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| 19 | 43 | 0101011 | Пупов Нікіта |

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| --- | --- | --- | --- | --- | --- |
| A1 | A2 | A3 | A4 | A5 | A6 |
| 1 | 1 | 0 | 1 | 0 | 1 |

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| --- | --- | --- | --- | --- | --- |
| 3 | 2 | 1 | Мікрооперації | | |
| Номер пункту завдання | | |
| 1 (СС) | 2 (СА) | 3 (АА) |
| 0 | 1 | 1 | y1, y3, y7 | y3, y5 | Y2, y6 |

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| 6 | 5 | 4 | Логічні елементи | | |
| Номер пункту завдання | | |
| 1 | 2 | 3 |
| 1 | 0 | 1 | 2АБО-НІ | 2І, 3АБО-НІ | 3І-НІ |

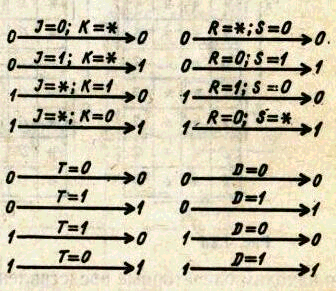
y1 - зсув вліво на один розряд; y2 - зсуву вправо на один розряд; y3 - прийом слова паралельним кодом; y4 - диз'юнкція; y5 - кон’юнкція; y6 - нерівнозначність ( - додавання по модулю два); y7 - рівнозначність ( - еквівалентність); y8 - інвертування розрядів.

CC)( 2АБО-НІ)

00= y1 - зсув вліво на один розряд

01= y3 - прийом слова паралельним кодом

10= y7 - рівнозначність ( - еквівалентність)



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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| S1S | S2S | DiS | QSi+1 | QiS | QiS+1 | Dі’ | Rі | Sі | Jі | Kі | Ti |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | \* | 0 | 0 | \* | 0 |
| 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | \* | 1 | 1 |
| 0 | 0 | 0 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | \* | 1 |
| 0 | 0 | 0 | 1 | 1 | 1 | 1 | 0 | \* | \* | 0 | 0 |
| 0 | 0 | 1 | 0 | 0 | 0 | 0 | \* | 0 | 0 | \* | 0 |
| 0 | 0 | 1 | 0 | 1 | 0 | 0 | 1 | 0 | \* | 1 | 1 |
| 0 | 0 | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | \* | 1 |
| 0 | 0 | 1 | 1 | 1 | 1 | 1 | 0 | \* | \* | 0 | 0 |
| 0 | 1 | 0 | 0 | 0 | 0 | 0 | \* | 0 | 0 | \* | 0 |
| 0 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | \* | 1 | 1 |
| 0 | 1 | 0 | 1 | 0 | 0 | 0 | \* | 0 | 0 | \* | 0 |
| 0 | 1 | 0 | 1 | 1 | 0 | 0 | 1 | 0 | \* | 1 | 1 |
| 0 | 1 | 1 | 0 | 0 | 1 | 1 | 0 | 1 | 1 | \* | 1 |
| 0 | 1 | 1 | 0 | 1 | 1 | 1 | 0 | \* | \* | 0 | 0 |
| 0 | 1 | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | \* | 1 |
| 0 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | \* | \* | 0 | 0 |
| 1 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 1 | 1 | \* | 1 |
| 1 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | \* | 1 | 1 |
| 1 | 0 | 0 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | \* | 1 |
| 1 | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 0 | \* | 1 | 1 |
| 1 | 0 | 1 | 0 | 0 | 0 | 0 | \* | 0 | 0 | \* | 0 |
| 1 | 0 | 1 | 0 | 1 | 1 | 1 | 0 | \* | \* | 0 | 0 |
| 1 | 0 | 1 | 1 | 0 | 0 | 0 | \* | 0 | 0 | \* | 0 |
| 1 | 0 | 1 | 1 | 1 | 1 | 1 | 0 | \* | \* | 0 | 0 |
| 1 | 1 | 0 | 0 | 0 | \* | \* | \* | \* | \* | \* | \* |
| 1 | 1 | 0 | 0 | 1 | \* | \* | \* | \* | \* | \* | \* |
| 1 | 1 | 0 | 1 | 0 | \* | \* | \* | \* | \* | \* | \* |
| 1 | 1 | 0 | 1 | 1 | \* | \* | \* | \* | \* | \* | \* |
| 1 | 1 | 1 | 0 | 0 | \* | \* | \* | \* | \* | \* | \* |
| 1 | 1 | 1 | 0 | 1 | \* | \* | \* | \* | \* | \* | \* |
| 1 | 1 | 1 | 1 | 0 | \* | \* | \* | \* | \* | \* | \* |
| 1 | 1 | 1 | 1 | 1 | \* | \* | \* | \* | \* | \* | \* |

