Started on	Friday, 25 February 2022, 1:50 PM
State	Finished
Completed on	Friday, 25 February 2022, 1:54 PM
Time taken	4 mins 11 secs
Marks	2.00/4.00
Grade	**5.00** out of 10.00 (**50**%)

Question **1**

Complete

Mark 1.00 out of 1.00

Two 1's with a carry-in of 1 are added using a ripple carry adder. What are the outputs?

- a. 1,1
- b. 0,1
- c. 1,0
- d. 0,0

Question **2**

Complete

Mark 0.00 out of 1.00

For X= (A ⊕ B) C + (A ⊕ B) C & Y = AB + (A ⊕ B) C, choose the correct option.

- a. Are the expressions for the carry look ahead adder
- b. Are the expressions for the Full subtractor
- c. Are the expressions for the ripple carry adder
- d. None of the mentioned

Question **3**

Complete

Mark 0.00 out of 1.00

What is true for the look ahead carry adder?

a. All of the mentioned

b. **They work by creating two signals P and G known to be Carry Propagator and Carry Generator.**

c. **To reduce the computation time, there are faster ways to add two binary numbers by using carry lookahead adders**

d. **The carry propagator is propagated to the next level whereas the carry generator is used to generate the output carry ,regardless of input carry.**

Question **4**

Complete

Mark 1.00 out of 1.00

A half adder is implemented with XOR and AND gates. A full adder is implemented with two half adders and one OR gate. The propagation delay of an XOR gate is twice that of an AND/OR gate. The propagation delay of an AND/OR gate is 1.2 microseconds. A 4-bit ripple-carry binary adder is implemented by using full adders.What is the total propagation time of this 4-bit binary adder in microseconds.

a. **19.5 ms**

b. **19.2 ms**

c. **19.8 ms**

d. **20 ms**

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