Q1). Choose the correct answer for the following questions.

1- The linear address of the segment address **6A1E:1F2** is:
a). 6B322   b). 6A1D3   c). 6A3D2   d). 6B3D2

2- the hexadecimal expression of $1100\ 0001\ 1111\ 1001_2$ is:
a). C1F9   b). C1E9   c). D2F9   d). F1FA

3- which of the following is a 32 bit data type
a). DWORD   b). QWORD   c). TBYTE   d). SBYTE

4- which register contains the address of next instruction
a). EBP   b). ESP   c). ESI   d). EIP

5- the file which contains the starting address, the end address, and size of segment is:
a). Listing File   b). Map File   c). Source File   d). Object File

Q2). State the differences between RISC and CISC architecture.

CISC – complex instruction set
        large instruction set
        high-level operations
        requires microcode interpreter
	RISC – reduced instruction set
	        simple, atomic instructions
	        small instruction set
	        directly executed by hardware

Q3). State the differences between Real Addressing mode and protected addressing mode.

Real Addressing Mode
    MB RAM maximum addressable
    0 to FFFFF hexadecimal
    Application programs can access any area of memory
    Single tasking
    Supported by MS-DOS operating system
	Protected Addressing Mode
	    4 GB addressable RAM
	     (00000000 to FFFFFFFFh)
	    Each program assigned a memory partition which is protected from other programs
	    Designed for multitasking
	    Supported by Linux & MS-Windows

Q4). What is the function of the followings:

   1- Address bus : selects where data comes from or goes to

   2- Data bus : moves data between memory/i/o and registers

   3- Page table: maintain information about where pages are available and their locations.

   4- Listing file: Use it to see how your program is compiled and it is Contains, source code, addresses, object code (machine language), segment names, symbols (variables, procedures, and constants)

Q5). Write an assembly program that perform the following operations

```
Y=X+Z
X=Y+25
Z=Y-X
```

Assume the data above are double word and initialize the parameter by data of your choice.

```
.data

X      DWORD    10h

Y      DWORD    20h

Z      DWORD    30h

.code

MAIN      PROC

MOV       eax,X

ADD       eax,Z

MOV       Y,eax

ADD       eax,25

MOV       X,eax

MOV       eax,Y

SUB       eax,X

MOV       Z,eax

MAIN      ENDP

END       MAIN
```