Assignment 11

Due on 2019-10-18, 23:59 IST.

The final two marks for submitting this assignment have passed.

As per our records, you have not submitted this assignment.

1) An minterm cover of a boolean function is always the same as its prime cover.
   - TRUE
   - FALSE
   Score: 0
   Accepted Answers: FALSE

2) Which of the following are true for the REDUCE operation used in logic optimization algorithms (ESPRIT/ESPRIT)?
   - The REDUCE operation increases the total number of minterms.
   - The REDUCE operation decreases the total number of minterms.
   - The REDUCE operation changes the total number of minterms.
   - The REDUCE operation reduces the size of the cube corresponding to one or more minterms.
   Score: 0
   Accepted Answers: FALSE

3) The REDUCE operation reduces the size of the cube corresponding to one or more minterms.
   Score: 0
   Accepted Answers: TRUE

4) All the elements of which of the following MUST be covered by the implicits when a valid REDUCE operation during logic optimization is performed?
   Score: 0
   Accepted Answers: TRUE

5) In the Logic Network representation used for multi-level logic optimization, the nodes could represent:
   - Primary inputs
   - Primary outputs
   - Local Boolean functions
   - None
   Score: 0
   Accepted Answers: TRUE

6) When we interchange the order of two adjacent variables in a REDUCE during shifting transformation, the effect of the transformation is limited to two levels.
   Score: 0
   Accepted Answers: TRUE

7) When a literal is tentatively changed to 'don't care' in the EXPAND operator of a 2-level logic optimization:
   - The resulting function is always valid.
   - The resulting function could be invalid.
   - The operation is always valid.
   - The operation sometimes does not result in any implicits becoming redundant.
   Score: 0
   Accepted Answers: FALSE

8) The instance of one of the implicits of a boolean function is the largest cube contained in both the implicits.
   Score: 0
   Accepted Answers: TRUE

9) Which of the following are true regarding the multi-level logic optimization transformations?
   - SUBSTITUTION is a special case of EXTRACT
   - EXTRACTION is a special case of SUBSTITUTION
   - EXTRACT is a special case of SUBSTITUTION
   - SUBSTITUTE is a special case of EXTRACT
   Score: 0
   Accepted Answers: TRUE

10) The REDUCE operator attempts to convert a non-prime implicant to a prime implicant.
    - TRUE
    - FALSE
    Score: 0
    Accepted Answers: TRUE