

Задания к расчетной работе № 2 по курсу "Надежная передача данных"

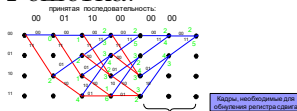
19 октября 2019 г.

Задан двоичный сверточный код с порождающими многочленами $g^{(1)}(x), g^{(2)}(x)$. Кодовые слова представляют собой последовательности $(c_0^{(1)}, c_0^{(2)}, c_1^{(1)}, c_1^{(2)}, c_2^{(1)}, c_2^{(2)}, \dots)$, где $c^{(i)}(x) = \sum_j c_j^{(i)} x^j = a(x)g^{(i)}(x), i = 1, 2$, где $a(x) = \sum_i a_i x^i$. Регистр сдвига, реализующий кодер, после окончания подачи информационных символов a_i обнуляется путем подачи фиксированного числа нулевых символов.

Необходимо декодировать по максимуму правдоподобия нижеприведенные последовательности $y = (y_0^{(1)}, y_0^{(2)}, y_1^{(1)}, y_1^{(2)}, \dots)$ в метрике Хемминга, где $y_j^{(i)} = c_j^{(i)} + e_{2j+i-1}$. В ответе указать номера ошибочных символов (нумерация с нуля), т.е. такие числа t , что $e_t \neq 0$, и информационные последовательности (a_0, a_1, \dots) , соответствующие восстановленным кодовым словам, (не включая символы, использованные для обнуления регистра сдвига). Кроме того, необходимо привести решетку рассматриваемого кода с промежуточными результатами алгоритма Витерби.

Пример оформления ответа:

- Иванов Иван Иванович, гр. 12345
- Вариант 0
- Ошибки в позициях 0,5,10,15.
- Информационная последовательность 01010101
- Решетка:



До 9.11 за правильно выполненное задание начисляются 10 баллов. Далее до 25.11 за правильно выполненное задание начисляются 5 баллов. После этой даты ответы не принимаются. Решения присылать преподавателю, ведущему практические занятия, с темой письма CodingTask2.

Номер варианта указан в журнале курса.

