

PRACTICAL – 35**AIM:**

Write a 20 ms time delay subroutine using register pair BC. At the end of subroutine, clear the flag Z without affecting other flags and return to main program.

CODE:

org 100h

MOV CX, 0002H

L1:

DEC CX

JNZ L1

MOV BX, 0FFBFH

PUSHF

POP AX

AND AX, BX

PUSH AX

POPF

ret

OUTPUT:

emulator: noname.com_

file math debug view external virtual devices virtual drive help

Load reload step back single step run step delay ms: 0

registers	H	L
AX	02	06
BX	FF	BF
CX	00	00
DX	00	00
CS	F400	
IP	0154	
SS	0700	
SP	FFFA	
BP	0000	
SI	0000	
DI	0000	
DS	0700	
ES	0700	

F400:0154		F400:0154	
F4150:	FF 255 RES	BIOS DI	
F4151:	FF 255 RES	INT 020h	
F4152:	CD 205 =	IRET	
F4153:	20 032 SPA	ADD [BX + SI], AL	
F4154:	CF 207 =	ADD [BX + SI], AL	
F4155:	00 000 NULL	ADD [BX + SI], AL	
F4156:	00 000 NULL	ADD [BX + SI], AL	
F4157:	00 000 NULL	ADD [BX + SI], AL	
F4158:	00 000 NULL	ADD [BX + SI], AL	
F4159:	00 000 NULL	ADD [BX + SI], AL	
F415A:	00 000 NULL	ADD BH, BH	
F415B:	00 000 NULL	DEC BP	
F415C:	00 000 NULL	SBB CL, BH	
F415D:	00 000 NULL	ADD [BX + SI], AL	
F415E:	00 000 NULL	ADD [BX + SI], AL	
F415F:	00 000 NULL	ADD [BX + SI], AL	
F4160:	FF 255 RES	ADD [BX + SI], AL	
F4161:	FF 255 RES	ADD [BX + SI], AL	
F4162:	CD 205 =	ADD [BX + SI], AL	
F4163:	1A 026 →	ADD [BX + SI], AL	
F4164:	CF 207 ±	ADD [BX + SI], AL	
F4165:	00 000 NULL	...	

screen source reset aux vars debug stack flags

flags

CF 0
ZF 1
SF 0
OF 0
PF 1
AF 0
IF 1
DF 0

analyse

CONCLUSION: In this practical, we learnt how to change the value of Zero Flag (using AND) without affecting other flags.