

# Архітектура комп'ютера

## Лабораторна робота №3

### Програмне формування затримки KP1816BE48

Виконав : Ромас А гр. ІО-01

```

Sel    Rb0

Mov    A, #0
Anld   P5, A

Movd   A, P4
Jb1    Top2

; top1
Top1:

Mov    A, #7      ; 5
Orld   P5, A      ; 5

Nop
Nop

Mov    A, #5
Anld   P5, A

; y2 delay finished

; delay for y1 222

Mov    A, #FEH    ; 5
Mov    T, A       ; 2.5
Strt   T          ; 2.5

; begin 160
Lb11:
Jtf    End1
Jmp    Lb11

End1:

; end 160

Nop

; begin 30
Mov    R7, #3      ; 5
Lb12:  Djnz  R7, Lb12
;end 30

Mov    A, #4
Anld   P5, A

; delay for y1 ended

Mov    A, #FBH
Mov    T, A
Strt   T

Lb14:

Jtf    End2
Jmp    Lb14

End2:

Mov    R7, #13

Lb122:  Djnz  R7, Lb122

Nop

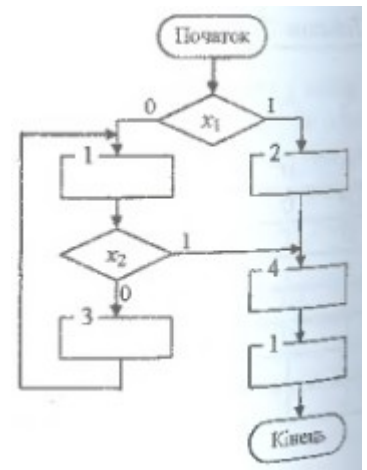
Mov    A, #0
Anld   P5, A

; delay for y3 ended
    
```

			Часові затримки				
$h_4$	$h_3$	$h_1$	Управляючі сигнали				
			$y_1$	$y_2$	$y_3$	$y_4$	$y_5$
0	0	0	720	25	400	10	800
0	0	1	560	12	700	330	280
0	1	0	100	725	15	22	45
0	1	1	40	240	100	50	150
1	0	0	18	280	80	720	60
1	0	1	400	35	800	180	12
1	1	0	560	15	20	150	80
1	1	1	222	15	720	500	560

		Управляючі сигнали			
$h_2$	$h_3$	Номер операторної вершини			
		1	2	3	4
0	0	$y_1 y_2$	$y_1 y_3$	$y_4 y_5$	$y_3$
0	1	$y_5$	$y_1 y_3 y_4$	$y_4$	$y_5$
1	0	$y_1 y_2 y_3$	$y_2$	$y_4 y_1$	$y_4$
1	1	$y_1 y_4$	$y_4$	$y_4 y_5$	$y_4$

$n_2$	$n_4$	Порт
0	0	BUS
0	1	P1
1	0	P2
1	1	P4, P5



```

        Movd    A, P4
        Jb2     Top4

; top3

Top3:

        Mov     A, #9
        Orld    P5, A

        Mov     A, #FEH
        Mov     T, A
        Strt    T

Some1b10: Jtf     Some1b13
        Jmp     Some1b10

Some1b13:

        Mov     R7, #6
Some1b11: Djnz    R7, Some1b11

;some1b12:
        Nop
        Mov     A, #8
        Anld    P5, A

; delay for y1 ended

        Mov     A, #FDH
        Mov     T, A
        Strt    T

Some1b12: Jtf     Some1b14
        Jmp     Some1b12

Some1b14:

        Nop
        Nop
        Nop
        Nop
        Nop

        Mov     A, #0
        Anld    P5, A

; delay for y4 ended

        Jmp     Top1

; top2

Top2:

        Mov     A, #2
        Orld    P5, A

        Nop
        Nop

        Mov     A, #0
        Anld    P5, A

; delay for y2 ended

; top4

Top4:

        Mov     A, #4
        Orld    P5, A

        Mov     A, #FBH
        Mov     T, A
        Strt    T

Some1b15: Jtf     Some1b16
        Jmp     Some1b15

```

Some1b16:

```
        Mov    R7, #14
Some1b17: Djnz   R7, Some1b17
```

; delay for y4 ended

```
        Mov    A, #0
        Anld   P5, A
```

; top11

Top11:

```
        Mov    A, #7      ; 5
        Orld   P5, A      ; 5
```

```
        Nop
        Nop
```

```
        Mov    A, #5
        Anld   P5, A
```

; y2 delay finished

; delay for y1 222

```
        Mov    A, #FEH    ; 5
        Mov    T, A       ; 2.5
        Strt    T         ; 2.5
```

; begin 160

L11:

```
        Jtf    En1
        Jmp     L11
```

En1:

; end 160

```
        Nop
```

; begin 30

```
        Mov    R7, #3      ; 5
L12:    Djnz   R7, L12
;end 30
```

```
        Mov    A, #4
        Anld   P5, A
```

; delay for y1 ended

```
        Mov    A, #FBH
        Mov    T, A
        Strt    T
```

L14:

```
        Jtf    En2
        Jmp     L14
```

En2:

```
        Mov    R7, #13
```

L122: Djnz R7, L122

```
        Nop
```

```
        Mov    A, #0
        Anld   P5, A
```

; delay for y3 ended

End