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25/07/2020

Matic Number: 17/ENG02/052

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COE 306 - Test.

1 a. It will not be a good idea to use numeric addresses when writing instructions that access variables because whenever there are new variables inserted, the instructions would have to be updated before existing ones.

b. Object file and listing files (.LST)

3. b. Main Proc; The beginning of the procedure/process.
MOV AX, 47104 ; move 47104 to the AX register.
ADD EAX, 1270 ; add 1270 to the EAX register.
MOV DS, AX ; move AX to DS.
main ENDP ; means the end of the process

① Segmentation is achieved by using directives which are embedded commands in the source code. They are listed as follows:-

- Code {This is used to describe the area with executable instructions}.
- data {Used to describe the area with variables declaration}.
- Stack {This is used to describe the area with stack pointers}.

② i Value 1 BYTE 6Dh ; initialized unsigned 8-bit variable declaration.

ii Value 2 DWORD ? ; uninitialized 32-bit unsigned integer.

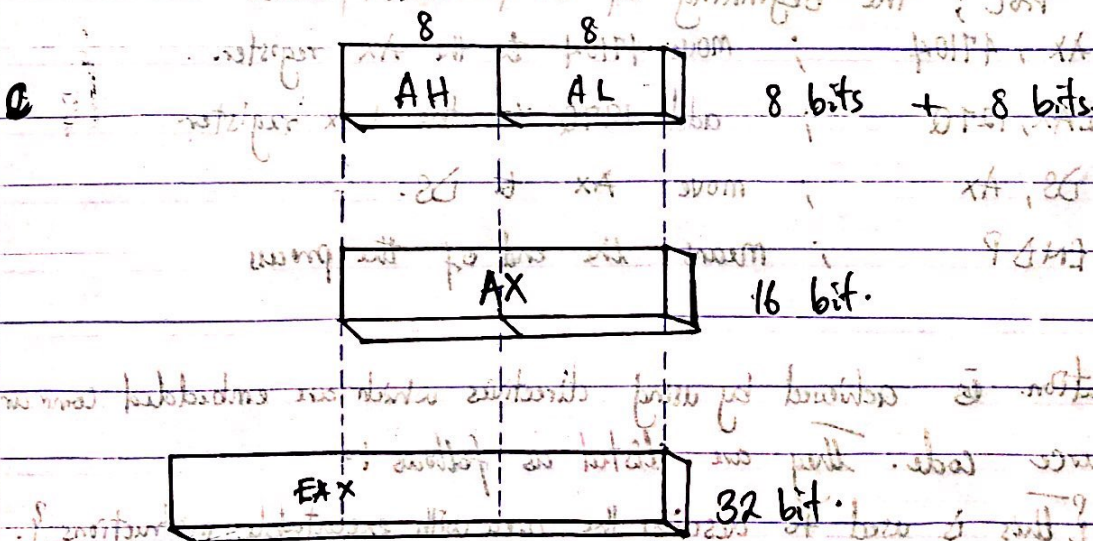
iii Value 8 SBYTE -10, -20, -30, -40, -50 ; multiple initialized signed integers.

~~Chalkboard~~

Question 2.

a. The concept of portability as it applies to programming language is the ability of a language whose source programs can be easily compiled and run on a wide range / variety of Computer Operating Systems it is installed on.

b. No. They are different. This is because they operate on different instruction sets, different machine code, different combinations and so they vary from each other. Basically, they are both different processors.



~~Assignment~~

Question 4.

TITLE ADDING 3 INTEGERS.

INCLUDE Irvine32.inc

.data

Var 1 WORD 4000

Var 2 WORD 2000

Var 3 WORD 1000

Final Var WORD ?

.code

Main PROC

mov eax, var 1

add eax, var 2

add eax, var 3

mov final var, eax

call DumpReg ;

exit

Main ENDP