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17/ENG02/080

COMPUTER ENGINEERING

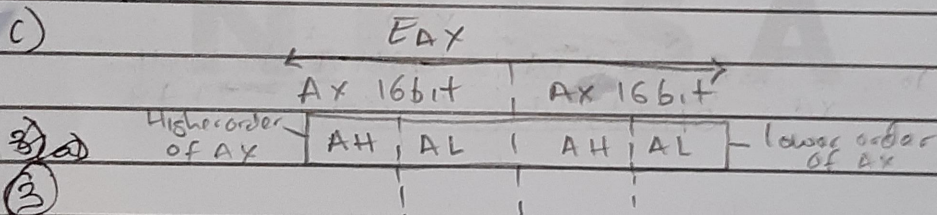
COE 308 MID SEMESTER TEST

1) a) Numerical addresses are a bad idea to use because an update will be needed after a new variable is added.

b) The assembler produces processor dependent files. i.e. ELF files are produced. - ELF files holds codes & data and are relocatable files.

2) a) Portability as it applies to programming language it allows the programmers to use words instead of numbers.

b) The assembly language for x86 processors is not the same as that of AMD or Motorola 68000 because each assembly language is based on various families of processors. processor dependent.



b) Main Proc: starting the procedure

MOV AX, 47104: move 47104 to the AX register

ADD EAX, 1270: add 1270 to the EAX register

MOV DS, AX: ^{copy} what is in the AX register into the DS

Main ENDP: Ending the procedure.

c) i) value 1 BYTE 6Dh

ii) 6Dh - is hexadecimal

n) value 2 DWORD ?

DWORD - double word 32 bit.

w) value 3 BYTE -10, -20, -30, -40, -50

-10, -20, -30, -40, -50 : a signed byte

3a) Segmentation is achieved in assembly language by using directives which are embedded commands in the source code

TITLE: subtraction of 3 integers

4) INCLUDE Irvine32.inc

-data

variable 1 WORD 3000

variable 2 WORD 1500

variable 3 WORD 1000

final variable WORD ?

-code

main PROC

mov eax, variable 1 ;

sub eax, variable 2 ;

sub eax, variable 3 ;

mov final variable, eax ;

call DumpReg ;

exit

main ENDP