DCO - LAB

Assignment - 1

1)

INTERRUPT
SIGNALS

SID   SOD

INTERRUPT CONTROL	SERIAL I/O CONTROL

8-BIT INTERNAL DATA BUS

ACCUMU-LATOR	TEMPORARY REGISTER	STATUS FLAGS	INSTRUCTION REGISTER (IR)	B	C
				D	E
				H	L

ARITHMETIC & LOGIC UNIT (ALU)	INSTRUCTION DECODER & M/C CYCLE ENCODING	STACK POINTER (SP)
		PROGRAM COUNTER (PC)
		INCREMENTER/ DECREMENTER
		ADDRESS LATCH

X_1 ⟶

X_2 ⟶

TIMING & CONTROL UNIT	ADDRESS BUFFER	DATA/ADDRESS BUFFER

CONTROL SIGNALS
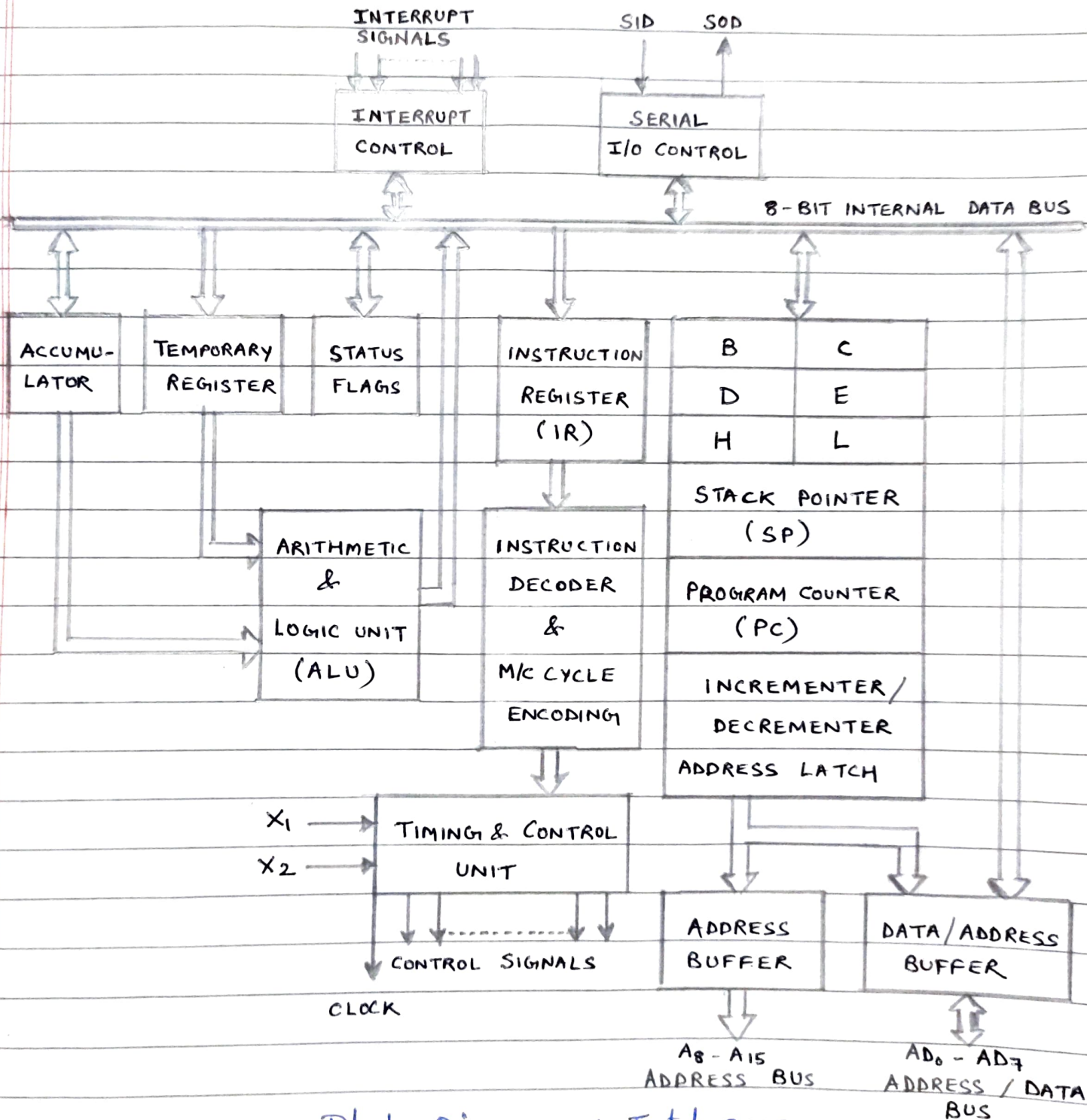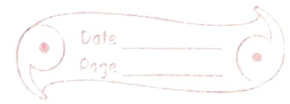
CLOCK

$A_8 - A_{15}$
ADDRESS BUS

$AD_0 - AD_7$
ADDRESS / DATA BUS

Fig. Block Diagram of Intel 8085

The Architecture of Microprocessor 8085

2) Difference between HDD and SSD.

Ans-	HDD	SSD
	• HDD stands for Hard Disk Drive	• SSD stands for Solid State Drive
	• HDD contains moving mechanical parts, like the arm.	• SSD doesn't contain, mechanical parts, only electronic parts like ICs
	• It has higher latency.	• It has lower latency
	• It has longer R/W Time.	• It has shorter R/W Time.
	• It has fragmentation	• It don't has fragmentation
	• It is heavier in weight	• It is lighter in weight
	• It is larger in size.	• It is more compact in size.
	• It is cheaper per unit storage	• It is costlier per unit storage.
	• Data transfer is sequential.	• Data transfer is Random Access
	• It is older and more traditional	• It is newer to use.
	• It supports fewer I/O operations per second.	• It supports more I/O operations per second.
	• HDD is less reliable due to possibility of mechanical failure like head crash and susciplbbity to strong magnets.	• It is more reliable.
	• It can produce noise due to mechanical movement.	• It does not produces noise