

**МІНІСТЕРСТВО ОСВІТИ І НАУКИ УКРАЇНИ
НАЦІОНАЛЬНИЙ УНІВЕРСИТЕТ "ЛЬВІВСЬКА ПОЛІТЕХНІКА"**

ІКНІ
Кафедра ПЗ

ЗВІТ

до лабораторної роботи № 3
на тему: “”
з дисципліни: “Архітектура комп’ютера”

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«_____» _____ 2022 р.
 Σ = _____

Тема. .

Мета. .

Індивідуальне завдання

ПЗ-21		ПЗ-22		ПЗ-23		ПЗ-24		ПЗ-25		ПЗ-26	
N ₂	f ₀ , КГц	N ₂	f ₀ , КГц	N ₂	f ₀ , КГц	N ₂	f ₀ , КГц	N ₂	f ₀ , КГц	N ₂	f ₀ , КГц
1	68	1	2	1	43	1	5	1	116	1	3
2	70	2	4	2	45	2	10	2	118	2	5
3	72	3	6	3	47	3	15	3	120	3	7
4	74	4	8	4	49	4	20	4	122	4	9
5	76	5	10	5	51	5	25	5	124	5	11
6	78	6	12	6	53	6	30	6	126	6	13
7	80	7	14	7	55	7	35	7	128	7	15
8	82	8	16	8	57	8	40	8	130	8	17
9	84	9	18	9	59	9	45	9	132	9	19
10	86	10	20	10	61	10	50	10	134	10	21

Теоретичні відомості

Хід роботи

Схема 1

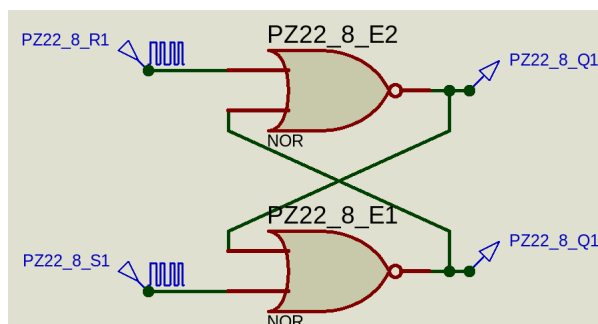


Рис. 1: Схема 1

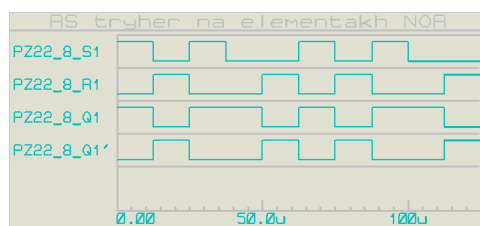


Рис. 2: Графік до схеми 1

Генератори до схеми 1

Generator Name: PZ22_8_R1

Initial State: Low

First Edge At (Secs): 0

Timing:

☒ Equal Mark/Space Timing?

Pulse width (Secs): 6.25u

"Space" Time (Secs):

Transitions:

☒ Continuous Sequence of Pulses

☐ Determine From Pattern Length

☐ Specific Number of Edges:

Bit Pattern:

☐ Standard High-Low Pulse Train

☒ Specific pulse train:

0011000011

Edit...

OK Cancel

(a)

Generator Name: PZ22_8_S1

Initial State: Low

First Edge At (Secs): 0

Timing:

☒ Equal Mark/Space Timing?

Pulse width (Secs): 6.25u

"Space" Time (Secs):

Transitions:

☒ Continuous Sequence of Pulses

☐ Determine From Pattern Length

☐ Specific Number of Edges:

Bit Pattern:

☐ Standard High-Low Pulse Train

☒ Specific pulse train:

1100110000

Edit...