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

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| \* | \* | \* | \* |  |
|  | 1 | 1 | 0 | 0 |
| 1 | 1 | 0 | 0 |  |
|  |  | 0 | 1 | 0 | 1 |  |
| 0 | 1 | 0 | 1 |  |
|  | 1 | 1 | 1 | 1 |
| 0 | 0 | 0 | 0 |  |
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2)R

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|  |  | \* | \* | \* | \* |  |
| \* | \* | \* | \* |  |
|  | 0 | 0 | 1 | \* |
| 0 | 0 | 1 | \* |  |
|  |  | \* | 0 | 1 | 0 |  |
| \* | 0 | 1 | 0 |  |
|  | 0 | 0 | 0 | 0 |
| \* | 1 | 1 | \* |  |
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3)S

|  |  |  |  |  |  |  |
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|  |  | \* | \* | \* | \* |  |
| \* | \* | \* | \* |  |
|  | 1 | \* | 0 | 0 |
| 1 | \* | 0 | 0 |  |
|  |  | 0 | \* | 0 | 1 |  |
| 0 | \* | 0 | 1 |  |
|  | 1 | \* | \* | 1 |
| 0 | 0 | 0 | 0 |  |
|  |  |  |  | |  |  |

4)J

|  |  |  |  |  |  |  |
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|  |  | \* | \* | \* | \* |  |
| \* | \* | \* | \* |  |
|  | 1 | \* | \* | 0 |
| 1 | \* | \* | 0 |  |
|  |  | 0 | \* | \* | 1 |  |
| 0 | \* | \* | 1 |  |
|  | 1 | \* | \* | 1 |
| 0 | \* | \* | 0 |  |
|  |  |  |  | |  |  |

5)K

|  |  |  |  |  |  |  |
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| \* | \* | \* | \* |  |
|  | \* | 0 | 1 | \* |
| \* | 0 | 1 | \* |  |
|  |  | \* | 0 | 1 | \* |  |
| \* | 0 | 1 | \* |  |
|  | \* | 0 | 0 | \* |
| \* | 1 | 1 | \* |  |
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6)T

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| \* | \* | \* | \* |  |
|  | 1 | 0 | 1 | 0 |
| 1 | 0 | 1 | 0 |  |
|  |  | 0 | 0 | 1 | 1 |  |
| 0 | 0 | 1 | 1 |  |
|  | 1 | 0 | 0 | 1 |
| 0 | 1 | 1 | 0 |  |
|  |  |  |  | |  |  |

2)CA(2І, 3АБО-НІ)