1. $g^{(1)}(x) = 1 + x^3 + x^4, g^{(2)}(x) = 1 + x^1 + x^2 + x^4; y = (1101101111000011100101011100)$
2. $g^{(1)}(x) = 1 + x^3 + x^4, g^{(2)}(x) = 1 + x^1 + x^2 + x^4; y = (0101010010101110101100100000)$
3. $g^{(1)}(x) = 1 + x^3 + x^4, g^{(2)}(x) = 1 + x^1 + x^2 + x^4; y = (0011101110111100111100011011)$
4. $g^{(1)}(x) = 1 + x^3 + x^4, g^{(2)}(x) = 1 + x^1 + x^2 + x^4; y = (1110111000010011000010101001)$
5. $g^{(1)}(x) = 1 + x^3 + x^4, g^{(2)}(x) = 1 + x^1 + x^2 + x^4; y = (0110000011100000010111101011)$
6. $g^{(1)}(x) = 1 + x^3 + x^4, g^{(2)}(x) = 1 + x^1 + x^2 + x^4; y = (0100011001001100011001000111)$
7. $g^{(1)}(x) = 1 + x^3 + x^4, g^{(2)}(x) = 1 + x^1 + x^2 + x^4; y = (0000100111010111100100101011)$
8. $g^{(1)}(x) = 1 + x^3 + x^4, g^{(2)}(x) = 1 + x^1 + x^2 + x^4; y = (0001001101100000101100111111)$
9. $g^{(1)}(x) = 1 + x^3 + x^4, g^{(2)}(x) = 1 + x^1 + x^2 + x^4; y = (0011100000111100011111101010)$
10. $g^{(1)}(x) = 1 + x^3 + x^4, g^{(2)}(x) = 1 + x^1 + x^2 + x^4; y = (1110011101110110101000011100)$
11. $g^{(1)}(x) = 1 + x^3 + x^4, g^{(2)}(x) = 1 + x^1 + x^2 + x^4; y = (0000111011110100101001111110)$
12. $g^{(1)}(x) = 1 + x^3 + x^4, g^{(2)}(x) = 1 + x^1 + x^2 + x^4; y = (0001000010011011011110111100)$
13. $g^{(1)}(x) = 1 + x^3 + x^4, g^{(2)}(x) = 1 + x^1 + x^2 + x^4; y = (0011011011000110001101110000)$
14. $g^{(1)}(x) = 1 + x^3 + x^4, g^{(2)}(x) = 1 + x^1 + x^2 + x^4; y = (0111110101111100010100001100)$
15. $g^{(1)}(x) = 1 + x^3 + x^4, g^{(2)}(x) = 1 + x^1 + x^2 + x^4; y = (1100001010101000110000101111)$
16. $g^{(1)}(x) = 1 + x^3 + x^4, g^{(2)}(x) = 1 + x^1 + x^2 + x^4; y = (1110111110011000000000000000)$
17. $g^{(1)}(x) = 1 + x^3 + x^4, g^{(2)}(x) = 1 + x^1 + x^2 + x^4; y = (0011001011100010110011110111)$
18. $g^{(1)}(x) = 1 + x^3 + x^4, g^{(2)}(x) = 1 + x^1 + x^2 + x^4; y = (0000001101100000011001010100)$
19. $g^{(1)}(x) = 1 + x^3 + x^4, g^{(2)}(x) = 1 + x^1 + x^2 + x^4; y = (1111100110010110000010101100)$
20. $g^{(1)}(x) = 1 + x^3 + x^4, g^{(2)}(x) = 1 + x^1 + x^2 + x^4; y = (1011101110110010100011010011)$
21. $g^{(1)}(x) = 1 + x^3 + x^4, g^{(2)}(x) = 1 + x^1 + x^2 + x^4; y = (0000111110111000011101000000)$
22. $g^{(1)}(x) = 1 + x^3 + x^4, g^{(2)}(x) = 1 + x^1 + x^2 + x^4; y = (0001101101101101000011000000)$
23. $g^{(1)}(x) = 1 + x^3 + x^4, g^{(2)}(x) = 1 + x^1 + x^2 + x^4; y = (1101101101110100001100010000)$
24. $g^{(1)}(x) = 1 + x^3 + x^4, g^{(2)}(x) = 1 + x^1 + x^2 + x^4; y = (1100001110011011011100010000)$
25. $g^{(1)}(x) = 1 + x^3 + x^4, g^{(2)}(x) = 1 + x^1 + x^2 + x^4; y = (0000001100100011101101110111)$
26. $g^{(1)}(x) = 1 + x^3 + x^4, g^{(2)}(x) = 1 + x^1 + x^2 + x^4; y = (1010011000111111111101011011)$
27. $g^{(1)}(x) = 1 + x^3 + x^4, g^{(2)}(x) = 1 + x^1 + x^2 + x^4; y = (0011100011101010101110110001)$
28. $g^{(1)}(x) = 1 + x^3 + x^4, g^{(2)}(x) = 1 + x^1 + x^2 + x^4; y = (0011010101010101101001101011)$

