QUESTION 1

```
EAX = 0055F8C0 EBX = 0036A69B ECX = 00011005 EDX = 00011005 ESI = 00011005 EDI = 00011005 EIP = 00011014 ESP = 0055F868 EBP = 0055F874
   EFL = 00000246
```

```
EAX = 0000A69B EBX = 0036A69B ECX = 00011005 EDX = 00011005 ESI = 00011005 EDI = 00011005 EIP = 00011017 ESP = 0055F868 EBP = 0055F874
   EFL = 00000246
```

```
EAX = 0000A69B EBX = 0036A69B ECX = 00011005 EDX = 0000009B ESI = 00011005 EDI = 00011005 EIP = 0001101A ESP = 0055F868 EBP = 0055F874
   EFL = 00000246
```

```
EAX = 0000A69B EBX = 0036A69B ECX = 0001009B EDX = 0000009B ESI = 00011005 EDI = 00011005 EIP = 0001101E ESP = 0055F868 EBP = 0055F874
   EFL = 00000246
```

```
EAX = 0000A69B EBX = 0036A69B ECX = 0001009B EDX = 0000009B ESI = 00011005 EDI = 00011005 EIP = 00011022 ESP = 0055F868 EBP = 0055F874
   EFL = 00000246
```

```
EAX = FFFFA69B EBX = 0036A69B ECX = 0001009B EDX = 0000009B ESI = 00011005 EDI = 00011005 EIP = 00011025 ESP = 0055F868 EBP = 0055F874
   EFL = 00000246
```

```
EAX = FFFFA69B EBX = 0036A69B ECX = 0001009B EDX = FFFFFF9B ESI = 00011005 EDI = 00011005 EIP = 00011028 ESP = 0055F868 EBP = 0055F874
   EFL = 00000246
```

```
EAX = FFFFA69B EBX = 0036A67B ECX = 0001009B EDX = FFFFFF9B ESI = 00011005 EDI = 00011005 EIP = 0001102A ESP = 0055F868 EBP = 0055F874
   EFL = 00000246
```

```
EAX = FFFFA69B EBX = 0036A67B ECX = 0001007B EDX = FFFFFF9B ESI = 00011005 EDI = 00011005 EIP = 0001102E ESP = 0055F868 EBP = 0055F874
   EFL = 00000246
```

```
EAX = FFFF2000 EBX = 0036A67B ECX = 0001007B EDX = FFFFFF9B ESI = 00011005 EDI = 00011005 EIP = 00011034 ESP = 0055F868 EBP = 0055F874
   EFL = 00000246
```

```
EAX = FFFF1000 EBX = 0036A67B ECX = 0001007B EDX = FFFFFF9B ESI = 00011005 EDI = 00011005 EIP = 00011041 ESP = 0055F868 EBP = 0055F874
   EFL = 00000246
```

```
EAX = FFFF1020 EBX = 0036A67B ECX = 0001007B EDX = FFFFFF9B ESI = 00011005 EDI = 00011005 EIP = 00011046 ESP = 0055F868 EBP = 0055F874
   EFL = 00000246
```

```
EAX = FFFF1010 EBX = 0036A67B ECX = 0001007B EDX = FFFFFF9B ESI = 00011005 EDI = 00011005 EIP = 0001104B ESP = 0055F868 EBP = 0055F874
   EFL = 00000246
```

```
EAX = FFFF1030 EBX = 0036A67B ECX = 0001007B EDX = FFFFFF9B ESI = 00011005 EDI = 00011005 EIP = 00011050 ESP = 0055F868 EBP = 0055F874
   EFL = 00000246
```

```
EAX = FFFF0100 EBX = 0036A67B ECX = 0001007B EDX = FFFFFF9B ESI = 00011005 EDI = 00011005 EIP = 00011056 ESP = 0055F868 EBP = 0055F874
   EFL = 00000246
```

```
EAX = FFFF0400 EBX = 0036A67B ECX = 0001007B EDX = FFFFFF9B ESI = 00011005 EDI = 00011005 EIP = 0001105C ESP = 0055F868 EBP = 0055F874
   EFL = 00000246
0x0001400f = 00010000
```

```
EAX = 00010000 EBX = 0036A67B ECX = 0001007B EDX = FFFFFF9B ESI = 00011005 EDI = 00011005 EIP = 00011061 ESP = 0055F868 EBP = 0055F874
   EFL = 00000246
0x00014013 = 00020000
```

```
EAX = 00020000 EBX = 0036A67B ECX = 0001007B EDX = FFFFFF9B ESI = 00011005 EDI = 00011005 EIP = 00011066 ESP = 0055F868 EBP = 0055F874
   EFL = 00000246
0x00014013 = 00020000
```

```
EAX = 00020000 EBX = 0036A67B ECX = 0001007B EDX = FFFFFF9B ESI = 00011005 EDI = 00011005 EIP = 0001106B ESP = 0055F868 EBP = 0055F874
  EFL = 00000246
```

