

```

;10h = sayi1
;11h = sayi2
;3.7 -> sayi2 oku butonu ;3.1 -> toplama islemi butonu
;3.2 -> cikarma islemi butonu ;3.3 -> faktoriyel al islemi ;2.0 -> negatif ledi
;2.1 -> tasma ledi
#include<ADUC841.H>

    btn_toplam      equ    p3.1
    btn_cikarma     equ    p3.2
    btn_faktoriyel  equ    p3.3
    btn_sayigir1    equ    p3.0
    btn_sayigir2    equ    p3.7
    led_tasma       equ    p2.1
    led_negatif     equ    p2.0
    org             0000h

basla:
    mov     10h,#00h ; sayi1=0
    mov     11h,#00h ; sayi2=0
    mov     p0,#00h ; ledler sonuk
    mov     dptr,#tablo

devam:
    call    btn_sayigirisi_kontrolu
    call    btn_toplama_kontrolu
    call    btn_cikarma_kontrolu
    call    btn_faktoriyel_kontrol
    sjmp    devam

btn_cikarma_kontrolu:
    jb      btn_cikarma,c2
    clr     c
    mov     a,10h          ; sayi1
    subb    a,11h          ; cikartma isl.
    mov     p0,a
    clr     led_negatif
    jnc     c2
    setb    led_negatif    ; negatif ledi yandi
c2: ret

btn_toplama_kontrolu:
    jb      btn_toplam,b2
    mov     a,10h
    add     a,11h
    mov     p0,a
    clr     led_tasma      ; tasma ledi temizlendi
    jnc     b2             ; c biti test et. tasma icin
    setb    led_tasma      ; tasma ledi yakildi
b2: ret

btn_sayigirisi_kontrolu:
    ; sayi1 butonu kontrolu
    jb      btn_sayigir1,x2 ; basilmamissa sayi2 buton kontrolu
x1: jnb     btn_sayigir1,x1 ; btn biraklinca sayi 1 belirle
    mov     a,p2
    anl     a,#00011111b
    movc    a,@a+dptr
    mov     10h,a          ; sayi1
    ; sayi2 butonu kontrolu
x2: jb      btn_sayigir2,x4
x3: jnb     btn_sayigir2,x3
    mov     a,p2
    anl     a,#00011111b

```

```
        movc    a,@a+dptr
        mov     11h,a          ;sayi 2
x4:     ret
btn_faktoriyel_kontrol:
        jnb     btn_faktoriyel,e2
        mov     a,10h
        dec     10h
e3:     mov     b,10h
        mul     ab              burası hatalı. ov biti
        djnz    10h,e3          testini döngü içine al.
        clr     led_tasma
        jnb     psw.2,e2 ; ov biti ov,e2
        setb    led_tasma
e2:     ret

tablo:  db
0,1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,19,20,21,22,23,24,25,26,27,28,29,30,31,32
end
```

CEVAP 2:

```
#include<aduc841.h>
```

```
org 00h
```

```
sjmp basla
```

```
basla:
```

```
mov 01h,#06h
```

```
mov sp,#08h
```

```
mov 20h,#15h
```

```
setb rs0
```

```
setb c
```

```
mov 05h,c
```

```
mov 08h,#06h
```

```
mov @r0,20h
```

```
clr psw.3
```

```
dec r6
```

```
pop acc
```

