

COAL LAB 06

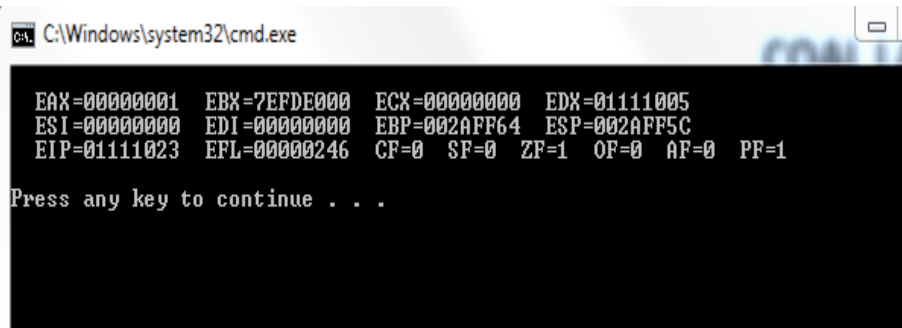
LOOP QUESTIONS...

TASK 1:

Code:

```
INCLUDE Irvine32.inc
.data
i DWORD 11
.code
main PROC
mov eax, 0
mov ecx, i
L1:
    mov eax, ecx
Loop L1
call DumpRegs
exit
main ENDP
END main
```

Screenshot:



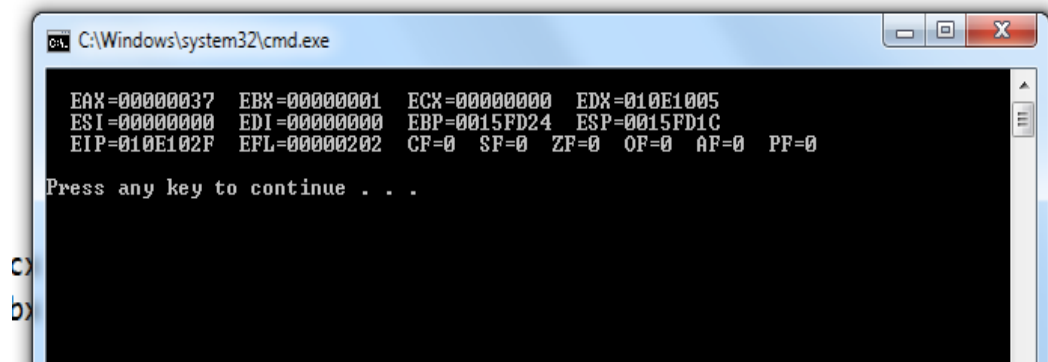
TASK 2:

Code:

```
INCLUDE Irvine32.inc
.data
Sum DWORD ?
Num DWORD 10
.code
main PROC
mov eax, 0
mov ecx, Num
L1:
    mov ebx, ecx
    add Sum, ebx
Loop L1
mov eax, Sum
```

```
call DumpRegs
exit
main ENDP
END main
```

Screenshot:



A screenshot of a Windows command prompt window titled "C:\Windows\system32\cmd.exe". The window displays the following assembly register values:

```
EAX=00000037  EBX=00000001  ECX=00000000  EDX=010E1005
ESI=00000000  EDI=00000000  EBP=0015FD24  ESP=0015FD1C
EIP=010E102F  EFL=00000202  CF=0   SF=0   ZF=0   OF=0   AF=0   PF=0
```