OK Cancel

(6)

Схема 2

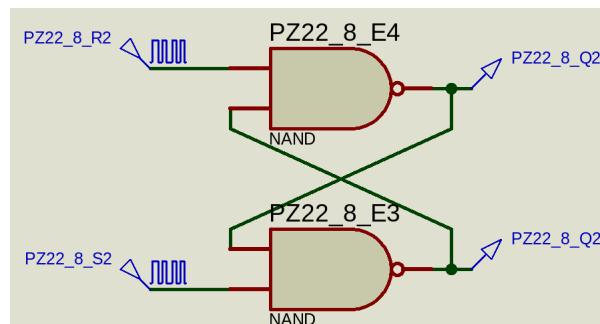


Рис. 3: Схема 2

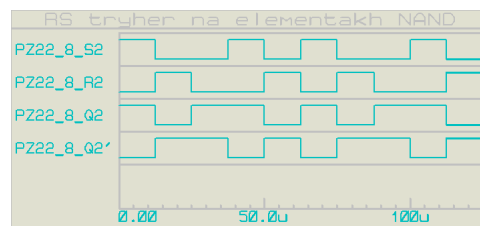


Рис. 4: Графік до схеми 2

Генератори до схеми 2

Generator Name: **PZ22_8_R2**

Initial State: Low

First Edge At (Secs): 0

Timing:

☒ Equal Mark/Space Timing?

Pulse width (Secs): 6.25u

'Space' Time (Secs):

Transitions:

☒ Continuous Sequence of Pulses

☐ Determine From Pattern Length

☐ Specific Number of Edges:

Bit Pattern:

☐ Standard High-Low Pulse Train

☒ Specific pulse train:

001100011

Edit...

OK Cancel

(a)

Generator Name: **PZ22_8_S2**

Initial State: Low

First Edge At (Secs): 0

Timing:

☒ Equal Mark/Space Timing?

Pulse width (Secs): 6.25u

'Space' Time (Secs):

Transitions:

☒ Continuous Sequence of Pulses

☐ Determine From Pattern Length

☐ Specific Number of Edges:

Bit Pattern:

☐ Standard High-Low Pulse Train

☒ Specific pulse train:

1100001100

Edit...

OK Cancel

(6)

Схема 3

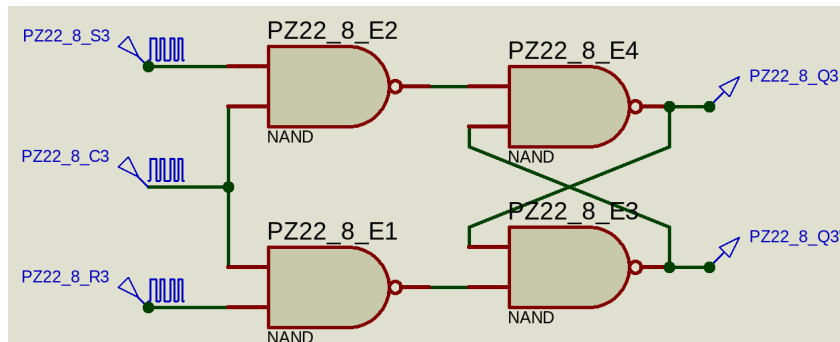


Рис. 5: Схема 3

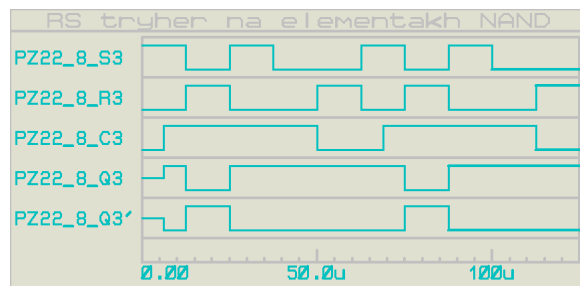


Рис. 6: Графік до схеми 3

Генератори до схеми 3

Generator Name: P222_8_S3

Initial State: Low

First Edge At (Secs): 0

Timing:

☒ Equal Mark/Space Timing?

Pulse width (Secs): 6.25u

'Space' Time (Secs):

Transitions:

☒ Continuous Sequence of Pulses

☐ Determine From Pattern Length

☐ Specific Number of Edges:

Bit Pattern:

☐ Standard High-Low Pulse Train

☒ Specific pulse train:

1100110000

Edit...

