

7. SORTING THE NUMBERS IN DESCENDING ORDER.

Execution:

Enter the operation code value in the memory location and enter the input value in a separate memory location. Then reset key's pressed. use Go function and give the starting address of the program 0400 and then execute and RESET. Then display the result.

PROGRAM:



ADDRESS	OPCODE	LABEL	MNEMONICS
0400	BE 00 07		MOV SI, 0700H
0403	8B 1C		MOV BX, [SI]
0405	4B		DEC BX
0406	8B 0C	L3:	MOV CX, [SI]
0408	49		DEC CX
0409	BE 02 07		MOV SI, 0702H
040C	8A 04	L2:	MOV AL, [SI]
040E	46		INC SI
040F	3A 04		CMP AL, [SI]
0411	77 06		JNBE L1
0413	86 04		XCHG AL, [SI]

0415:	4E
0416:	88 04
0418:	46
0419:	E2 F1
041B:	4B
041C:	BE 00 07
041F:	75 E5
0421:	F4

L1:

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DEC SI
MOV [SI], AL
INC SI
Loop L2
DEC BX
MOV SI, 0700H
JNE L3
HLT

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RESULT

INPUT

0700 - 05(COUNT)
 DATA START FROM 0702
 0702 - 12
 0703 - 97
 0704 - 41
 0705 - 14
 0706 - AA

OUTPUT

0702 - AA
 0703 - 97
 0704 - 41
 0705 - 14
 0706 - 12

Hence the descending order number is executed.