

## Практическая работа №5

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Вариант №15

Дана функция:  $A \vee (\bar{B} \wedge \bar{C}) \vee (A \wedge B \wedge C) \vee (\bar{A} \wedge \bar{B} \wedge \bar{C} \wedge \bar{D})$

№	A	B	C	D	F <sub>1</sub>	F <sub>2</sub>	F <sub>3</sub>	F	СДНФ	СКНФ
0	0	0	0	0	1	0	1	1	1	0
1	0	0	0	1	1	0	0	0	1	0
2	0	0	1	0	0	0	0	0	0	1
3	0	0	1	1	0	0	0	0	0	1
4	0	1	0	0	0	0	0	0	0	1
5	0	1	0	1	0	0	0	0	0	1
6	0	1	1	0	0	0	0	0	0	1
7	0	1	1	1	0	0	0	0	0	1
8	1	0	0	0	1	0	0	0	1	0
9	1	0	0	1	1	0	0	0	1	0
10	1	0	1	0	0	0	0	0	1	0
11	1	0	1	1	0	0	0	0	1	0
12	1	1	0	0	0	0	0	0	1	0
13	1	1	0	1	0	0	0	0	1	0
14	1	1	1	0	0	1	0	0	1	0
15	1	1	1	1	0	1	0	0	1	0

Таблица 1: Таблица истинности

Формулы:

СДНФ:  $F = (\bar{A} \wedge \bar{B} \wedge \bar{C} \wedge \bar{D}) \vee (\bar{A} \wedge \bar{B} \wedge \bar{C} \wedge \bar{D}) \vee (\bar{A} \wedge \bar{B} \wedge \bar{C} \wedge D) \vee (\bar{A} \wedge B \wedge C \wedge D) \vee (A \wedge \bar{B} \wedge \bar{C} \wedge \bar{D}) \vee (A \wedge B \wedge \bar{C} \wedge \bar{D}) \vee (A \wedge B \wedge \bar{C} \wedge D)$

СКНФ:

$F = (A \wedge B \wedge C \wedge \bar{D}) \vee (A \wedge B \wedge \bar{C} \wedge D) \vee (A \wedge B \wedge \bar{C} \wedge \bar{D}) \vee (A \wedge \bar{B} \wedge \bar{C} \wedge D) \vee (\bar{A} \wedge B \wedge C \wedge \bar{D}) \vee (\bar{A} \wedge B \wedge \bar{C} \wedge D) \vee (\bar{A} \wedge B \wedge \bar{C} \wedge \bar{D}) \vee (\bar{A} \wedge \bar{B} \wedge \bar{C} \wedge D) \vee (\bar{A} \wedge \bar{B} \wedge \bar{C} \wedge \bar{D})$

$F = \sum_{i=0}^{15} (0, 1, 8, 9, 10, 11, 12, 13, 14, 15)$

$F = \prod_{i=0}^{15} (2, 3, 4, 5, 6, 7)$

Карты карно

СДНФ:

		$C$	
		$D$	
$A$	$B$	1	1
		1	1
	$B$	0	0
		0	1

СКНФ:

		$C$	
		$D$	
$A$	$B$	0	0
		0	0
	$B$	1	1
		1	0