Notation

Logical Symbols

$\mathbb{T}$ is read as "True"
$\mathbb{F}$ is read as "False"
$\Rightarrow$ is read as "implies" or "If...then..." or "If... then it is necessarily true that..."
$\neg$ is read as "not"
$\wedge$ is read as "logical and"
$\oplus$ is read as "either ...or..."
$a \oplus b$ is read as "either a or b"
$==$ is read as "is equal to"
$\mathbb{T} \doteq s$ is read as "s is True"
: is read as "satisfying the condition"
Ω is read as "the Univeral Set"
$\varnothing$ is read as "the Empty Set"
a_i often denotes a "boolean statement"
b_i often denotes a "boolean statement"

Set Theory Symbols

S denotes a "set"
$\in$ is read as "in"
s often denotes an element (can be replaced with any lowercase symbol)
$\exists$ is read as "there exists"
$\nexists$ is read as "there does not exist"
$\forall$ is read as "for all"
$\cup$ is read as "union" (sometimes read as "and")
, is read as "and" (sometimes used as shorthand for $\cup$)
$\cap$ is read as "intersection"
$s_i \in S$ is read as "element s sub i in set S"

$\doteq$ is read as *is* or *is the* $(defining)$ *attribute of*

$\overset{a}{=}$ is read as *is* or *is an attribute of*

Function Symbols

x_i denotes "inputs"
y_i denotes "outputs"
$f[x_1, x_2, ...x_n] \rightarrow y_1, y_2, ...y_n$ is read as "function f with inputs $x_1, x_2, ...x_n$ outputs $y_1, y_2, ...y_n$"

Computation Symbols

$\leftarrow$ is read as "assignment"

Mathematical Symbols

$=$ is read as "equals"
$+$ is read as "plus"
$\perp$ is read as "orthogonal"