29. $g^{(1)}(x) = 1 + x^3 + x^4, g^{(2)}(x) = 1 + x^1 + x^2 + x^4; y = (1101011101001111101011111011)$
30. $g^{(1)}(x) = 1 + x^3 + x^4, g^{(2)}(x) = 1 + x^1 + x^2 + x^4; y = (1101100011110010101100101000)$
31. $g^{(1)}(x) = 1 + x^1 + x^4, g^{(2)}(x) = 1 + x^1 + x^3 + x^4; y = (00111110110000101001000011100)$
32. $g^{(1)}(x) = 1 + x^1 + x^4, g^{(2)}(x) = 1 + x^1 + x^3 + x^4; y = (1100111001111010101011101100)$
33. $g^{(1)}(x) = 1 + x^1 + x^4, g^{(2)}(x) = 1 + x^1 + x^3 + x^4; y = (0100000000101111000111100000)$
34. $g^{(1)}(x) = 1 + x^1 + x^4, g^{(2)}(x) = 1 + x^1 + x^3 + x^4; y = (11101110110000001001000111100)$
35. $g^{(1)}(x) = 1 + x^1 + x^4, g^{(2)}(x) = 1 + x^1 + x^3 + x^4; y = (1111111011010000010001000111)$
36. $g^{(1)}(x) = 1 + x^1 + x^4, g^{(2)}(x) = 1 + x^1 + x^3 + x^4; y = (0000110011101011011100101000)$
37. $g^{(1)}(x) = 1 + x^1 + x^4, g^{(2)}(x) = 1 + x^1 + x^3 + x^4; y = (1111101011011111110011011011)$
38. $g^{(1)}(x) = 1 + x^1 + x^4, g^{(2)}(x) = 1 + x^1 + x^3 + x^4; y = (1111110000011111110001110111)$
39. $g^{(1)}(x) = 1 + x^1 + x^4, g^{(2)}(x) = 1 + x^1 + x^3 + x^4; y = (1011111010010010110001101100)$
40. $g^{(1)}(x) = 1 + x^1 + x^4, g^{(2)}(x) = 1 + x^1 + x^3 + x^4; y = (1111100101110000101011110000)$
41. $g^{(1)}(x) = 1 + x^1 + x^4, g^{(2)}(x) = 1 + x^1 + x^3 + x^4; y = (0111000111110001101000010011)$
42. $g^{(1)}(x) = 1 + x^1 + x^4, g^{(2)}(x) = 1 + x^1 + x^3 + x^4; y = (1111001010000110010101010110)$
43. $g^{(1)}(x) = 1 + x^1 + x^4, g^{(2)}(x) = 1 + x^1 + x^3 + x^4; y = (1111001011000110010101000101)$
44. $g^{(1)}(x) = 1 + x^1 + x^4, g^{(2)}(x) = 1 + x^1 + x^3 + x^4; y = (0110000000001111100100011011)$
45. $g^{(1)}(x) = 1 + x^1 + x^4, g^{(2)}(x) = 1 + x^1 + x^3 + x^4; y = (0011111101001011110101001111)$
46. $g^{(1)}(x) = 1 + x^1 + x^4, g^{(2)}(x) = 1 + x^1 + x^3 + x^4; y = (1100010110100110101100001010)$
47. $g^{(1)}(x) = 1 + x^1 + x^4, g^{(2)}(x) = 1 + x^1 + x^3 + x^4; y = (1000000011000011100110101000)$
48. $g^{(1)}(x) = 1 + x^1 + x^4, g^{(2)}(x) = 1 + x^1 + x^3 + x^4; y = (0011110101111111111110110111)$
49. $g^{(1)}(x) = 1 + x^1 + x^4, g^{(2)}(x) = 1 + x^1 + x^3 + x^4; y = (0000111111010011111110101001)$
50. $g^{(1)}(x) = 1 + x^1 + x^4, g^{(2)}(x) = 1 + x^1 + x^3 + x^4; y = (0011010000100100000111001000)$
51. $g^{(1)}(x) = 1 + x^1 + x^4, g^{(2)}(x) = 1 + x^1 + x^3 + x^4; y = (1100100100001101101101110000)$
52. $g^{(1)}(x) = 1 + x^1 + x^4, g^{(2)}(x) = 1 + x^1 + x^3 + x^4; y = (1100001100111101011010110000)$
53. $g^{(1)}(x) = 1 + x^1 + x^4, g^{(2)}(x) = 1 + x^1 + x^3 + x^4; y = (1111001000110111010111111110)$
54. $g^{(1)}(x) = 1 + x^1 + x^4, g^{(2)}(x) = 1 + x^1 + x^3 + x^4; y = (0011001110011110101001100000)$
55. $g^{(1)}(x) = 1 + x^1 + x^4, g^{(2)}(x) = 1 + x^1 + x^3 + x^4; y = (0000010011000000101001101111)$
56. $g^{(1)}(x) = 1 + x^1 + x^4, g^{(2)}(x) = 1 + x^1 + x^3 + x^4; y = (0000100000011011010111011110)$