QUESTION 2

```
EAX = 00CF2000 EBX = 00A3C000 ECX = 006B1005 EDX = 006B1005 ESI = 006B1005 EDI = 006B1005 EIP = 006B1014 ESP = 00CFF90C EBP = 00CFF918
  EFL = 00000246
```

```
EAX = 00CF2001 EBX = 00A3C000 ECX = 006B1005 EDX = 006B1005 ESI = 006B1005 EDI = 006B1005 EIP = 006B1016 ESP = 00CFF90C EBP = 00CFF918
  EFL = 00000202
```

```
EAX = 00CF2000 EBX = 00A3C000 ECX = 006B1005 EDX = 006B1005 ESI = 006B1005 EDI = 006B1005 EIP = 006B1018 ESP = 00CFF90C EBP = 00CFF918
  EFL = 00000206

0x006b4004 = 00000024
```

```
EAX = 00000024 EBX = 00A3C000 ECX = 006B1005 EDX = 006B1005 ESI = 006B1005 EDI = 006B1005 EIP = 006B101D ESP = 00CFF90C EBP = 00CFF918
  EFL = 00000206
```

```
EAX = FFFFFFDC EBX = 00A3C000 ECX = 006B1005 EDX = 006B1005 ESI = 006B1005 EDI = 006B1005 EIP = 006B101F ESP = 00CFF90C EBP = 00CFF918
  EFL = 00000293

0x006b4008 = 00000014
```

```
EAX = FFFFFFDC EBX = 00000014 ECX = 006B1005 EDX = 006B1005 ESI = 006B1005 EDI = 006B1005 EIP = 006B1025 ESP = 00CFF90C EBP = 00CFF918
  EFL = 00000293

0x006b400c = 0000001E
```

```
EAX = FFFFFFDC EBX = FFFFFFF6 ECX = 006B1005 EDX = 006B1005 ESI = 006B1005 EDI = 006B1005 EIP = 006B102B ESP = 00CFF90C EBP = 00CFF918
  EFL = 00000297
```

```
EAX = FFFFFFD2 EBX = FFFFFFF6 ECX = 006B1005 EDX = 006B1005 ESI = 006B1005 EDI = 006B1005 EIP = 006B102D ESP = 00CFF90C EBP = 00CFF918
  EFL = 00000297

0x006b4000 = 00000000
```

```
EAX = FFFFFFD2 EBX = FFFFFFF6 ECX = 006B1005 EDX = 006B1005 ESI = 006B1005 EDI = 006B1005 EIP = 006B1032 ESP = 00CFF90C EBP = 00CFF918
  EFL = 00000297
```

```
EAX = FFFFFFD2 EBX = FFFFFFF6 ECX = 006B0001 EDX = 006B1005 ESI = 006B1005 EDI = 006B1005 EIP = 006B1036 ESP = 00CFF90C EBP = 00CFF918
  EFL = 00000297
```

```
EAX = FFFFFFD2 EBX = FFFFFFF6 ECX = 006B0000 EDX = 006B1005 ESI = 006B1005 EDI = 006B1005 EIP = 006B103A ESP = 00CFF90C EBP = 00CFF918
  EFL = 00000246
```

```
EAX = FFFFFFFF EBX = FFFFFFF6 ECX = 006B0000 EDX = 006B1005 ESI = 006B1005 EDI = 006B1005 EIP = 006B103E ESP = 00CFF90C EBP = 00CFF918
  EFL = 00000246
```

```
EAX = FFFF0000 EBX = FFFFFFF6 ECX = 006B0000 EDX = 006B1005 ESI = 006B1005 EDI = 006B1005 EIP = 006B1040 ESP = 00CFF90C EBP = 00CFF918
  EFL = 00000256
```

```
EAX = FFFF0000 EBX = FFFFFFF6 ECX = 006B0000 EDX = 006B1005 ESI = 006B1005 EDI = 006B1005 EIP = 006B1044 ESP = 00CFF90C EBP = 00CFF918
  EFL = 00000256
```

```
EAX = FFFF0000 EBX = FFFFFFF6 ECX = 006BFFFF EDX = 006B1005 ESI = 006B1005 EDI = 006B1005 EIP = 006B1048 ESP = 00CFF90C EBP = 00CFF918
  EFL = 00000297
```

```
EAX = FFFF7FFF EBX = FFFFFFF6 ECX = 006BFFFF EDX = 006B1005 ESI = 006B1005 EDI = 006B1005 EIP = 006B104C ESP = 00CFF90C EBP = 00CFF918
  EFL = 00000297
```

```
EAX = FFFF8001 EBX = FFFFFFF6 ECX = 006BFFFF EDX = 006B1005 ESI = 006B1005 EDI = 006B1005 EIP = 006B1050 ESP = 00CFF90C EBP = 00CFF918
  EFL = 00000A92
```

```
EAX = FFFF80FF EBX = FFFFFFF6 ECX = 006BFFFF EDX = 006B1005 ESI = 006B1005 EDI = 006B1005 EIP = 006B1052 ESP = 00CFF90C EBP = 00CFF918
  EFL = 00000A92
```

```
EAX = FFFF8000 EBX = FFFFFFF6 ECX = 006BFFFF EDX = 006B1005 ESI = 006B1005 EDI = 006B1005 EIP = 006B1054 ESP = 00CFF90C EBP = 00CFF918
  EFL = 00000257
```

```
EAX = FFFF807F EBX = FFFFFFF6 ECX = 006BFFFF EDX = 006B1005 ESI = 006B1005 EDI = 006B1005 EIP = 006B1056 ESP = 00CFF90C EBP = 00CFF918
  EFL = 00000257
```

```
EAX = FFFF8080 EBX = FFFFFFF6 ECX = 006BFFFF EDX = 006B1005 ESI = 006B1005 EDI = 006B1005 EIP = 006B1058 ESP = 00CFF90C EBP = 00CFF918
  EFL = 00000A92
```

```
EAX = FFFF807F EBX = FFFFFFF6 ECX = 006BFFFF EDX = 006B1005 ESI = 006B1005 EDI = 006B1005 EIP = 006B105C ESP = 00CFF90C EBP = 00CFF918
  EFL = 00000A12
```

