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8/4/20

CPE 185

Homework 8

1.

(a) PROGSl.ASM(17): warning A4012: line number information for segment without class 'CODE' : cseg. CodeView cannot process modules with code in segments with class names that do not end with "CODE."

(b) LlNK : warning L4055: start address not equal to 0x100 for /TINY. COM programs (/TINY memory model) must start at 0100H.

(c) PROG51 .ASM(23): error ,42006: undefined symbol :eOOh. Assembler "thinks" this number is a label.

(d) Program assembles without error. However, when run, the output screen is blank. The wrong interrupt (number 10 instead of 16) is being called.

(e) PROG51 .ASM(27): error A2006: undefined symbol : IIIA. This symbol is not defined anywhere in the program

(f) PROG51 .ASM(31): fatal error A101 0: unmatched block nesting : cseg. Assembler cannot find the end of the segment.

(g) LlNK :warning L4055: start address not equal to 0x100 for /TINY. Linker cannot find a starting address.

(h) 102 errors! PROG51 .ASM(30): error A2046: missing single or double quotation mark in string. PROG51 .ASM(30): error A2039: line too long.

2.

```
                    cseg    segment      'Code'
                    assume  cs:cseg, ds:cseg, ss:cseg, es:cseg

                    org     100h         ;Leave room for PSP

0100  B4 00  start: mov  ah,0          ;BIOS service 0
0102  B0 02         mov  al,2          ;Video mode 2
0104  CD 10         int  10h           ;Set video mode and clear screen
0106  B8 0920       mov  ax,0920h      ;Service 9, ASCII space
0109  B3 1A         mov  bl,1ah        ;Bright green on blue
010B  B9 07C8       mov  cx,7c8h       ;Fill screen
010E  CD 10         int  10h           ;Set screen color
0110  B4 02         mov  ah,2          ;BIOS service 2
0112  BA 0A00       mov  dx,0a00h      ;Row 10, column 0
0115  B7 00         mov  bh,0          ;Page 0
0117  CD 10         int  10h           ;Set cursor
0119  B4 0E         mov  ah,0eh        ;BIOS servce 0E
011B  B0 00         mov  al,0          ;First character is 0
011D  CD 10   A1:   int  10h           ;Print character
011F  FE C0         inc  al            ;Next
0121  3C 80         cmp  al,80h        ;Done?
0123  75 F8         jnz  A1            ;No: loop again
0125  CD 20         int  20h           ;Yes: back to DOS

0127                cseg ends
                    end  start
```

service 0 ;Video mode 2 ;Set video mode and clear screen ;Service 9, ASCII space ;Bright green on blue ;Fill screen ;Set screen color ;BIOS service 2 ;Row 10, column 0 ;Page 0 ;Set cursor ;BIOS servce OE ;First character is 0 ;Print character ;Next ;Done? ;No: loop again ;Yes: back to DOS