57. $g^{(1)}(x) = 1 + x^1 + x^4, g^{(2)}(x) = 1 + x^1 + x^3 + x^4; y = (1100011001001010010011100111)$
58. $g^{(1)}(x) = 1 + x^1 + x^4, g^{(2)}(x) = 1 + x^1 + x^3 + x^4; y = (0000111100110100100000001100)$
59. $g^{(1)}(x) = 1 + x^1 + x^4, g^{(2)}(x) = 1 + x^1 + x^3 + x^4; y = (00001111010101111001011101100)$
60. $g^{(1)}(x) = 1 + x^1 + x^4, g^{(2)}(x) = 1 + x^1 + x^3 + x^4; y = (0011111100110011110011010011)$
61. $g^{(1)}(x) = 1 + x^1 + x^4, g^{(2)}(x) = 1 + x^2 + x^3 + x^4; y = (0000110110100001111011110000)$
62. $g^{(1)}(x) = 1 + x^1 + x^4, g^{(2)}(x) = 1 + x^2 + x^3 + x^4; y = (0010100101001000101010101011)$
63. $g^{(1)}(x) = 1 + x^1 + x^4, g^{(2)}(x) = 1 + x^2 + x^3 + x^4; y = (0000100001101101001001011100)$
64. $g^{(1)}(x) = 1 + x^1 + x^4, g^{(2)}(x) = 1 + x^2 + x^3 + x^4; y = (011001111110111110010001100)$
65. $g^{(1)}(x) = 1 + x^1 + x^4, g^{(2)}(x) = 1 + x^2 + x^3 + x^4; y = (0100100000111010110111101111)$
66. $g^{(1)}(x) = 1 + x^1 + x^4, g^{(2)}(x) = 1 + x^2 + x^3 + x^4; y = (0011010010110111101110110000)$
67. $g^{(1)}(x) = 1 + x^1 + x^4, g^{(2)}(x) = 1 + x^2 + x^3 + x^4; y = (0011000110001000111011111100)$
68. $g^{(1)}(x) = 1 + x^1 + x^4, g^{(2)}(x) = 1 + x^2 + x^3 + x^4; y = (1001000111011111101100101100)$
69. $g^{(1)}(x) = 1 + x^1 + x^4, g^{(2)}(x) = 1 + x^2 + x^3 + x^4; y = (1001101011010011101010110000)$
70. $g^{(1)}(x) = 1 + x^1 + x^4, g^{(2)}(x) = 1 + x^2 + x^3 + x^4; y = (0001001110101111110111110111)$
71. $g^{(1)}(x) = 1 + x^1 + x^4, g^{(2)}(x) = 1 + x^2 + x^3 + x^4; y = (0011100001110011100001111000)$
72. $g^{(1)}(x) = 1 + x^1 + x^4, g^{(2)}(x) = 1 + x^2 + x^3 + x^4; y = (0000001110010110111111000011)$
73. $g^{(1)}(x) = 1 + x^1 + x^4, g^{(2)}(x) = 1 + x^2 + x^3 + x^4; y = (1110011110101000100000110111)$
74. $g^{(1)}(x) = 1 + x^1 + x^4, g^{(2)}(x) = 1 + x^2 + x^3 + x^4; y = (1110010111001111001100111011)$
75. $g^{(1)}(x) = 1 + x^1 + x^4, g^{(2)}(x) = 1 + x^2 + x^3 + x^4; y = (0011100101101111100010001011)$
76. $g^{(1)}(x) = 1 + x^1 + x^4, g^{(2)}(x) = 1 + x^2 + x^3 + x^4; y = (1101101000000110101100100111)$
77. $g^{(1)}(x) = 1 + x^1 + x^4, g^{(2)}(x) = 1 + x^2 + x^3 + x^4; y = (1110101111101110101011000000)$
78. $g^{(1)}(x) = 1 + x^1 + x^4, g^{(2)}(x) = 1 + x^2 + x^3 + x^4; y = (0101000101100010101011000011)$
79. $g^{(1)}(x) = 1 + x^1 + x^4, g^{(2)}(x) = 1 + x^2 + x^3 + x^4; y = (0000111000011111101111101111)$
80. $g^{(1)}(x) = 1 + x^1 + x^4, g^{(2)}(x) = 1 + x^2 + x^3 + x^4; y = (1010011010111100101001001111)$
81. $g^{(1)}(x) = 1 + x^1 + x^4, g^{(2)}(x) = 1 + x^2 + x^3 + x^4; y = (1010011001100011101110100001)$
82. $g^{(1)}(x) = 1 + x^1 + x^4, g^{(2)}(x) = 1 + x^2 + x^3 + x^4; y = (0000000001001101000010011100)$
83. $g^{(1)}(x) = 1 + x^1 + x^4, g^{(2)}(x) = 1 + x^2 + x^3 + x^4; y = (0100111101010001001010101100)$
84. $g^{(1)}(x) = 1 + x^1 + x^4, g^{(2)}(x) = 1 + x^2 + x^3 + x^4; y = (1101001011100111111101110000)$