QUESTION 3

registers	H	L
AX	80	7F
BX	FF	F0
CX	FF	FF
DX	00	00
CS	F400	
IP	0154	
SS	0700	
SP	FFFA	
BP	0000	
SI	0000	
DI	0000	
DS	0700	
ES	0700	

registers (1)

	H	L
AX	10	00
BX	00	00
CX	00	36
DX	00	00
CS	0700	
IP	0103	
SS	0700	
SP	FFFE	
BP	0000	
SI	0000	
DI	0000	
DS	0700	
ES	0700	

registers (2)

	H	L
AX	10	01
BX	00	00
CX	00	36
DX	00	00
CS	0700	
IP	0104	
SS	0700	
SP	FFFE	
BP	0000	
SI	0000	
DI	0000	
DS	0700	
ES	0700	

registers (3)

	H	L
AX	10	00
BX	00	00
CX	00	36
DX	00	00
CS	0700	
IP	0105	
SS	0700	
SP	FFFE	
BP	0000	
SI	0000	
DI	0000	
DS	0700	
ES	0700	

registers (4)

	H	L
AX	00	26
BX	00	00
CX	00	36
DX	00	00
CS	0700	
IP	0108	
SS	0700	
SP	FFFE	
BP	0000	
SI	0000	
DI	0000	
DS	0700	
ES	0700	

registers (5)

	H	L
AX	FF	DA
BX	00	00
CX	00	36
DX	00	00
CS	0700	
IP	010A	
SS	0700	
SP	FFFE	
BP	0000	
SI	0000	
DI	0000	
DS	0700	
ES	0700	

registers (6)

	H	L
AX	FF	DA
BX	00	30
CX	00	36
DX	00	00
CS	0700	
IP	010D	
SS	0700	
SP	FFFE	
BP	0000	
SI	0000	
DI	0000	
DS	0700	
ES	0700	

registers (7)

	H	L
AX	FF	DA
BX	FF	F0
CX	00	36
DX	00	00
CS	0700	
IP	0110	
SS	0700	
SP	FFFE	
BP	0000	
SI	0000	
DI	0000	
DS	0700	
ES	0700	

registers (8)