S=0= y3 - прийом слова паралельним кодом

S=1= y5 - кон’юнкція

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | SS | DiS | QiS | QiS+1 | T | Rі | Sі | J | K | D |
| 0 | 0 | 0 | 0 | 0 | 0 | \* | 0 | 0 | \* | 0 |
| 0 | 0 | 0 | 1 | 1 | 0 | 0 | \* | \* | 0 | 1 |
| 0 | 0 | 1 | 0 | 0 | 0 | \* | 0 | 0 | \* | 0 |
| 0 | 0 | 1 | 1 | 1 | 0 | 0 | \* | \* | 0 | 1 |
| 0 | 1 | 0 | 0 | 0 | 0 | \* | 0 | 0 | \* | 0 |
| 0 | 1 | 0 | 1 | 1 | 0 | 0 | \* | \* | 0 | 1 |
| 0 | 1 | 1 | 0 | 0 | 0 | \* | 0 | 0 | \* | 0 |
| 0 | 1 | 1 | 1 | 1 | 0 | 0 | \* | \* | 0 | 1 |
| 1 | 0 | 0 | 0 | 0 | 0 | \* | 0 | 0 | \* | 0 |
| 1 | 0 | 0 | 1 | 0 | 1 | 1 | 0 | 1 | \* | 0 |
| 1 | 0 | 1 | 0 | 1 | 1 | 0 | 1 | \* | 0 | 1 |
| 1 | 0 | 1 | 1 | 1 | 0 | 0 | \* | \* | 1 | 1 |
| 1 | 1 | 0 | 0 | 0 | 0 | \* | 0 | 0 | \* | 0 |
| 1 | 1 | 0 | 1 | 0 | 1 | 1 | 0 | \* | 1 | 0 |
| 1 | 1 | 1 | 0 | 0 | 0 | \* | 0 | 0 | \* | 0 |
| 1 | 1 | 1 | 1 | 1 | 0 | 0 | \* | \* | 0 | 1 |

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  |  | | |  | |  |
| S | 6 | 14 | 12 | | 4 | |  |
| 7 | 15 | 13 | | 5 | |  |
|  | 3 | 11 | 9 | | 1 | |
| 2 | 10 | 8 | | 0 | |  |
|  | C | | |  | |

1)T

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  |  | | |  | |  |
| S | 0 | 0 | 0 | | 0 | |  |
| 0 | 0 | 1 | | 0 | |  |
|  | 0 | 0 | 1 | | 0 | |
| 0 | 1 | 0 | | 0 | |  |
|  | C | | |  | |

2)R

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  |  | | |  | |  |
| S | \* | \* | \* | | \* | |  |
| 0 | 0 | 1 | | 0 | |  |
|  | 0 | 0 | 1 | | 0 | |
| \* | 0 | \* | | \* | |  |
|  | C | | |  | |

S)

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  |  | | |  | |  |
| S | 0 | 0 | 0 | | 0 | |  |
| \* | \* | 0 | | \* | |  |
|  | \* | \* | 0 | | \* | |
| 0 | 1 | 0 | | 0 | |  |
|  | C | | |  | |

D)

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  |  | | |  | |  |
| S | 0 | 0 | 0 | | 0 | |  |
| 1 | 1 | 0 | | 1 | |  |
|  | 1 | 1 | 0 | | 1 | |
| 0 | 1 | 0 | | 0 | |  |
|  | C | | |  | |

J)

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  |  | | |  | |  |
| S | 0 | 0 | 0 | | 0 | |  |
| \* | \* | \* | | \* | |  |
|  | \* | \* | 1 | | \* | |
| 0 | \* | 0 | | 0 | |  |
|  | C | | |  | |

K)

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  |  | | |  | |  |
| S | \* | \* | \* | | \* | |  |
| 0 | 0 | 1 | | 0 | |  |
|  | 0 | 1 | \* | | 0 | |
| \* | 0 | \* | | \* | |  |
|  | C | | |  | |

3)АА (3І-НІ)

Y1 = 1 - зсуву вправо на один розряд

Y2 = 1 - нерівнозначність ( - додавання по модулю два)

