Started on	Tuesday, 14 September 2021, 10:05 AM
State	Finished
Completed on	Tuesday, 14 September 2021, 10:10 AM
Time taken	4 mins 22 secs
Marks	1.00/1.00
Grade	**10.00** out of 10.00 (**100%**)

Question 1

Correct

Mark 1.00 out of 1.00

The following figure represents the first two stages of a carry-lookahead adder. The inputs to the adder are X $(x_1 x_0)$ and Y $(y_1 y_0)$. The notations c_1 and c_2 denote the carry-out from the two stages. Let us assume that an AND or an OR gate takes one unit of time to complete its operation. At time $T = 0$ unit, the inputs are set as $X = 01$ and $Y = 10$. At time $T = 5$ units, a new set of inputs are set as $X = 11$ and $Y = 01$. In this above scenario, which of the following represents the correct set of values of c_2 at ($T = 5$ units, $T = 6$ units, $T = 7$ units, and $T = 8$ units).
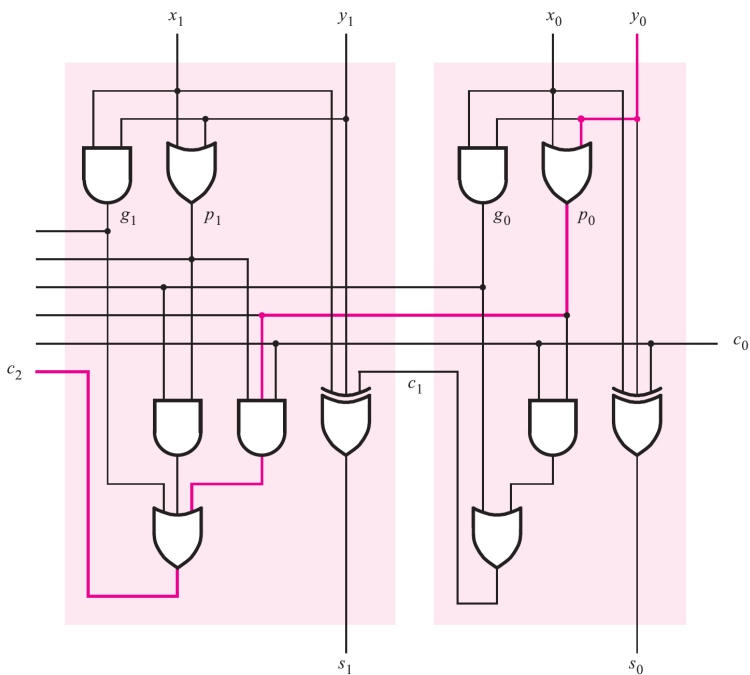
Select one:

- ○ 0, 1, 1, 1
- ○ 0, 0, 1, 1
- ◉ 0, 0, 0, 1 ✓
- ○ None of the given options
- ○ 1, 0, 0, 1

Your answer is correct.

The correct answer is: 0, 0, 0, 1

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