**COAL LAB 9 TASKS**

**Q1:**

INCLUDE Irvine32.inc

.code

main PROC

mov eax, 2

shl eax, 1

mov ebx, 4

shl ebx, 2

mov ecx, 1

shl ecx, 0

add eax, ebx

add eax, ecx

call WriteDec

exit

main ENDP

END main

**Graphical user interface, text, application

Description automatically generated**

**Q2:**

INCLUDE Irvine32.inc

.data

.code

main PROC

mov ax, -128

shl eax, 16

sar eax, 16

call WriteBin

mov ax, -128

rol eax, 16

rcr eax, 16

call WriteBin

exit

main ENDP

END main

**Graphical user interface, text, application

Description automatically generated**

**Q3:**

INCLUDE Irvine32.inc

.data

bMinute BYTE ?

.code

main PROC

mov ax, 011100111111110b

shr ax, 5

and ax, 00111111b

mov bMinute, al

movzx eax, bMinute

call WriteBin

call WriteDec

exit

main ENDP

END main

**Graphical user interface, text, application

Description automatically generated**

**Q4:**

INCLUDE Irvine32.inc

.code

main PROC

mov eax, 000111h

mov ax, 0CFDAh

mov bx, 0FFFFh

mov cx, ax

and cx, 00001111000b

ror cx, 20

shr bx, 4

add bx, cx

mov ax, bx

call WriteBin

call WriteHex

mov eax, 000111h

mov ax, 0CFDAh

mov bx, 0FFFFh

shrd bx, ax, 4

mov ax, bx

call WriteBin

call WriteHex

exit

main ENDP

END main

**Text

Description automatically generated**

**Q5:**

INCLUDE Irvine32.inc

.data

val1 SBYTE +40

val2 SBYTE +20

val3 SBYTE +10

.code

main PROC

mov eax, 000000h

mov al, val2

CBW

idiv val3

mov bx, ax

mov al, val1

CBW

idiv val2

imul bl

call WriteInt

exit

main ENDP

END main

**Graphical user interface, text, application

Description automatically generated**

**Q6:**

INCLUDE Irvine32.inc

.data

val1 QWORD 5

val2 QWORD 10

.code

main PROC

CALL Extended\_Add

add eax,ebx

call crlf

call writedec

call crlf

Extended\_Add PROC

mov ebx,DWORD PTR [val1]

mov eax,DWORD PTR [val2]

ret

Extended\_Add ENDP

exit

main ENDP

END main

**Text

Description automatically generated**