OK Cancel

(a)

Generator Name: P222_8_C3

Initial State: Low

First Edge At (Secs): 0

Timing:

☒ Equal Mark/Space Timing?

Pulse width (Secs): 6.25u

'Space' Time (Secs):

Transitions:

☒ Continuous Sequence of Pulses

☐ Determine From Pattern Length

☐ Specific Number of Edges:

Bit Pattern:

☐ Standard High-Low Pulse Train

☒ Specific pulse train:

0111111100

Edit...

OK Cancel

(6)

Generator Name: P222_8_R3

Initial State: Low

First Edge At (Secs): 0

Timing:

☒ Equal Mark/Space Timing?

Pulse width (Secs): 6.25u

'Space' Time (Secs):

Transitions:

☒ Continuous Sequence of Pulses

☐ Determine From Pattern Length

☐ Specific Number of Edges:

Bit Pattern:

☐ Standard High-Low Pulse Train

☒ Specific pulse train:

0011000011

Edit...

OK Cancel

(B)

Схема 4

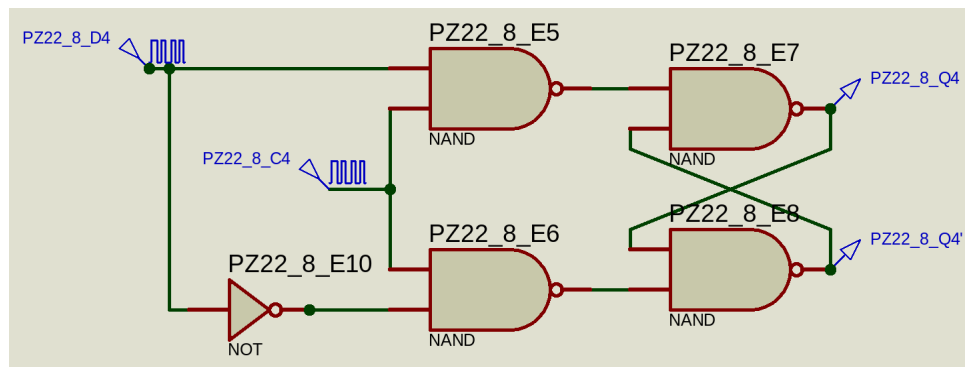


Рис. 7: Схема 4

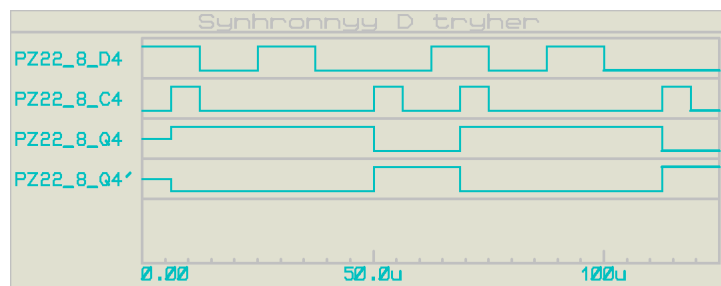


Рис. 8: Графік до схеми 4

Генератори до схеми 4

Generator Name: PZ22_8_D4

Initial State: Low

First Edge At (Secs): 0

Timing:

☒ Equal Mark/Space Timing?

Pulse width (Secs): 6.25u

'Space' Time (Secs):

Transitions:

☒ Continuous Sequence of Pulses

☐ Determine From Pattern Length

☐ Specific Number of Edges:

Bit Pattern:

☐ Standard High-Low Pulse Train

☒ Specific pulse train: 1100110000

OK Cancel

(a)

Generator Name: PZ22_8_C4

Initial State: Low

First Edge At (Secs): 0

Timing:

☒ Equal Mark/Space Timing?

