## Problem 7.1:

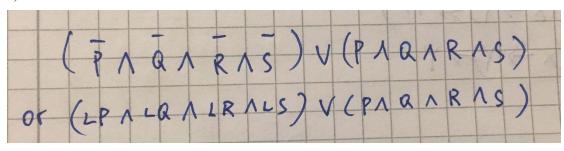
and: 
$$\Lambda(X,Y) := (X \rightarrow Y) \rightarrow (T(X \rightarrow Y))$$
  
or:  $V(X,Y) := (X \rightarrow Y) \rightarrow (T(X \rightarrow Y))$   
equivalence:  $(X,Y) := (X \rightarrow Y) \rightarrow (T(X \rightarrow Y))$   
exclusive or:  $(X,Y) := (T(X \rightarrow Y)) \rightarrow (T(X \rightarrow Y))$   
not and:  $T(X,Y) := T((X \rightarrow Y) \rightarrow TX)$   
not or:  $V(X,Y) := T((X \rightarrow Y) \rightarrow TX)$ 

## Problem 7.2:

a)

-	14						0 1		
	P	Q	R	S	TPVQ	TQVR	TRUS	7SVP	9
	0	0	0	0	1				
	0	0	0		1		1/0/1	0	0
	0	0	1	0			0		0
	0	0	1	(	0 1	1	1	0	0
18	0	1	0	0	1	0		1 2 3	0
	0	1	0	1	1	0		0	0
	0	1	1	0	1		0		0
	0	1	1		1	1		0	0
	1	0	0	0	0	- [ ] [ ]	1 49 1		0
	1	0	0		0		1		
	1	0	-	0	0	446	0	1111	0
	1	0	1	1	0	1	1		0
	1	1	0	0	1	0	1		0
1	1	1	0	1	1	0	1	1	0
	1	1	1	0	1	1	0		0
-	1	1		1	TIVE.		411	11	
-						7			10 20 20

There are only two interpretations satisfy  $\phi$ .



c)

