EXP NO: 17

AIM: To compute one's and two's complement using 8085 processor.

ALGORITHM:

1) Load the base address of the array in a register pair.
2) Move the data from memory location into accumulator.
3) Convert all ones into zeros and zeros into ones.
4) Add 01 to the accumulator content.
5) Store the results of one's and two's complement.

PROGRAM:
```
LDA 3000
CMA
STA 3001
ADI 01
STA 3002
HLT
```

INPUT:

OUTPUT:

RESULT: Thus the program was executed successfully using 8085 processor simulator.

ROTATE LEFT OPERATION

EXP NO: 18

AIM: To compute rotation of given data in left without carry using 8085 processor.

ALGORITHM:

1) Load the base address of the array in HL register pair.
2) Move the data from memory location into accumulator.
3) Shift left the accumulator content for four times.
4) Store the result in the specified location.

PROGRAM:

```
MVI A,02
RLC
RLC
RLC
RLC
STA 2000
HLT
```

INPUT:

OUTPUT:

RESULT: Thus the program was executed successfully using 8085 processor simulator.

ROTATE RIGHT OPERATION

EXP NO: 19

AIM: To compute rotation of given data in right without carry using 8085 processor.

ALGORITHM:

1) Load the base address of the array in HL register pair.

2) Move the data from memory location into accumulator.

3) Shift right the accumulator content for four times left.

4) Store the result in the specified location.

PROGRAM:
```
MVI A,03
RRC
RRC
RRC
RRC
STA 2000
HLT
```


LOGICAL OPERATIONS

EXP NO: 20

AIM: To compute various logical operations using 8085 processor.

ALGORITHM:

1) Load data to accumulator.
2) Load another data in register
3) Perform logical operations like AND, OR and XOR (Use ANA, ORA, XRA) with the accumulator content.
4) Store the result in specified memory location.

PROGRAM:

AND OPERATION:
        MVI A,06
        MVI B,04
        ANA B
        STA 2500
        HLT

OR OPERATION:
        MVI A,07
        MVI B,06
        ORA B
        STA 2000
        HLT

XOR OPERATION:
        MVI A,03
        MVI B,04
        XRA B
        STA 2000
        HLT