**LIST OF 8086 PROGRAMS**

**ADDITION OF 16 BIT NUMBERS USING 8086 PROCESSOR**

MOV AL, 06H

MOV BL, 0AH

ADD BL, AL

MOV CX,00008H

PRINT: MOV AH,02H

MOV DL,030H

TEST BL,080H

JZ ZERO

MOV DL,031H

ZERO: INT 021H

SHL BL,1

LOOP PRINT

MOV DL,062H

INT 021H

MOV AH,00H

INT 016H

RET

NOP

NOP

NOP

RET

**SUBTRACTION OF 16 BIT NUMBERS USING 8086 PROCESSOR**

MOV AL, 06H

MOV BL, 0AH

SUB BL, AL

MOV CX,00008H

PRINT: MOV AH,02H

MOV DL,030H

TEST BL,080H

JZ ZERO

MOV DL,031H

ZERO: INT 021H

SHL BL,1

LOOP PRINT

MOV DL,062H

INT 021H

MOV AH,00H

INT 016H

RET

NOP

NOP

NOP

RET

**MULTIPTION OF 16 BIT NUMBERS USING 8086 PROCESSOR**

MOV AL, 2 ; AL = 0C8h

MOV BL, 4

MUL BL ; AX = 0320h (800)

; print result in binary:

MOV bl, al

MOV cx, 8

print: MOV ah, 2 ; print function.

MOV dl, '0'

TEST bl, 10000000b ; test first bit.

JZ zero

MOV dl, '1'

zero: INT 21h

SHL bl, 1

LOOP print

; print binary suffix:

MOV dl, 'b'

INT 21h

; wait for any key press:

MOV ah, 0

INT 16h

RET

**DIVISION OF 16 BIT NUMBERS USING 8086 PROCESSOR**

MOV AL, 4 ; AL = 04h

MOV BL, 2

DIV BL ; AX = 02h (02)

; print result in binary:

MOV bl, al

MOV cx, 8

print: MOV ah, 2 ; print function.

MOV dl, '0'

TEST bl, 10000000b ; test first bit.

JZ zero

MOV dl, '1'

zero: INT 21h

SHL bl, 1

LOOP print

; print binary suffix:

MOV dl, 'b'

INT 21h

; wait for any key press:

MOV ah, 0

INT 16h

RET