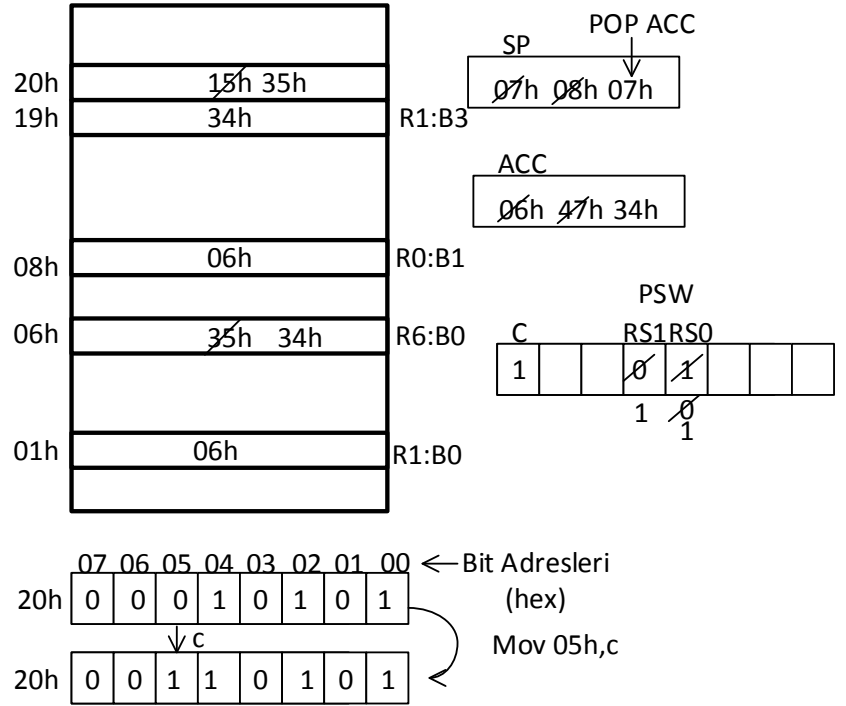
```
orl a,#45h
```

```
mov a,@r1
```

```
mov psw,#18h
```

```
mov r1,a
```

```
end
```

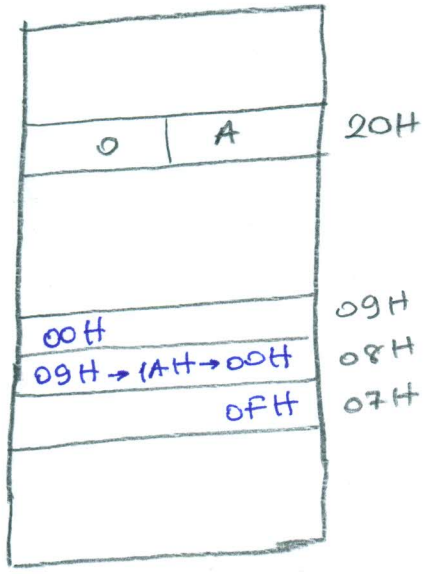


CE VAP 3

K1
K2
K3
K4
K5
K6
K7
K8
K9
K10
K11
K12
K13
K14
K15
K16
K17

PC	
	ORG 00H
0000H	BASLA: MOV PSW,#08H (Bank 1)
	MOV 20H,#0AH
0005H	MOV A,#1AH
0007H	ACALL ALT_1
0009H	MOV A,#05H
	MOV @R1,A
000CH	LCALL ALT_2
000FH	SJMP BASLA
0012H	ALT_1: MOV R0,A
	CLR A (A=0)
	CLR RS1 (Bank 0)
	
	RET
001AH	ALT_2: MOV 07H,#0FH
	
001FH	PUSH ACC
	RET
	END

RAM



K5: ACALL ALT-1

$(PC) \leftarrow (PC) + 2$
 $(SP) \leftarrow (SP) + 1$
 $((SP) \leftarrow PCL$
 $(SP) \leftarrow (SP) + 1$
 $((SP) \leftarrow PCH$

PC: 0009H
 SP: 08H
 PCL: 09H
 SP: 09H
 PCH: 00H

K13: RET

$PCH \leftarrow ((SP))$
 $(SP) \leftarrow (SP) - 1$
 $PCL \leftarrow ((SP))$
 $(SP) \leftarrow (SP) - 1$

PCH: 00H
 SP: 08H
 PCL: 1AH
 SP: 07H

Dönüş adresi: 001AH

K15: PUSH

$(SP) \leftarrow (SP) + 1$
 $((SP) \leftarrow ACC$

SP: 08H
 08H = 00H

K16: RET

$PCH \leftarrow ((SP))$
 $(SP) \leftarrow (SP) - 1$
 $PCL \leftarrow ((SP))$
 $(SP) \leftarrow (SP) - 1$

PCH: 00H
 SP: 07H
 PCL: 0FH
 SP: 06H

Dönüş adresi: 000FH