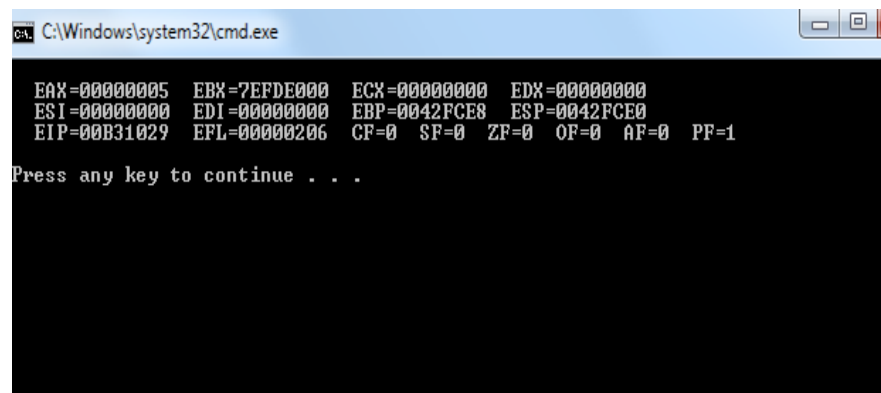
Below the register values, the text "Press any key to continue . . ." is displayed.

TASK 3:

Code:

```
INCLUDE Irvine32.inc
.data
n DWORD 5
.code
main PROC
mov eax, 0
mov ecx, 10
L1:
    mov eax, ecx
    mul n
Loop L1
call DumpRegs
exit
main ENDP
END main
```

Screenshot:



A screenshot of a Windows command prompt window titled "C:\Windows\system32\cmd.exe". The window displays the following assembly register values:

```
EAX=00000005  EBX=7EFDE000  ECX=00000000  EDX=00000000
ESI=00000000  EDI=00000000  EBP=0042FCE8  ESP=0042FCE0
EIP=00B31029  EFL=00000206  CF=0   SF=0   ZF=0   OF=0   AF=0   PF=1
```


Below the register values, the text "Press any key to continue . . ." is displayed.

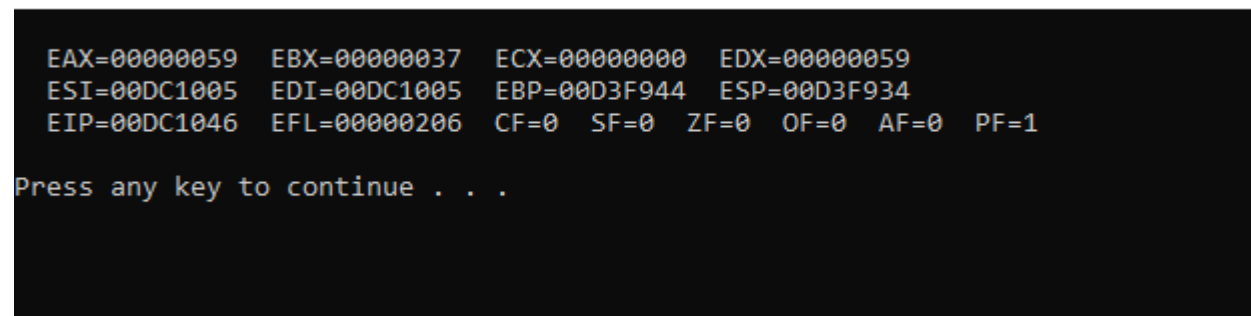
TASK 4:

Code:

```
INCLUDE Irvine32.inc
.data
i DWORD ?
n DWORD ?
t1 DWORD 0
t2 DWORD 1
nexTerm DWORD ?
.code
main PROC
mov eax, t1
mov ecx, 10
mov ebx, t2
L1:
    add eax, ebx
    mov nexTerm, eax
    mov ebx, t2
    mov t1, ebx
    mov edx, nexTerm
    mov t2, edx
loop L1
call DumpRegs
exit
main ENDP
end MAIN
```

Screenshot:

 Select C:\Windows\system32\cmd.exe



```
EAX=00000059  EBX=00000037  ECX=00000000  EDX=00000059
ESI=00DC1005  EDI=00DC1005  EBP=00D3F944  ESP=00D3F934
EIP=00DC1046  EFL=00000206  CF=0   SF=0   ZF=0   OF=0   AF=0   PF=1

Press any key to continue . . .
```