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BCD to ASCII conversion using 8051

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Aim: To write assembly program to do BCD to ASCII conversion using 8051.

Program:

Program	Comments
MOV A, r1	Transferring the data from r1 to A
SWAP A	Exchange low order and high order numbers
ANL A, #0FH	Bitwise logical and operation
ADD A, #30H	A=30+A
MOV r2, A	Transferring the from data A to r2
MOV A, r1	Transferring the from data r1 to A
ANL A, #0FH	Bitwise logical and operation
ADD A, #30H	A=30+A
MOV r3, A	Transferring the data from A to r3
HERE: SJMP HERE	Infinite loop

Input :

[illegible]

Output :

	0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F
00	00	45	34	35	00	00	00	00	00	00	00	00	00	00	00	00
10	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00
20	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00
30	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00
40	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00
50	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00
60	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00
70	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00

Result:

Thus, the assembly program for BCD to ASCII conversion is written and executed.