move the 8-bit AL register to memory content of SI. Loop to location 040C again after incrementing SI. Decrement BX register move the memory location 0700 to SI jump with no carry to 0406. Stop the program.

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	MNEMONCS
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:	76 06		JBE L1
0413:	86 04		XCHG AL,[SI]
0415:	4E		DEC SI
0416:	88 04		MOV [SI], AL
0418:	46		INC SI
0419:	E2 F1	L1:	LOOP L2
041B:	4B		DEC BX
041C:	BE 00 07		MOV SI, 0700H
041F:	75 E5		JNE L3
0421:	F4		HLT

RESULT:

INPUT	OUTPUT
0700 - 05 (NO OF Data)	0702 – 12
DATA START FROM 0702	0703 – 14
0702 – 12	0704 – 41
0703 – 97	0705 – 97
0704 – 41	0706 – AA
0705 – 14	
0706 – AA	

Hence the ascending order number is executed.