

;A table contains ten 8-bit numbers from memory location 9500H; write a program to arrange in ascending order.

MVI B, 09H ;Counter = N - 1

L1: LXI H, 9500H

MOV C,B

L2: MOV A, M

INX H

CMP M ;Compare number with next number

JC L3 ;If less, don't interchange

JZ L3 ;If equal, don't interchange

MOV D, M

MOV M, A

DCX H

MOV M, D

INX H ;Interchange two numbers

L3: DCR C ;Decrement counter 2

JNZ L2 ;If not zero, repeat

DCR B ;Decrement counter 1

JNZ L1

HLT

;A table contains ten 8-bit numbers from memory location 9500H; write a program to arrange in descending order.

MVI B, 09H ;Counter = N - 1

L1: LXI H, 9500H

MOV C,B

L2: MOV A, M

INX H
CMP M ;Compare number with next number
JNC L3 ;If less, don't interchange
JZ L3 ;If equal, don't interchange

MOV D, M
MOV M, A
DCX H
MOV M, D
INX H ;Interchange two numbers

L3: DCR C ;Decrement counter 2
JNZ L2 ;If not zero, repeat
DCR B ;Decrement counter 1
JNZ L1
HLT