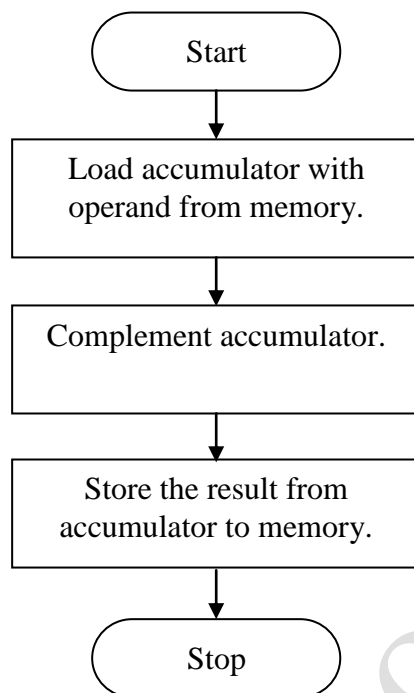


**Program 1:** 1's complement of an 8-bit number.

**Flowchart:**



**Program:**

Address	Mnemonics	Operand	Opcode	Remarks
2000	LDA	3000H	3A	Load H-L pair with data from 3000H.
2001			00	Lower-order of 3000H.
2002			30	Higher-order of 3000H.
2003	CMA		2F	Complement accumulator.
2004	STA	3001H	32	Store the result at memory location 3001H.
2005			01	Lower-order of 3001H.
2006			30	Higher-order of 3001H.
2007	HLT		76	Halt.

**Explanation:**

- This program finds the 1's complement of an 8-bit number stored in memory location 3000H.
- Let us assume that the operand stored at memory location 3000H is 85H.
- The operand is moved to accumulator from memory location 3000H.
- Then, its complement is found by using CMA instruction.
- The result is stored at memory location 3001H.

**Output:**

**Before Execution:**

3000H: 85H

**After Execution:**

3001H: 7AH

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