

2009 Qualifying Exam Questions

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1. What is the difference between a combinational and a sequential circuit?
2. Consider a ripple carry adder with an End Around Carry (i.e., last carry out fed back into first carry in). Is this a combinational or a sequential circuit? Under what circumstances?
3. Given an arbitrary circuit with feedback loops, how will you analyze whether the circuit is combinational or not?
4. How will you perform static timing analysis for the ripple carry adder with End Around Carry feedback?
5. Can you extend such a static timing analysis methodology for general designs?