Pulse width (Secs): 6.25u

'Space' Time (Secs):

Transitions:

☒ Continuous Sequence of Pulses

☐ Determine From Pattern Length

☐ Specific Number of Edges:

Bit Pattern:

☐ Standard High-Low Pulse Train

☒ Specific pulse train: 0100000010

OK Cancel

(6)

Схема 5

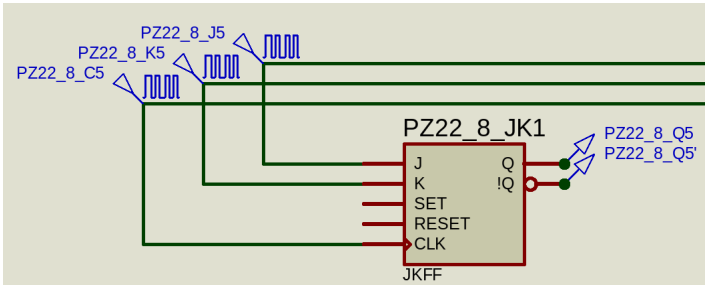


Рис. 9: Схема 5

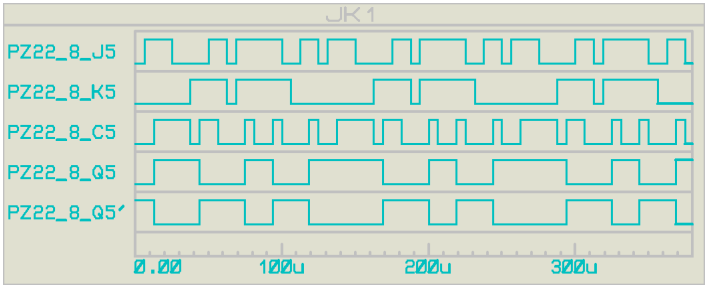


Рис. 10: Графік до схеми 5

Генератори до схеми 5

Generator Name: PZ22_8_J5

Initial State: Low

First Edge At (Secs): 0

Timing:

☒ Equal Mark/Space Timing?

Pulse width (Secs): 6.25u

'Space' Time (Secs):

Transitions:

☒ Continuous Sequence of Pulses

☐ Determine From Pattern Length

☐ Specific Number of Edges:

Bit Pattern:

☐ Standard High-Low Pulse Train

☒ Specific pulse train:

0111000011011110011

Edit...

OK Cancel

Analogue Types:

☐ DC

☐ Sine

☐ Pulse

☐ Pwlin

☐ File

☐ Audio

☐ Exponent

☐ SFFM

☐ Random

☐ Easy HDL

Digital Types:

☐ Steady State

☐ Single Edge

☐ Single Pulse

☐ Clock

☒ Pattern

☐ Easy HDL

☐ Current Source?

☐ Isolate Before?

☐ Manual Edits?

☒ Hide Properties?

(a)

Generator Name: PZ22_8_K5

Initial State: Low

First Edge At (Secs): 0

Timing:

☒ Equal Mark/Space Timing?

Pulse width (Secs): 6.25u

'Space' Time (Secs):

Transitions:

☒ Continuous Sequence of Pulses

☐ Determine From Pattern Length

☐ Specific Number of Edges:

Bit Pattern:

☐ Standard High-Low Pulse Train

☒ Specific pulse train:

00000011110111111000

Edit...

OK Cancel

Analogue Types:

☐ DC

☐ Sine

☐ Pulse

☐ Pwlin

☐ File

☐ Audio

☐ Exponent

☐ SFFM

☐ Random

☐ Easy HDL

Digital Types:

☐ Steady State

☐ Single Edge

☐ Single Pulse

☐ Clock

☒ Pattern

☐ Easy HDL

☐ Current Source?

☐ Isolate Before?

☐ Manual Edits?

☒ Hide Properties?

(6)

Generator Name: PZ22_8_C5

Initial State: Low

First Edge At (Secs): 0

Timing:

☒ Equal Mark/Space Timing?

