Q1

Code:

TITLE My First Program (Test.asm)

INCLUDE Irvine32.inc

.data

x BYTE 5

y BYTE 8

z BYTE ?

.code

main PROC

;x = (x+1) – (y-1) + y

mov al,x

add al,1

mov ah,y

sub ah,1

add ah,y

sub al,ah

call DumpRegs

exit

main ENDP

END main

Q2

Code:

TITLE My First Program (Test.asm)

INCLUDE Irvine32.inc

.data

val1 word 8

val2 word 15

val3 word 20

.code

main PROC

;eax = -val2 + 7 – val3 +val1

mov ax,val1

add ax,7

sub ax,val3

sub ax,val2

movzx eax,ax

call DumpRegs

exit

main ENDP

END main

Q3

Code:

TITLE My First Program (Test.asm)

INCLUDE Irvine32.inc

.data

side BYTE 5h

.code

main PROC

mov al,side

mul al

mov ah,al

call DumpRegs

exit

main ENDP

END main

Q4

CODE:

TITLE My First Program (Test.asm)

INCLUDE Irvine32.inc

.data

s1 BYTE 5h

s2 BYTE 6h

.code

main PROC

mov al,s1

mov ah,s2

mul ah

call DumpRegs

exit

main ENDP

END main

Q5

Code:

TITLE My First Program (Test.asm)

INCLUDE Irvine32.inc

.data

b BYTE 6h

h BYTE 7h

a BYTE 2h

.code

main PROC

mov al,b

mov ah,h

mul ah

div a

movzx eax,al

call DumpRegs

exit

main ENDP

END main

Q6

Code:

TITLE My First Program (Test.asm)

INCLUDE Irvine32.inc

.data

val1 BYTE 10h

val2 WORD 8000h

val3 DWORD 0FFFFh

val4 WORD 7FFFh

.code

main PROC

1)

mov ax,val2

inc ax

2)

sub eax,val3

3)

mov ax,val2

sub ax,val4

4)

mov ax,val2

sub ax,val4

5)

mov ax,val2

inc ax

6)

mov bx,val4

inc bx

call DumpRegs

exit

main ENDP

END main