85. $g^{(1)}(x) = 1 + x^1 + x^4, g^{(2)}(x) = 1 + x^2 + x^3 + x^4; y = (0011001000000001101010111001)$
86. $g^{(1)}(x) = 1 + x^1 + x^4, g^{(2)}(x) = 1 + x^2 + x^3 + x^4; y = (1101000001111010110111101011)$
87. $g^{(1)}(x) = 1 + x^1 + x^4, g^{(2)}(x) = 1 + x^2 + x^3 + x^4; y = (0111011111000101000010110001)$
88. $g^{(1)}(x) = 1 + x^1 + x^4, g^{(2)}(x) = 1 + x^2 + x^3 + x^4; y = (0000111011101101101011001111)$
89. $g^{(1)}(x) = 1 + x^1 + x^4, g^{(2)}(x) = 1 + x^2 + x^3 + x^4; y = (1110101101111001111111110101)$
90. $g^{(1)}(x) = 1 + x^1 + x^4, g^{(2)}(x) = 1 + x^2 + x^3 + x^4; y = (1101011001010110011110111011)$
91. $g^{(1)}(x) = 1 + x^3 + x^4, g^{(2)}(x) = 1 + x^1 + x^3 + x^4; y = (1110011100111000000010000100)$
92. $g^{(1)}(x) = 1 + x^3 + x^4, g^{(2)}(x) = 1 + x^1 + x^3 + x^4; y = (0100000000000000011101101111)$
93. $g^{(1)}(x) = 1 + x^3 + x^4, g^{(2)}(x) = 1 + x^1 + x^3 + x^4; y = (1110010001101100101111010000)$
94. $g^{(1)}(x) = 1 + x^3 + x^4, g^{(2)}(x) = 1 + x^1 + x^3 + x^4; y = (0000011110001000100011111111)$
95. $g^{(1)}(x) = 1 + x^3 + x^4, g^{(2)}(x) = 1 + x^1 + x^3 + x^4; y = (1111101000001111001110101111)$
96. $g^{(1)}(x) = 1 + x^3 + x^4, g^{(2)}(x) = 1 + x^1 + x^3 + x^4; y = (1110101101110111011000110100)$
97. $g^{(1)}(x) = 1 + x^3 + x^4, g^{(2)}(x) = 1 + x^1 + x^3 + x^4; y = (1110101000111110100000111100)$
98. $g^{(1)}(x) = 1 + x^3 + x^4, g^{(2)}(x) = 1 + x^1 + x^3 + x^4; y = (0110011111100000001010000010)$
99. $g^{(1)}(x) = 1 + x^3 + x^4, g^{(2)}(x) = 1 + x^1 + x^3 + x^4; y = (1110010000000011101100000000)$
100. $g^{(1)}(x) = 1 + x^3 + x^4, g^{(2)}(x) = 1 + x^1 + x^3 + x^4; y = (0000110101010101100000110000)$
101. $g^{(1)}(x) = 1 + x^3 + x^4, g^{(2)}(x) = 1 + x^1 + x^3 + x^4; y = (0001110100100011001001110011)$
102. $g^{(1)}(x) = 1 + x^3 + x^4, g^{(2)}(x) = 1 + x^1 + x^3 + x^4; y = (1101000010110000010100100011)$
103. $g^{(1)}(x) = 1 + x^3 + x^4, g^{(2)}(x) = 1 + x^1 + x^3 + x^4; y = (1111100000111001010100001100)$
104. $g^{(1)}(x) = 1 + x^3 + x^4, g^{(2)}(x) = 1 + x^1 + x^3 + x^4; y = (1000110110001011100010101111)$
105. $g^{(1)}(x) = 1 + x^3 + x^4, g^{(2)}(x) = 1 + x^1 + x^3 + x^4; y = (1101110001100001011000001110)$
106. $g^{(1)}(x) = 1 + x^3 + x^4, g^{(2)}(x) = 1 + x^1 + x^3 + x^4; y = (0001101011100100100101110011)$
107. $g^{(1)}(x) = 1 + x^3 + x^4, g^{(2)}(x) = 1 + x^1 + x^3 + x^4; y = (1110100100110111010111001100)$
108. $g^{(1)}(x) = 1 + x^3 + x^4, g^{(2)}(x) = 1 + x^1 + x^3 + x^4; y = (1101110101001010100001010011)$
109. $g^{(1)}(x) = 1 + x^3 + x^4, g^{(2)}(x) = 1 + x^1 + x^3 + x^4; y = (0010111111101111001001110010)$
110. $g^{(1)}(x) = 1 + x^3 + x^4, g^{(2)}(x) = 1 + x^1 + x^3 + x^4; y = (1110100110100111011010011110)$
111. $g^{(1)}(x) = 1 + x^3 + x^4, g^{(2)}(x) = 1 + x^1 + x^3 + x^4; y = (1110101111010110111010001111)$
112. $g^{(1)}(x) = 1 + x^3 + x^4, g^{(2)}(x) = 1 + x^1 + x^3 + x^4; y = (0000000100110001100110110011)$

