

Machine Exercise 9(MP)

Program -

Education Experiment 9.

Find largest among an array of 10 numbers.

Memory Address	Opcode	Mnemonic	Operands	Comments
2000	21	LXI	H, 2500H H, 2500	Address of count in H-L pair reg
2001	00			
2002	25			
2003	46	MOV	C, M	Move count in reg C
2004	23	INX	H	Increment H-L reg
2005	7E	MOV	A, M	Move 1st no in accumulator
2006	0D	DCR	C	Decrement counter
(LOOP) 2007	23 23	INX	H	Increment H-L reg
2008	BE	CMP	M	Compare the 2 nos
2009	D2	JNC	AHEAD	If no in the accumulator is large than no
200A	0D			jump to label
200B	20			jump to label AHEAD
200C	7E	MOV	A, M	Get large no. in accumulator
(AHEAD) 200D	0D	DCR	C	Decrement the counter
200E	C2	JNZ	LOOP(2007)	Jump to 2007/loop
200F	07			if the counter is not zero
2010	20			
2011	82	STA	3500H	Store the result at 3500H
2012	00			
2013	35			
2014	76	HLT		Halt

Output

VMM Education

O/P

2500H	=	010H
2501	=	08H
2502	=	02H
2503	=	01H
2504	=	06H
2505	=	09H
2506	=	04H
2507	=	03H
2508	=	05H
2509	=	1FH
250A	=	05H

Result

3500 = 17H