

Hurley, 13th edition, 6.3 Part I

1.

N	\supset	(N	\supset	N)
T	T	T	T	T
F	T	F	T	F

Tautologous

2.

(G	\supset	G)	\supset	G
T	T	T	T	T
F	T	F	F	F

Contingent

3.

(S	\supset	R)	\cdot	(S	\cdot	\sim	R)
T	T	T	F	T	F	F	T
T	F	F	F	T	T	T	F
F	F	T	F	F	F	F	T
F	F	F	F	F	F	T	F

Self Contradictory

4.

[(E	\supset	F)	\supset	F]	\supset	E
T	T	T	T	T	T	T
T	F	F	T	F	T	T
F	T	T	T	T	F	F
F	T	F	F	F	T	F

Contingent

5.

(\sim	K	\supset	H)	\equiv	\sim	(H	\vee	K)
F	T	T	T	F	F	T	T	T
F	T	T	F	F	F	F	T	T
T	F	T	T	F	F	T	T	F
T	F	F	F	F	T	F	F	F

Self-Contradictory

6.

(M	\supset	P)	\vee	(P	\supset	M)
T	T	T	T	T	T	T
T	F	F	T	F	T	T
F	T	T	T	T	F	F
F	T	F	T	F	T	F

Tautology

7.

[(Z	\supset	X)	\cdot	(X	\vee	Z)]	\supset	X
T	T	T	T	T	T	T	T	T
T	F	F	F	F	T	T	T	F
F	T	T	T	T	T	F	T	T
F	T	F	F	F	F	F	T	F

Tautology

8.

[(C	\supset	D)	\cdot	$\sim C]$	\supset	\sim	D
T	T	T	F	F	T	F	T
T	F	F	F	F	T	T	F
F	T	T	T	T	F	F	T
F	T	F	T	T	T	T	F

Contingent

9.

[X	\supset	(R	\supset	F)]	\equiv	[(X	\supset	R)	\supset	F]
T	T	T	T	T	T	T	T	T	T	T
T	F	T	F	F	T	T	T	T	F	F
T	T	F	T	T	T	T	F	F	T	T
T	T	F	T	F	T	T	F	F	T	F
F	T	T	T	T	T	F	T	T	T	T
F	T	T	F	F	F	F	T	T	F	F
F	T	F	T	T	T	F	T	F	T	T
F	T	F	T	F	F	F	T	F	F	F

Contingent

10.

[G	\supset	(N	\supset	\sim	G)]	\cdot	[(N	\equiv	G)	\cdot	(N	\vee	G)]
T	F	T	F	F	T	F	T	T	T	T	T	T	T
T	T	F	T	F	T	F	F	F	T	F	F	T	T
F	T	T	T	T	F	F	T	F	F	F	T	T	F
F	T	F	T	T	F	F	F	T	F	F	F	F	F

Self-Contradictory

11.

$[(Q \supset P) \cdot (\sim Q \supset R)] \cdot \sim (P \vee R)$												
T	T	T	T	F	T	T	T	F	F	T	T	T
T	T	T	T	F	T	T	T	F	F	T	T	F
T	F	F	F	F	T	T	T	F	F	F	T	F
T	F	T	T	T	F	T	T	F	F	T	T	F
F	T	T	T	T	F	F	F	F	F	T	T	F
F	T	F	F	T	F	F	T	F	F	F	T	F
F	T	F	T	T	F	F	T	F	F	F	T	F

Self-Contradictory

12.

$[(H \supset N) \cdot (T \supset N)] \supset [(H \vee T) \supset N]$												
T	T	T	T	T	T	T	T	T	T	T	T	T
T	T	T	T	F	T	T	T	T	T	F	T	T
T	F	F	F	T	F	T	F	T	T	T	F	F
T	F	F	F	F	T	T	F	T	T	T	F	F
F	T	T	T	T	T	T	T	F	T	T	T	T
F	T	T	T	F	T	T	T	F	F	T	T	T
F	T	F	F	T	F	F	F	F	F	T	F	F

Tautology

13.

$[U \cdot (T \vee S)] \equiv [(\sim T \vee \sim U) * (\sim S \vee \sim U)]$														
T	T	T	T	T	F	F	T	F	F	F	F	T	F	T
T	T	T	T	F	F	F	T	F	F	F	F	T	F	T
T	T	F	T	T	F	T	F	T	F	F	T	F	F	T
T	F	F	T	T	F	F	T	T	T	T	T	F	T	F
F	F	T	T	T	F	F	T	T	T	T	T	F	T	F
F	F	T	T	F	F	T	T	T	T	T	T	F	T	F
F	F	F	T	T	F	T	F	T	T	T	T	F	T	F

Self-Contradictory

14.

{[(G	.	(N)	⊃	(H)	.	[(G	⊃	(H)	⊃	P)]	⊃	(N	⊃	P)
T	T	T	T	T	T	T	T	T	T	T	T	T	T	T
T	T	T	T	T	F	T	T	T	F	F	T	T	F	F
T	T	T	F	F	F	T	F	F	T	T	T	T	T	T
T	T	T	F	F	F	T	F	F	T	F	T	T	F	F
T	F	F	T	T	T	T	T	T	T	T	T	F	T	T
T	F	F	T	T	F	T	T	F	F	F	T	F	T	F
T	F	F	T	F	T	T	F	F	T	F	T	F	T	F
F	F	T	T	T	T	F	T	T	T	T	T	T	T	T
F	F	T	T	T	F	F	T	T	F	F	T	F	T	F
F	F	T	T	F	T	F	T	F	T	T	T	T	F	T
F	F	T	T	T	T	F	T	T	F	F	T	T	T	T
F	F	F	T	T	T	F	T	T	T	T	T	F	T	F
F	F	F	T	T	F	F	T	T	F	F	T	F	T	F
F	F	F	T	F	T	F	T	T	T	T	T	F	T	F
F	F	F	T	T	T	F	T	F	F	F	T	T	T	F

Tautology

15.

[(F	V	E)	.	(G	v	H)]	≡	[(G	.	E)	v	(F	.	H)]
T	T	T	T	T	T	T	T	T	T	T	T	T	T	T
T	T	T	T	T	T	F	T	T	T	T	T	T	F	F
T	T	T	T	F	T	T	T	F	F	T	T	T	T	T
T	T	T	F	F	F	F	T	F	F	T	F	T	F	F
T	T	F	T	T	T	T	T	T	F	F	T	T	T	T
T	T	F	T	T	T	F	F	T	F	F	F	T	F	F
T	T	F	T	F	T	T	T	F	F	F	T	T	T	T
T	T	F	F	F	F	F	T	F	F	F	F	T	F	F
F	T	T	T	T	T	T	T	T	T	T	T	F	F	T
F	T	T	T	F	T	T	F	F	F	T	F	F	F	F
F	T	T	F	F	F	F	T	F	F	T	F	F	F	T
F	F	F	F	T	T	T	T	T	F	F	F	F	F	T
F	F	F	F	F	T	F	T	T	F	F	F	F	F	T
F	F	F	F	F	F	F	T	F	F	F	F	F	F	F

Contingent