	H	L
AX	FF	CA
BX	FF	F0
CX	00	36
DX	00	00
CS	0700	
IP	0112	
SS	0700	
SP	FFFE	
BP	0000	
SI	0000	
DI	0000	
DS	0700	
ES	0700	

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registers

	H	L
AX	FF	CA
BX	FF	F0
CX	00	01
DX	00	00
CS	0700	
IP	0115	
SS	0700	
SP	FFFE	
BP	0000	
SI	0000	
DI	0000	
DS	0700	
ES	0700	

registers

	H	L
AX	FF	CA
BX	FF	F0
CX	00	00
DX	00	00
CS	0700	
IP	0118	
SS	0700	
SP	FFFE	
BP	0000	
SI	0000	
DI	0000	
DS	0700	
ES	0700	

registers

	H	L
AX	FF	FF
BX	FF	F0
CX	00	00
DX	00	00
CS	0700	
IP	011B	
SS	0700	
SP	FFFE	
BP	0000	
SI	0000	
DI	0000	
DS	0700	
ES	0700	

registers

	H	L
AX	00	00
BX	FF	F0
CX	FF	FF
DX	00	00
CS	0700	
IP	0122	
SS	0700	
SP	FFFE	
BP	0000	
SI	0000	
DI	0000	
DS	0700	
ES	0700	

registers

	H	L
AX	7F	FF
BX	FF	F0
CX	FF	FF
DX	00	00
CS	0700	
IP	0125	
SS	0700	
SP	FFFE	
BP	0000	
SI	0000	
DI	0000	
DS	0700	
ES	0700	

registers

	H	L
AX	80	01
BX	FF	F0
CX	FF	FF
DX	00	00
CS	0700	
IP	0128	
SS	0700	
SP	FFFE	
BP	0000	
SI	0000	
DI	0000	
DS	0700	
ES	0700	

registers

	H	L
AX	80	FF
BX	FF	F0
CX	FF	FF
DX	00	00
CS	0700	
IP	012A	
SS	0700	
SP	FFFE	
BP	0000	
SI	0000	
DI	0000	
DS	0700	
ES	0700	

registers

	H	L
AX	80	00
BX	FF	F0
CX	FF	FF
DX	00	00
CS	0700	
IP	012C	
SS	0700	
SP	FFFE	
BP	0000	
SI	0000	
DI	0000	
DS	0700	
ES	0700	

registers

	H	L
AX	80	01
BX	FF	F0
CX	FF	FF
DX	00	00
CS	0700	
IP	0131	
SS	0700	
SP	FFFE	
BP	0000	
SI	0000	
DI	0000	
DS	0700	
ES	0700	

registers

	H	L
AX	80	80
BX	FF	F0
CX	FF	FF
DX	00	00
CS	0700	
IP	0133	
SS	0700	
SP	FFFE	
BP	0000	
SI	0000	
DI	0000	
DS	0700	
ES	0700	

registers

	H	L
AX	80	7F
BX	FF	F0
CX	FF	FF
DX	00	00
CS	0700	
IP	0135	
SS	0700	
SP	FFFE	
BP	0000	
SI	0000	
DI	0000	
DS	0700	
ES	0700	

QUESTION 4

a) add ax,bx

```
TITLE My First Program (Test.asm)
INCLUDE Irvine32.inc
.code
main PROC
mov ax, 10h
mov bx, 25h
call DumpRegs
exit
main ENDP
END main
```

EAX=01360035   EBX=010A0025

b) **add dx,bl   NOT VALID**
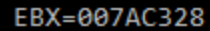
c) add ecx,dx   NOT VALID

d) sub si,di

```
TITLE My First Program (Test.asm)
INCLUDE Irvine32.inc
.code
main PROC
mov si, 30h
mov di, 25h
sub si,di
call DumpRegs
exit
main ENDP
END main
```
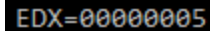
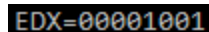ESI=0098000B   EDI=00980025

e) add bx,90000

```
TITLE My First Program (Test.asm)
INCLUDE Irvine32.inc
.code
main PROC
add bx,9000
call DumpRegs
exit
main ENDP
END main
```

EBX=007AC328

f) sub ds,1   NOT VALID

g) dec ip   NOT VALID

h) dec edx

```
TITLE My First Program (Test.asm)
INCLUDE Irvine32.inc
.code
main PROC
mov edx,6h
dec edx
call DumpRegs
exit
main ENDP
END main
```

EDX=00000005

i)add edx,1000h

EDX=00001001

```
TITLE My First Program (Test.asm)
INCLUDE Irvine32.inc
.code
main PROC
mov edx,1h
add edx,1000h
call DumpRegs
exit
main ENDP
END main
```

j) sub ah,126h NOT VALID

k) sub al,256   NOT VALID

l) inc ax,1   NOT VALID