

Q.5 function XOR( $s_1, s_2$ ) return true or false  
Symbol  $\leftarrow$  proposition symbols in  $s_1$  &  $s_2$   
return TT\_CHECK\_ALL( $s_1, s_2, \text{symbol}, []$ )

function TT\_CHECK\_ALL( $s_1, s_2, \text{symbol}, \text{model}$ )  
return true or false

if EMPTY?(symbol) then  
    if PL\_TRUE?( $s_1, \text{model}$ ) then  
        if PL\_TRUE?( $s_2, \text{model}$ ) then  
            return false;  
        else  
            return true;  
    else

        if PL\_TRUE?( $s_2, \text{model}$ ) then  
            return true;

        else  
            return false;

else do

$P \leftarrow \text{First}(\text{symbol})$

$\text{rest} \leftarrow \text{Rest}(\text{symbol})$

    return TT\_CHECK\_ALL( $s_1, s_2, \text{rest}, \text{model} \cup \{P = \text{true}\}$ )

AND

    TT\_CHECK\_ALL( $s_1, s_2, \text{rest}, \text{model} \cup \{P = \text{false}\}$ ).