Appendix C. .ASM program for CodeView/Addressing Modes exercises.

;************************************************************
CODE SEGMENT 'code' ;These two statements for the CODE
CODE ENDS ;segment to be first in memory.
;Do not put your code here.
;Use the CODE segment at the bottom
;of the template.

;The section defines the stack segment.
STACK SEGMENT STACK
DW 100 DUP(0FFFFH)
STACK ENDS

;************************************************************
DATA SEGMENT 'data'
;Data definitions go here.
DaBYTEARRAY DB 00h,0d0h,01h,0d0h,02h,0d0h,03h,0d0h, \
 04h,0d0h,05h,0d0h,06h,0d0h,07h,0d0h;

DaWORDARRAY DW 0d000h,0d001h,0d002h,0d003h,0d004h,0d005h,0d006h,0d007h, \
 0d008h,0d009h,0d00ah,0d00bh,0d00ch,0d00dh,0d00eh,0d00fh, \ 
 0d010h,0d011h,0d012h,0d013h,0d014h,0d015h,0d016h,0d017h, \ 
 0d018h,0d019h,0d01ah,0d01bh,0d01ch,0d01dh,0d01eh,0d01fh;

DATA ENDS

;************************************************************

;This section is the code segment. Procedures (if any) should
;be defined before the main code section.
CODE SEGMENT 'code'
ASSUME CS:CODE,DS:DATA,SS:STACK

CBYTEARRAY DB 00h,0c0h,01h,0c0h,02h,0c0h,03h,0c0h, \
 04h,0c0h,05h,0c0h,06h,0c0h,07h,0c0h;

CWORDARRAY DW 0c000h,0c001h,0c002h,0c003h,0c004h,0c005h,0c006h,0c007h, \
 0c008h,0c009h,0c00ah,0c00bh,0c00ch,0c00dh,0c00eh,0c00fh, \ 
 0c010h,0c011h,0c012h,0c013h,0c014h,0c015h,0c016h,0c017h, \ 
 0c018h,0c019h,0c01ah,0c01bh,0c01ch,0c01dh,0c01eh,0c01fh;

;Procedure definitions should appear here.

;The entry point to the main program is labeled START. The
;main code section begins here.
START: MOV AX,CODE
;Here is where the main code should be placed.
MOV AX, 1A1AH
MOV AX, BX
MOV BX, cs:[0003H]
MOV cs:[0002H], BL
MOV DI, 7

MOV AX, DATA
MOV DS, AX

MOV AX, [DI]
MOV AH, [DI]
MOV AX, CS:[DI]
MOV AX, [DI+3]
MOV AX, [DI-1]

MOV BX, OFFSET DaWORDARRAY
MOV DI, 0

MOV DX, [BX+SI]
MOV DX, [BX][SI]
ADD SI, 2
MOV DX, [BX][SI]
ADD SI, 2
MOV DX, [BX][SI]

EXIT: MOV AX, 4C00H ;After the program runs,
INT 21H ;return to DOS.

CODE ENDS

END START ;The label placed on this line, i.e.
;'START' signifies the entry point.