113. $g^{(1)}(x) = 1 + x^3 + x^4$, $g^{(2)}(x) = 1 + x^1 + x^3 + x^4$; $y = (1110010010011010110111111011)$
114. $g^{(1)}(x) = 1 + x^3 + x^4$, $g^{(2)}(x) = 1 + x^1 + x^3 + x^4$; $y = (0011101100110101011111111111)$
115. $g^{(1)}(x) = 1 + x^3 + x^4$, $g^{(2)}(x) = 1 + x^1 + x^3 + x^4$; $y = (01010011011111110000111111100)$
116. $g^{(1)}(x) = 1 + x^3 + x^4$, $g^{(2)}(x) = 1 + x^1 + x^3 + x^4$; $y = (1101001110110010010000001100)$
117. $g^{(1)}(x) = 1 + x^3 + x^4$, $g^{(2)}(x) = 1 + x^1 + x^3 + x^4$; $y = (0010010001110011011110011111)$
118. $g^{(1)}(x) = 1 + x^3 + x^4$, $g^{(2)}(x) = 1 + x^1 + x^3 + x^4$; $y = (0011011101011100101101000000)$
119. $g^{(1)}(x) = 1 + x^3 + x^4$, $g^{(2)}(x) = 1 + x^1 + x^3 + x^4$; $y = (1111011111101111100001101111)$
120. $g^{(1)}(x) = 1 + x^3 + x^4$, $g^{(2)}(x) = 1 + x^1 + x^3 + x^4$; $y = (0111010011001010011100001101)$
121. $g^{(1)}(x) = 1 + x^3 + x^4$, $g^{(2)}(x) = 1 + x^1 + x^2 + x^4$; $y = (1001101101101100110010010111)$
122. $g^{(1)}(x) = 1 + x^3 + x^4$, $g^{(2)}(x) = 1 + x^1 + x^2 + x^4$; $y = (0100110101101101110001101100)$
123. $g^{(1)}(x) = 1 + x^3 + x^4$, $g^{(2)}(x) = 1 + x^1 + x^2 + x^4$; $y = (0000000011000101101011101101)$
124. $g^{(1)}(x) = 1 + x^3 + x^4$, $g^{(2)}(x) = 1 + x^1 + x^2 + x^4$; $y = (1101100001101011111101100000)$
125. $g^{(1)}(x) = 1 + x^3 + x^4$, $g^{(2)}(x) = 1 + x^1 + x^2 + x^4$; $y = (1101001110101111000110100000)$
126. $g^{(1)}(x) = 1 + x^3 + x^4$, $g^{(2)}(x) = 1 + x^1 + x^2 + x^4$; $y = (1101111011000011101100000011)$
127. $g^{(1)}(x) = 1 + x^3 + x^4$, $g^{(2)}(x) = 1 + x^1 + x^2 + x^4$; $y = (0011110000010010111010101100)$
128. $g^{(1)}(x) = 1 + x^3 + x^4$, $g^{(2)}(x) = 1 + x^1 + x^2 + x^4$; $y = (1101101101000100100100011110)$
129. $g^{(1)}(x) = 1 + x^3 + x^4$, $g^{(2)}(x) = 1 + x^1 + x^2 + x^4$; $y = (1010111011111111101011101110)$
130. $g^{(1)}(x) = 1 + x^3 + x^4$, $g^{(2)}(x) = 1 + x^1 + x^2 + x^4$; $y = (1110001111111101010111000000)$
131. $g^{(1)}(x) = 1 + x^3 + x^4$, $g^{(2)}(x) = 1 + x^1 + x^2 + x^4$; $y = (1101100000011101001001101100)$
132. $g^{(1)}(x) = 1 + x^3 + x^4$, $g^{(2)}(x) = 1 + x^1 + x^2 + x^4$; $y = (0011011000000100101001101111)$
133. $g^{(1)}(x) = 1 + x^3 + x^4$, $g^{(2)}(x) = 1 + x^1 + x^2 + x^4$; $y = (0011010110100101110000011011)$
134. $g^{(1)}(x) = 1 + x^3 + x^4$, $g^{(2)}(x) = 1 + x^1 + x^2 + x^4$; $y = (1001101110100001010011110111)$
135. $g^{(1)}(x) = 1 + x^3 + x^4$, $g^{(2)}(x) = 1 + x^1 + x^2 + x^4$; $y = (0000111000111010111111010000)$
136. $g^{(1)}(x) = 1 + x^3 + x^4$, $g^{(2)}(x) = 1 + x^1 + x^2 + x^4$; $y = (0000000000001010111010011110)$
137. $g^{(1)}(x) = 1 + x^3 + x^4$, $g^{(2)}(x) = 1 + x^1 + x^2 + x^4$; $y = (1111101101000001101010000111)$
138. $g^{(1)}(x) = 1 + x^3 + x^4$, $g^{(2)}(x) = 1 + x^1 + x^2 + x^4$; $y = (0000011110100110101101000111)$
139. $g^{(1)}(x) = 1 + x^3 + x^4$, $g^{(2)}(x) = 1 + x^1 + x^2 + x^4$; $y = (1100001011111001001101110000)$
140. $g^{(1)}(x) = 1 + x^3 + x^4$, $g^{(2)}(x) = 1 + x^1 + x^2 + x^4$; $y = (1110000000101101011000011101)$

