Experiment 10

Write and execute an assembly language program to count ODD & EVEN numbers in an array of 8 bit n numbers

a) Explain any one logical instruction of 8086 with example

→ i) One logical instruction of 8086 is AND

ii) The AND instruction performs a bitwise AND operation on the destination operand & the source operand, storing the result in the destination operand.

b) Describe the following assembler directives

a) EQU: Equate

Defines a constant symbol with a specified value

for eg :- COUNT EQU 10

b) ENDS: End Segment

Marks the end of a a segment in the assembly code

c) END: END program

Marks the end of the assembly code.

c)

i) Divide the content of AX register by 50

→

```
MOV AX, 100H
MOV CL, 50H
DIV CL
```

ii) Rotate the content of BX register by 4 bit towards left

→

```
MOV CL, 04H
ROL BX, CL
```

Conclusion:

From this experiment, we learned logical instructions, assembler directives arithmetic operations in 8086 AL.