|  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| y1S | y2S | Qi-1S | DSi | QiS | QіS+1 | Tі | Rі | Sі | J | K |  |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | \* | 0 | 0 | \* | 0 |
| 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | \* | \* | 0 | 1 |
| 0 | 0 | 0 | 1 | 0 | 0 | 0 | \* | 0 | 0 | \* | 0 |
| 0 | 0 | 0 | 1 | 1 | 1 | 0 | 0 | \* | \* | 0 | 1 |
| 0 | 0 | 1 | 0 | 0 | 0 | 0 | \* | 0 | 0 | \* | 0 |
| 0 | 0 | 1 | 0 | 1 | 1 | 0 | 0 | \* | \* | 0 | 1 |
| 0 | 0 | 1 | 1 | 0 | 0 | 0 | \* | 0 | 0 | \* | 0 |
| 0 | 0 | 1 | 1 | 1 | 1 | 0 | 0 | \* | \* | 0 | 1 |
| 0 | 1 | 0 | 0 | 0 | 0 | 0 | \* | 0 | 0 | \* | 0 |
| 0 | 1 | 0 | 0 | 1 | 1 | 0 | 0 | \* | \* | 0 | 1 |
| 0 | 1 | 0 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | \* | 1 |
| 0 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 0 | \* | 1 | 0 |
| 0 | 1 | 1 | 0 | 0 | 0 | 0 | \* | 0 | 0 | \* | 0 |
| 0 | 1 | 1 | 0 | 1 | 1 | 0 | 0 | \* | \* | 0 | 1 |
| 0 | 1 | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | \* | 1 |
| 0 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 0 | \* | 1 | 0 |
| 1 | 0 | 0 | 0 | 0 | 0 | 0 | \* | 0 | 0 | \* | 0 |
| 1 | 0 | 0 | 0 | 1 | 0 | 1 | 1 | 0 | \* | 1 | 0 |
| 1 | 0 | 0 | 1 | 0 | 0 | 0 | \* | 0 | 0 | \* | 0 |
| 1 | 0 | 0 | 1 | 1 | 0 | 1 | 1 | 0 | \* | 1 | 0 |
| 1 | 0 | 1 | 0 | 0 | 1 | 1 | 0 | 1 | 1 | \* | 1 |
| 1 | 0 | 1 | 0 | 1 | 1 | 0 | 0 | \* | \* | 0 | 1 |
| 1 | 0 | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | \* | 1 |
| 1 | 0 | 1 | 1 | 1 | 1 | 0 | 0 | \* | \* | 0 | 1 |
| 1 | 1 | 0 | 0 | 0 | \* | \* | \* | \* | \* | \* | \* |
| 1 | 1 | 0 | 0 | 1 | \* | \* | \* | \* | \* | \* | \* |
| 1 | 1 | 0 | 1 | 0 | \* | \* | \* | \* | \* | \* | \* |
| 1 | 1 | 0 | 1 | 1 | \* | \* | \* | \* | \* | \* | \* |
| 1 | 1 | 1 | 0 | 0 | \* | \* | \* | \* | \* | \* | \* |
| 1 | 1 | 1 | 0 | 1 | \* | \* | \* | \* | \* | \* | \* |
| 1 | 1 | 1 | 1 | 1 | \* | \* | \* | \* | \* | \* | \* |
| 1 | 1 | 1 | 1 | 1 | \* | \* | \* | \* | \* | \* | \* |

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| 30 | 31 | 27 | 26 |  |
|  | 14 | 15 | 11 | 10 |
| 12 | 13 | 9 | 8 |  |
|  |  | 20 | 21 | 17 | 16 |  |
| 22 | 23 | 19 | 18 |  |
|  | 6 | 7 | 3 | 2 |
| 4 | 5 | 1 | 0 |  |
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T)

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| \* | \* | \* | \* |  |
|  | 1 | 1 | 1 | 1 |
| 0 | 0 | 0 | 0 |  |
|  |  | 1 | 0 | 1 | 0 |  |
| 1 | 0 | 1 | 0 |  |
|  | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 |  |
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D)

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|  | 1 | 0 | 0 | 1 |
| 0 | 1 | 1 | 0 |  |
|  |  | 1 | 1 | 0 | 0 |  |
| 1 | 1 | 0 | 0 |  |
|  | 0 | 1 | 1 | 0 |
| 0 | 1 | 1 | 0 |  |
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R)

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|  | 0 | 1 | 1 | 0 |
| \* | 0 | 0 | \* |  |
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J)

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K)

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| \* | 0 | 1 | \* |  |
|  | \* | 0 | 0 | \* |
| \* | 0 | 0 | \* |  |
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