

TMA3 CIT292: Computer Laboratory I

1. The simplest among the counters is ____
Ans: **Modulo-n counter**
2. The DeMorgan's theorem $(x \cdot y)' = x' + y'$ states that ____
Ans: **when the AND product of two variables is inverted, this is the same as inverting each variable individually and then ORing them**
3. Asynchronous or ripple counters are counter circuits made from ____
Ans: **Cascaded J-K flip-flops**
4. A Boolean function is said to be in ____ form if a sum-of-products expression or a product-of-sums expression has at least one term that is not a minterm or a maxterms respectively
Ans: **Standard**
5. Resulting expression is no longer in a sum-of-products or product-of-sums format is said to be in a ____ Form
Ans: **Non-Standard**
6. Two switches connected in series give rise to the logical ____ operator
Ans: **AND**
7. Any Boolean function that is expressed as a sum of minterms, or as a product of maxterms is said to be in its ____ Form.
Ans: **Canonical**
8. The ____ has one input coming from the left and one output going to the right
Ans: **NOT**
9. ____ numbers can be used to represent string of bits
Ans: **All of the options**
10. The DeMorgan's theorem $(x + y)' = x' \cdot y'$ states that ____
Ans: **when the OR sum of two variables is inverted, this is the same as inverting each variable individually and then ANDing these inverted variables**

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