Assignment 8

The due date for submitting this assignment has passed. As per our records you have not submitted this assignment.

Due on 2019-09-25, 23:59 IST.

1) Which of the following are true regarding FSM Encoding?
   - It reduces the area of an FSM
   - It is a necessary step in implementing an FSM
   - It converts a State Table to a Truth Table
   - It minimizes the number of states in an FSM
   
   No, the answer is incorrect.
   Score: 0
   Accepted Answers:
   - It reduces the area of an FSM
   - It is a necessary step in implementing an FSM
   - It converts a State Table to a Truth Table

2) Which of the following affect the area directly when the target architecture of FSM synthesis is a Programmable Logic Array?
   - Number of inputs to the FSM
   - Number of outputs from the FSM
   - Number of bits used in state encoding
   
   No, the answer is incorrect.
   Score: 0
   Accepted Answers:
   - Number of inputs to the FSM
   - Number of outputs from the FSM
   - Number of bits used in state encoding

3) Identification of common cubes during Finite State Machine encoding is relevant because it could lead to lower area.
   
   No, the answer is incorrect.
   Score: 0
   Accepted Answers:
   - TRUE

4) What is the literal count in the boolean expression: \(ab + c'b + d\)
   
   No, the answer is incorrect.
   Score: 0
   Accepted Answers:
   - 5
   - 6
   - 3
   - 4

5) Which of the following is a possible advantage of using 1-hot encoding for FSM states compared to using the minimum number of bits.
   - The state table would have fewer number of rows.
   - There is no need to decode the state, therefore combinational logic could be faster.
   - There are more parallel paths, and hence the circuit is faster.
   
   No, the answer is incorrect.
   Score: 0
   Accepted Answers:
   - There is no need to decode the state, therefore combinational logic could be faster.

6) The expression \((a'b' + b'c')\) has a higher literal count than the expression \((ab + bc')\).

   No, the answer is incorrect.
   Score: 0
   Accepted Answers:
   - FALSE