141. $g^{(1)}(x) = 1 + x^3 + x^4$, $g^{(2)}(x) = 1 + x^1 + x^2 + x^4$; $y = (10011110010011100000000101011)$
142. $g^{(1)}(x) = 1 + x^3 + x^4$, $g^{(2)}(x) = 1 + x^1 + x^2 + x^4$; $y = (1110101110010001111100000000)$
143. $g^{(1)}(x) = 1 + x^3 + x^4$, $g^{(2)}(x) = 1 + x^1 + x^2 + x^4$; $y = (1100100011111010000110011001)$
144. $g^{(1)}(x) = 1 + x^3 + x^4$, $g^{(2)}(x) = 1 + x^1 + x^2 + x^4$; $y = (1101110110101111111011101011)$
145. $g^{(1)}(x) = 1 + x^3 + x^4$, $g^{(2)}(x) = 1 + x^1 + x^2 + x^4$; $y = (0001001110000000010111010111)$
146. $g^{(1)}(x) = 1 + x^3 + x^4$, $g^{(2)}(x) = 1 + x^1 + x^2 + x^4$; $y = (1110001010101000110000110011)$
147. $g^{(1)}(x) = 1 + x^3 + x^4$, $g^{(2)}(x) = 1 + x^1 + x^2 + x^4$; $y = (0001000010101101101101000111)$
148. $g^{(1)}(x) = 1 + x^3 + x^4$, $g^{(2)}(x) = 1 + x^1 + x^2 + x^4$; $y = (1110001110100100100110011000)$
149. $g^{(1)}(x) = 1 + x^3 + x^4$, $g^{(2)}(x) = 1 + x^1 + x^2 + x^4$; $y = (1101100000100101100101011011)$
150. $g^{(1)}(x) = 1 + x^3 + x^4$, $g^{(2)}(x) = 1 + x^1 + x^2 + x^4$; $y = (1110010011000011001011110000)$