8085 μ P	8086 μ P
1.	8085 is an 8-bit microprocessor.	8086 is a 16-bit microprocessor.
2.	8085 has 16 address lines.	8086 has 20 address lines.
3.	8085 has only five flags.	8086 has nine flags.
4.	It does not support Pipelining.	It support pipelining.
5.	8085 operates on clock cycle with 50% duty cycle.	8086 operates on clock cycle with 33% duty cycle.

1. Power supply & frequency signals:

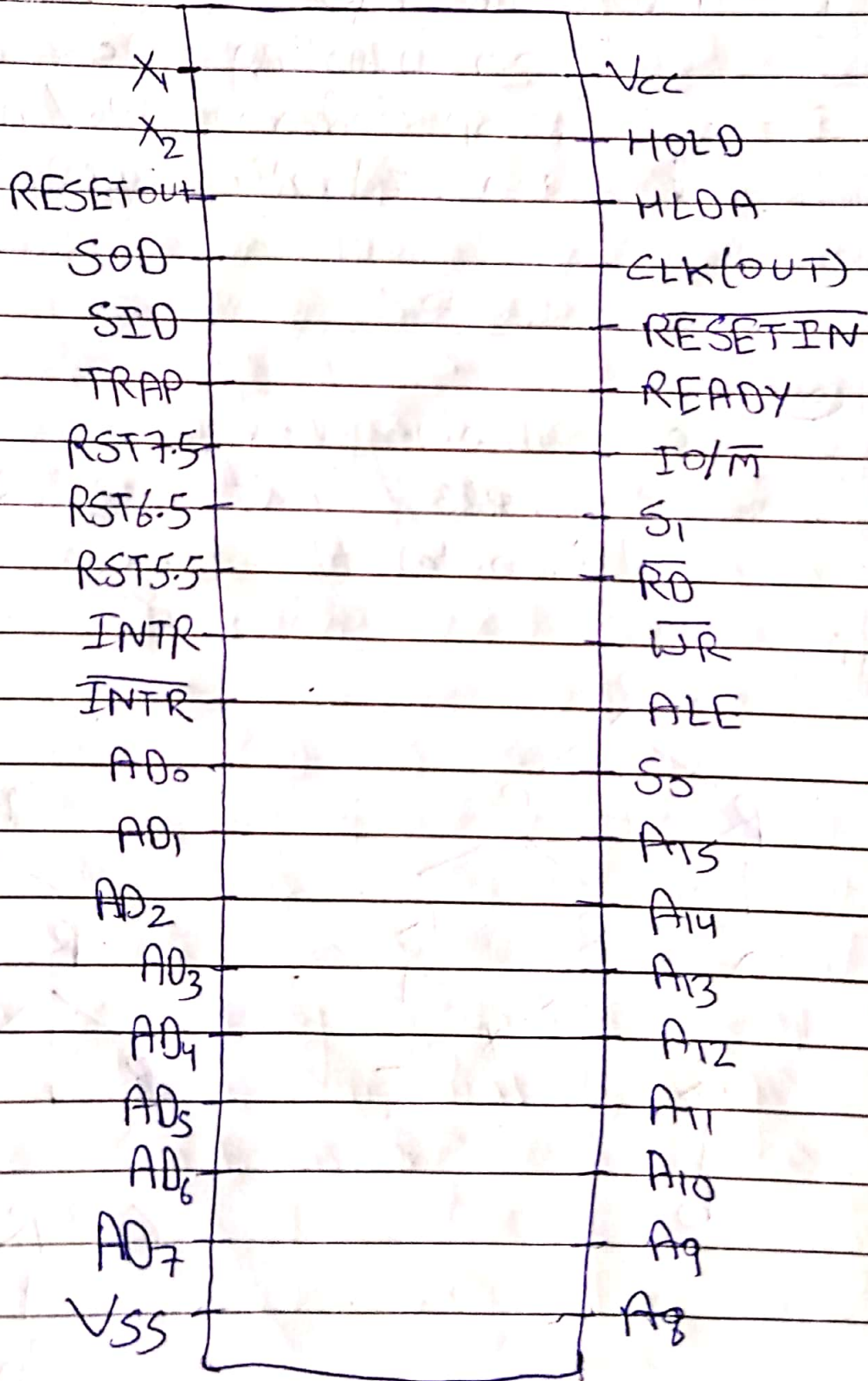
a. V_{CC} : It requires a single +5V supply.

b. V_{SS} : Ground reference.

c. X_1 & X_2 : A tuned circuit like LC, RC or crystal is connected at these two pins. ~~The~~

d. CLK OUT: This signal is used as a system clock for other devices. Its frequency is half the oscillator frequency.

Pin diagram for 8085 μ p



2. Data bus & address bus:

(a) A_{0} to A_{7} : The 8-bit data bus (D_{0} - D_{7}) is multiplexed with the lower half (A_{0} - A_{7}) of the 16-bit address bus. During first part of the machine cycle (T_{1}).

(b) A_{8} to A_{15} : The upper half of the 16-bit address appears on the address lines A_{8} to A_{15} .

3. Control & status signals:

a. ALE (Address latch enable)

(i) This signal is used primarily to latch the low order address from the multiplexed bus & generate a separate set of eight address line, A_{7} - A_{0} .

b. \overline{RD} & \overline{WR}

(i) A low on \overline{RD} indicates that the data must be read from the selected memory location on I/O port via data bus.

c. $I/O/\overline{M}$, S_{0} & S_{1}

$I/O/\overline{M}$ indicates whether I/O operation or memory operation is being carried out. S_{1} & S_{0} indicate the type of machine cycle in progress.

d. READY:

It is used by the microprocessor to sense whether a peripheral is ready or not for data transfer.