2.4 CONTROL INSTRUCTIONS

Opcode Operand	Description
No operation	
NOP none	No operation is performed. The instruction is fetched and decoded. However no operation is executed. Example: NOP
Halt and enter wait state	
HLT none	The CPU finishes executing the current instruction and halts any further execution. An interrupt or reset is necessary to exit from the halt state. Example: HLT
Disable interrupts	
DI none	The interrupt enable flip-flop is reset and all the interrupts except the TRAP are disabled. No flags are affected. Example: DI
Enable interrupts	
EI none	The interrupt enable flip-flop is set and all interrupts are enabled. No flags are affected. After a system reset or the acknowledgement of an interrupt, the interrupt enable flip- flop is reset, thus disabling the interrupts. This instruction is necessary to reenable the interrupts (except TRAP). Example: EI
Read interrupt mask	
RIM none	This is a multipurpose instruction used to read the status of interrupts 7.5, 6.5, 5.5 and read serial data input bit. The instruction loads eight bits in the accumulator with the following interpretations. Example: RIM
	D_7 D_6 D_5 D_4 D_3 D_2 D_1 D_0
	Serial input data bit $\begin{array}{c ccccccccccccccccccccccccccccccccccc$

Set interrupt mask SIM none

This is a multipurpose instruction and used to implement the 8085 interrupts 7.5, 6.5, 5.5, and serial data output. The instruction interprets the accumulator contents as follows. Example: SIM