

**PROCEDURE:**

1. Enter the program from location 2000 onward using EXMEM Command. Also enter the data at locations 2100 and 2101.
2. Execute the program from 2000 using GO key and examine the result at location 2102.  
(Press G; enter the starting address of the program then press shift and then 4(\$))

**PROGRAM:**

ADDRESS	MACHINE CODE	LABEL	MNEMONICS		COMMENTS
			OPCODE	OPRAND	
2000 H	3A 01 22		LDA	2201H	Get the subtrahend in B-reg. Get 10's compliment of subtrahend.
2003 H	47		MOV	B,A	
2004 H	3E 99		MVI	A 99 H	Save 10's compliment in B Get the minuend in A-reg.
2006 H	90		SUB	B	
2007 H	3C		INR	A	Get the BCD sum of minuend and 10,s compliment of subtrahend.
2008 H	47		MOV	B,A	
2009 H	3A 00 22		LDA	2200 H	Store the result in memory. Stop the program
200C H	80		ADD	B	
200D H	27		DAA		
200E H	32 00 23		STA	2300 H	
2011 H	76		HLT		

**EXAMPLE:****Address**

2200 H

2201 H

**Result:**

2300 H

**Data**

32 (Minuend)

12 (Subtrahend)

20 (Difference)

**RESULT:        32-12=20**

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