

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,08  
XRA B  
STA 2000  
HLT
```

INPUT:

Start

2500

OK

Address (Hex)	Address	Data
09C4	2500	6
09C5	2501	4
09C6	2502	4
09C7	2503	7
09C8	2504	6
09C9	2505	7
09CA	2506	3
09CB	2507	8
09CC	2508	11
09CD	2509	0
09CE	2510	0
09CF	2511	0

OUTPUT:

GNUsim8085 - 8085 Microprocessor Simulator

File Reset Assembler Debug Help

Registers

A	08
BC	08 00
DE	00 00
HL	00 00
PSW	00 00
PC	42 19
SP	FF FF
Int-Reg	00

Flag

S	0
Z	0
AC	0
P	0
C	0

Load me at

```

1  MVI A,06
2  MVI B,04
3  ANA B
4  STA 2502
5  MVI A,07
6  MVI B,06
7  ORA B
8  STA 2505
9  MVI A,03
10 MVI B,08
11 XRA B
12 STA 2508
13 HLT

```

Memory

Start

Address (Hex)	Address	Data
09C4	2500	6
09C5	2501	4
09C6	2502	4
09C7	2503	7
09C8	2504	6
09C9	2505	7
09CA	2506	3
09CB	2507	8
09CC	2508	11
09CD	2509	0
09CE	2510	0
09CF	2511	0

I/O Ports

Memory

Assembler Message

0 Program assembled successfully

Simulator: Idle

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