Pulse width (Secs): 6.25u

'Space' Time (Secs):

Transitions:

☒ Continuous Sequence of Pulses

☐ Determine From Pattern Length

☐ Specific Number of Edges:

Bit Pattern:

☐ Standard High-Low Pulse Train

☒ Specific pulse train:

00111101100010010001

Edit...

OK Cancel

Analogue Types:

☐ DC

☐ Sine

☐ Pulse

☐ Pwlin

☐ File

☐ Audio

☐ Exponent

☐ SFFM

☐ Random

☐ Easy HDL

Digital Types:

☐ Steady State

☐ Single Edge

☐ Single Pulse

☐ Clock

☒ Pattern

☐ Easy HDL

☐ Current Source?

☐ Isolate Before?

☐ Manual Edits?

☒ Hide Properties?

(b)

Схема 6

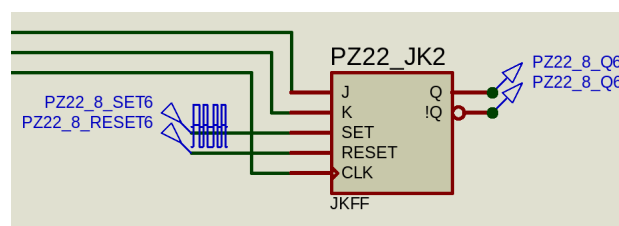


Рис. 11: Схема 6

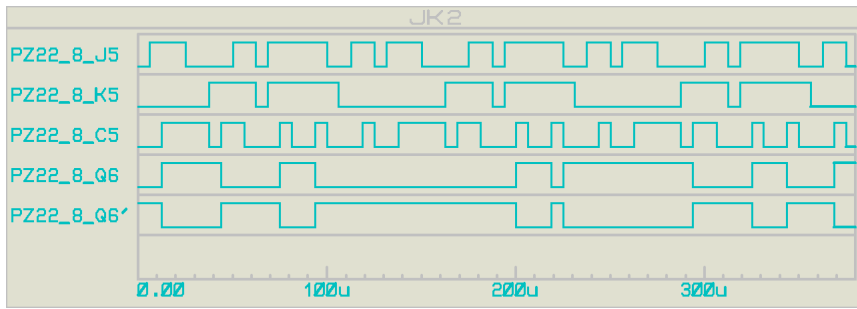


Рис. 12: Графік до схеми 6

Генератори до схеми 6

Generator Name: PZ22_8_SET6

Initial State: Low

First Edge At (Secs): 0

Timing:

☐ Equal Mark/Space Timing?

'Mark' Time (Secs): 62.5u

'Space' Time (Secs): 112.5u

Transitions:

☒ Continuous Sequence of Pulses

☐ Determine From Pattern Length

☐ Specific Number of Edges:

Bit Pattern:

☐ Standard High-Low Pulse Train

☒ Specific pulse train: 001000

Edit...

OK Cancel

(a)

Generator Name: PZ22_8_RESET6

Initial State: Low

First Edge At (Secs): 0

Timing:

☐ Equal Mark/Space Timing?

'Mark' Time (Secs): 62.5u

'Space' Time (Secs): 112.5u

Transitions:

☒ Continuous Sequence of Pulses

☐ Determine From Pattern Length

☐ Specific Number of Edges:

Bit Pattern:

☐ Standard High-Low Pulse Train

☒ Specific pulse train: 010000

Edit...

OK Cancel

(6)

Схема 7

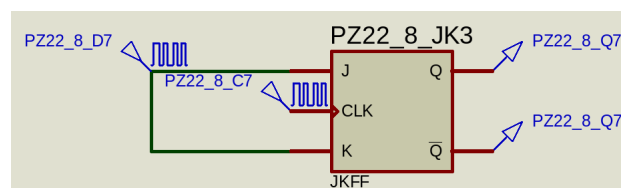


Рис. 13: Схема 7

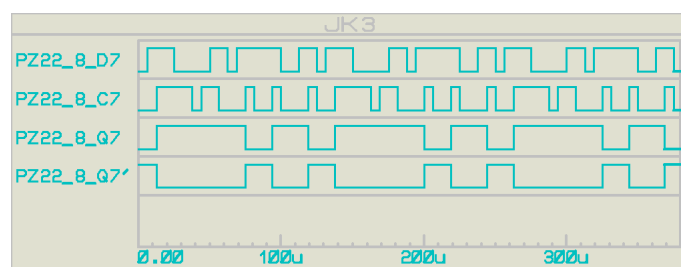


Рис. 14: Графік до схеми 7

Генератори до схеми 7

Generator Name: PZ22_8_D7

Initial State: Low

First Edge At (Secs): 0

Timing:

