

EXPERIMENT - 5

AIM:- To count the frequency of a number in an array of numbers of size 10 stored in memory locations.

CODE-

```
ORG 0000H
MOV R0,#40H
MOV R2,#00H      //R2 IS FOR COUNTING
MOV R3,#0AH
LOOP2:MOV A,@R0
CJNE A,#02H,LOOP1
INC R2
INC R0
DJNZ R3,LOOP2
LOOP1: INC R0
DJNZ R3,LOOP2

END
```

INPUT-

Address:	D:0X40
D:0x40:	01 02 02 03 04 05 02 08 02 02 00
D:0x45:	00 00 00 00 00 00 00 00 00 00 00

OUTPUT- (FREQUENCY OF 2)

Register	Value
Regs	
r0	0x80
r1	0x00
r2	0x05
r3	0xca
r4	0x00
r5	0x00
r6	0x00
r7	0x00
Sys	
a	0x00
b	0x00
sp	0x07
sp_max	0x07
dptr	0x0000
PC \$	C:0x0007
states	390
sec	0.00019500
psw	0x80

CONCLUSION- Register R2 is for counting . Hence frequency of 2 is stored in R2 which is 5.