**LAB 10**

**Write a code to calculate the terms of fibonacci sequence by recursion. From main pass the required term to the recursive procedure.**

**and assume**

**f(0)=0**

**f(1)=1**

**Take the. terms to be word variables.**

**CODE:**

org 100h

.data

a dw 0

b dw 1

N dw 3

N2 dw 0

result dw 0

.code

push N

call fibbo

ret

fibbo proc

mov bp,sp

mov dx,[bp+2]

mov N,dx

cmp N,1

jne down

mov ax,1

mov n,ax

jmp down3

down:

cmp N,0

jne down2

mov bx,0

mov n2,bx

jmp down3

down2:

dec N

Push N

call fibbo

mov cx,ax

cmp cx,result

JE adding

mov bp,sp

mov dx,[bp+2]

mov N,dx

sub n,2

push n

call fibbo

add ax,bx

mov result,ax

jmp down3

adding:

mov cx,ax

add cx,bx

mov result,cx

mov cx,ax

mov bx,cx

mov cx,result

mov ax,cx

down3:

ret 2

**OUTPUT :**