☒ Equal Mark/Space Timing?

Pulse width (Secs): 6.25u

'Space' Time (Secs):

Transitions:

☒ Continuous Sequence of Pulses

☐ Determine From Pattern Length

☐ Specific Number of Edges:

Bit Pattern:

☐ Standard High-Low Pulse Train

☒ Specific pulse train:

0111000011011110011

Edit...

OK Cancel

(a)

Generator Name: PZ22_8_C7

Initial State: Low

First Edge At (Secs): 0

Timing:

☒ Equal Mark/Space Timing?

Pulse width (Secs): 6.25u

'Space' Time (Secs):

Transitions:

☒ Continuous Sequence of Pulses

☐ Determine From Pattern Length

☐ Specific Number of Edges:

Bit Pattern:

☐ Standard High-Low Pulse Train

☒ Specific pulse train:

00111101100010010001

Edit...

OK Cancel

(6)

Схема 8

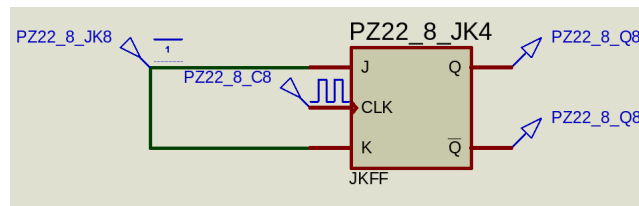


Рис. 15: Схема 8

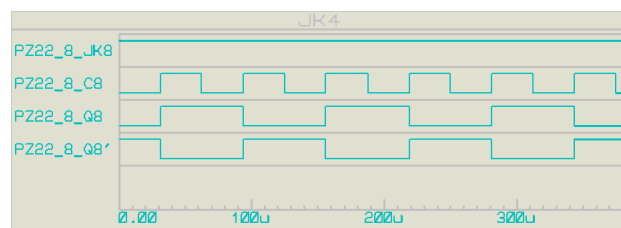


Рис. 16: Графік до схеми 8

Генератори до схеми 8

Generator Name:

P222_8_JK8

Analogue Types

☐ DC

☐ Sine

☐ Pulse

☐ Pwlin

☐ File

☐ Audio

☐ Exponent

☐ SFFM

☐ Random

☐ Easy HDL

Digital Types

☒ Steady State

☐ Single Edge

☐ Single Pulse

☐ Clock

☐ Pattern

☐ Easy HDL

☐ Current Source?

☐ Isolate Before?

☐ Manual Edits?

☒ Hide Properties?

State

☐ Power Rail High

☒ Strong High

☐ Weak High

☐ Floating

☐ Weak Low

☐ Strong Low

☐ Power Rail Low

OK

Cancel

(a)

Generator Name:

P222_8_C8

Analogue Types

☐ DC

☐ Sine

☐ Pulse

☐ Pwlin

☐ File

☐ Audio

☐ Exponent

☐ SFFM

☐ Random

☐ Easy HDL

Digital Types

☐ Steady State

☐ Single Edge

☐ Single Pulse

☒ Clock

☐ Pattern

☐ Easy HDL

☐ Current Source?

☐ Isolate Before?

☐ Manual Edits?

☒ Hide Properties?

Clock Type

☒ Low-High-Low Clock

☐ High-Low-High Clock

Timing:

First Edge At:

0

☒ Frequency (Hz):

16k

☐ Period (Secs):

OK

Cancel

(6)

Висновки