DEFINITIONS

Fault Based Testing: Testing is fault-based when its motive is to demonstrate the absence of pre-specified faults.

Test Case: It is the decimal equivalent of the binary value assignment of each literal for which the fault will be detected. For example, if the value of a = 0, b = 1, c = 0 and d = 1 detects the fault in a 4 variable specification, then the test case can be represented as 0101, which is equal to 5.

Test Set: The set of test cases is called Test Set.

True Point: The decimal equivalent of the binary value assignment of all the literals in the specification that makes the specification to evaluate to true.

Null: A test set is said to be Null if there are no test cases that will detect the fault.

Disjoint: Two test sets are said to be disjoint if the intersection of the two test sets results in Null, that is, if T₁ and T₂ are said to be disjoint, then T₁ \( \land \) T₂ = Null.

Mutant: A fault planted in a boolean specification.

NOTATIONS

\[ \begin{align*} 
\oplus & \quad \text{-} & \quad \text{Exclusive Or} & \quad F & \quad \text{-} & \quad \text{False} \\
/ & \quad \text{-} & \quad \text{Inhibition Transfer} & \quad \land & \quad \text{-} & \quad \text{And} \\
\Rightarrow & \quad \text{-} & \quad \text{Implication} & \quad \lor & \quad \text{-} & \quad \text{Or} \\
T & \quad \text{-} & \quad \text{True} & \quad - & \quad - & \quad \text{Negation} \\
\Leftrightarrow & \quad \text{-} & \quad \text{Equivalence} & \quad - & \quad - & \quad - 
\end{align*} \]