

EXPERIMENT NO. 9

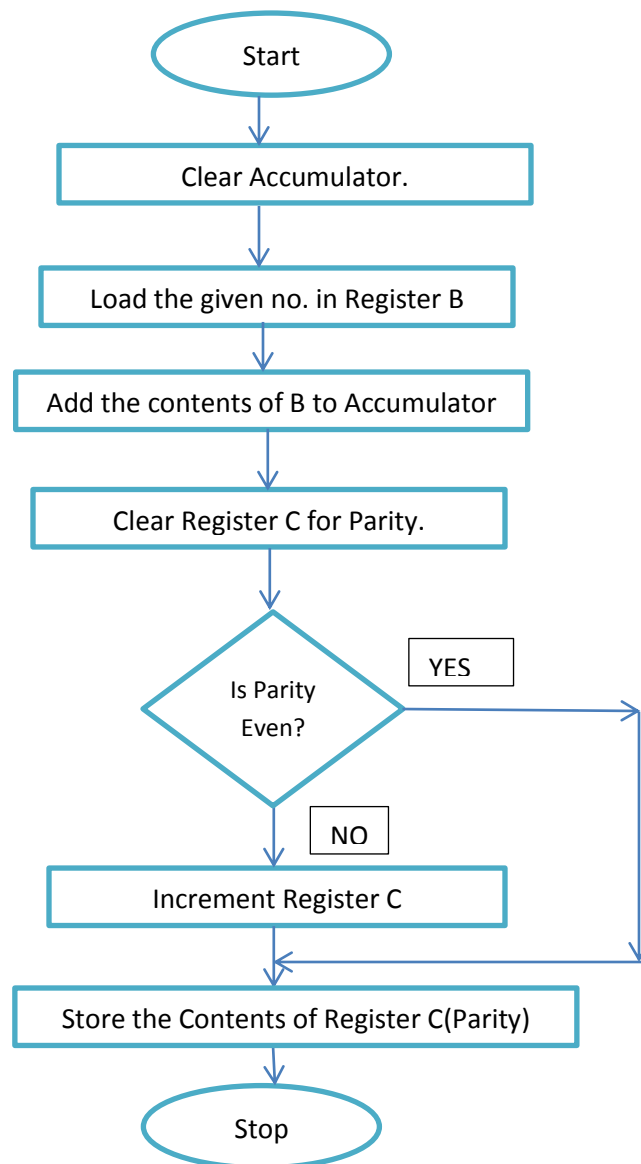
AIM: To check the parity of a given number.

APPARATUS REQUIRED: 8085 Microprocessor Kit.

ALGORITHM:

1. Clear Accumulator.
2. Load the number, whose parity is to be checked, in Register B.
3. Add the no. in Register B to the Accumulator.
4. Addition being an arithmetic operation affects the flag register.
5. Check the Parity and store it at some address.
6. End of Program.

FLOW CHART:



PROGRAM:

Memory Address	Mnemonics	Hex Codes	Remarks
2000	XRA, A	AF	Clear register A
2001	MVI B, 32H	06	Load in Reg. B the no. whose parity is to be checked(32)
2002		32	
2003	MVI C,00	0E	Initialize Reg. C
2004		00	
2005	ADD B	80	Perform an arithmetic operation so that the flags are affected
2006	JPE 200AH	E2	Jump if Parity is Even to Address 200AH
2007		0A	
2008		20	
2009	INR C	0C	Increment C if Parity is Even
200A	MOV A, C	79	Move the content of C in Accumulator
200B	STA 2050H	32	Store the result in Address 2050H
200C		50	
200D		20	
200E	HLT	76	End Program

INPUT:

1st set:

number: 32H

OUTPUT:

Parity (2050H): 00H [EVEN]

1st set:

number: 33H

OUTPUT:

Parity (2050H): 01H [ODD]

PRECAUTION:

Make sure that all the machine codes should be as specified in the program.