**Lab 15**

**Program: 1 Create a program of using Mul mnemonic.**

.model small

.stack 100h

.data

msg1 db 10, 13 , " Enter Multiplicand: $"

msg2 db 10,13 , " Enter Multipiler: $"

msg3 db 10,13, " Result:$"

num1 db ?

num2 db ?

result db ?

.code

start:

mov ax,@data

mov ds,ax

mov ah,09

lea dx, msg1

int 21h

mov ah,01

int 21h

sub al, 30h

mov num1,al

mov ah,09

lea dx,msg2

int 21h

mov ah,01

int 21h

sub al,30h

mov num2,al

mul num1

mov result,al

aam

add ah,30h

add al,30h

mov bx,ax

mov ah,09

lea dx,msg3

int 21h

mov ah,02

mov dl, bh

int 21h

mov ah,02

mov dl, bl

int 21h

mov ah, 4ch

int 21h

end start

**Program: 2 Create a program of using DIV mnemonic.**

.MODEL SMALL

.STACK 2000

.DATA

MSGA DB 13,10,"Input first number: ","$"

MSGB DB 13,10,"Input second number: ","$"

MSGC DB 13,10,"The quotient is: ","$"

MSGD DB 13,10,"The modulo is: ","$"

NUM1 db ?

NUM2 db ?

.CODE

MAIN PROC NEAR

MOV AX, @DATA

MOV DS, AX

; get first number

LEA DX, MSGA

MOV AH, 09h

INT 21h

MOV AH, 01

INT 21H

SUB AL, '0'

MOV BL, AL

; get second number

LEA DX, MSGB

MOV AH, 09h

INT 21h

MOV AH, 01

INT 21H

SUB AL, '0'

MOV CL, AL

; divide

MOV AH, 0 ; prepare dividend

MOV AL, BL

DIV CL

MOV NUM1, AL

ADD NUM1, '0'

MOV NUM2, AH

ADD NUM2, '0'

; output quotient

LEA DX, MSGC

MOV AH, 09h

INT 21h

MOV DL, NUM1

MOV AH, 02H

INT 21h

; output remainder/modulo

LEA DX, MSGD

MOV AH, 09h

INT 21h

MOV DL, NUM2

MOV AH, 02H

INT 21h

MOV AH, 4Ch

INT 21h

MAIN ENDP

END MAIN