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$\{["I", "T", "t"]\} \{["F", "f"]\} \{["I", "T", "f"]\} \{["F", "t"]\}$

## 1 Interpretation

	$\circ$
$I$	$\{F\}$
$T$	$\{T\}$
$F$	$\{T\}$
$t$	$\{T\}$
$f$	$\{T\}$

$\wedge$	$I$	$T$	$F$	$t$	$f$
$I$	$\{I, t\}$	$\{I, t\}$	$\{f\}$	$\{I, t\}$	$\{f\}$
$T$	$\{I, t\}$	$\{I, t\}$	$\{f\}$	$\{I, t\}$	$\{f\}$
$F$	$\{f\}$	$\{f\}$	$\{f\}$	$\{f\}$	$\{f\}$
$t$	$\{I, t\}$	$\{I, t\}$	$\{f\}$	$\{I, t\}$	$\{f\}$
$f$	$\{f\}$	$\{f\}$	$\{f\}$	$\{f\}$	$\{f\}$

$\vee$	$I$	$T$	$F$	$t$	$f$
$I$	$\{I, t\}$	$\{I, t\}$	$\{I, t\}$	$\{I, t\}$	$\{I, t\}$
$T$	$\{I, t\}$	$\{I, t\}$	$\{I, t\}$	$\{I, t\}$	$\{I, t\}$
$F$	$\{I, t\}$	$\{I, t\}$	$\{f\}$	$\{I, t\}$	$\{f\}$
$t$	$\{I, t\}$	$\{I, t\}$	$\{I, t\}$	$\{I, t\}$	$\{I, t\}$
$f$	$\{I, t\}$	$\{I, t\}$	$\{f\}$	$\{I, t\}$	$\{f\}$

	$\neg$
$I$	$\{I, \mathbf{t}\}$
$T$	$\{F\}$
$F$	$\{T\}$
$\mathbf{t}$	$\{\mathbf{f}\}$
$\mathbf{f}$	$\{I, \mathbf{t}\}$

$\rightarrow$	$I$	$T$	$F$	$\mathbf{t}$	$\mathbf{f}$
$I$	$\{I, \mathbf{t}\}$	$\{I, \mathbf{t}\}$	$\{\mathbf{f}\}$	$\{I, \mathbf{t}\}$	$\{\mathbf{f}\}$
$T$	$\{I, \mathbf{t}\}$	$\{I, \mathbf{t}\}$	$\{\mathbf{f}\}$	$\{I, \mathbf{t}\}$	$\{\mathbf{f}\}$
$F$	$\{I, \mathbf{t}\}$	$\{I, \mathbf{t}\}$	$\{I, \mathbf{t}\}$	$\{I, \mathbf{t}\}$	$\{I, \mathbf{t}\}$
$\mathbf{t}$	$\{I, \mathbf{t}\}$	$\{I, \mathbf{t}\}$	$\{\mathbf{f}\}$	$\{I, \mathbf{t}\}$	$\{\mathbf{f}\}$
$\mathbf{f}$	$\{I, \mathbf{t}\}$	$\{I, \mathbf{t}\}$	$\{I, \mathbf{t}\}$	$\{I, \mathbf{t}\}$	$\{I, \mathbf{t}\}$

## 2 Schemas of $\Sigma_{->}$

Size: 5

r2

$$\frac{\varphi \rightarrow \psi, \circ((\varphi \rightarrow \psi)) \quad ; \quad \varphi \rightarrow \psi}{\quad ;}$$

r9

$$\frac{\psi \quad ;}{\varphi \rightarrow \psi \quad ;}$$

r10

$$\frac{\quad ;}{\varphi \rightarrow \psi, \varphi \quad ;}$$

r26

$$\frac{\varphi \rightarrow \psi, \varphi \quad ;}{\psi \quad ;}$$

r28

$$\frac{\varphi \quad ;}{\psi \quad ; \quad \varphi \rightarrow \psi}$$

## 3 Schemas of $\Sigma_{and}$

Size: 5

$$\frac{\text{r3}}{\varphi \wedge \psi, \circ((\varphi \wedge \psi)) \ ; \ \varphi \wedge \psi} \ ;$$

$$\frac{\text{r11}}{\varphi \wedge \psi \ ; \ \varphi \wedge \psi}$$

$$\frac{\text{r12}}{\varphi, \psi \ ; \ \varphi \wedge \psi \ ;}$$

$$\frac{\text{r23}}{\varphi \wedge \psi \ ; \ \varphi \ ;}$$

$$\frac{\text{r27}}{\varphi \wedge \psi \ ; \ \psi \ ;}$$

#### 4 Schemas of $\Sigma_{neg}$

Size: 8

$$\frac{\text{r1}}{\ ; \ \neg\varphi, \varphi}$$

$$\frac{\text{r4}}{\neg\varphi, \circ\varphi, \varphi \ ; \ ;}$$

$$\frac{\text{r5}}{\neg\varphi, \varphi \ ; \ ; \ \varphi}$$

$$\frac{\text{r6}}{\circ\neg\varphi \ ; \ \neg\varphi, \varphi \ ; \ ;}$$

$$\frac{\text{r13}}{\ ; \ \neg\varphi, \varphi \ ; \ \neg\varphi \ ;}$$

$$\begin{array}{c}
\text{r14} \\
\frac{}{\neg\varphi, \circ\varphi \ ;} \\
\text{r15} \\
\frac{}{\neg\varphi, \varphi \ ;} \\
\text{r16} \\
\frac{}{\circ\neg\varphi \ ; \ \varphi}
\end{array}$$

## 5 Schemas of $\Sigma_{or}$

Size: 5  
r7

$$\frac{\circ((\varphi \vee \psi)), \varphi \vee \psi \ ; \ \varphi \vee \psi}{;}$$

$$\begin{array}{c}
\text{r20} \\
\frac{\varphi \ ;}{\varphi \vee \psi \ ;}
\end{array}$$

$$\begin{array}{c}
\text{r21} \\
\frac{\psi \ ;}{\varphi \vee \psi \ ;}
\end{array}$$

$$\begin{array}{c}
\text{r24} \\
\frac{}{\varphi, \psi \ ; \ \varphi \vee \psi}
\end{array}$$

$$\begin{array}{c}
\text{r25} \\
\frac{\varphi \vee \psi \ ;}{\varphi, \psi \ ;}
\end{array}$$

## 6 Schemas of $\Sigma_o$

Size: 5  
r8

$$\frac{\circ\varphi \ ;}{\ ; \ \circ\varphi}$$

$$\begin{array}{c} \text{r17} \\ \hline \phantom{\circ \circ \varphi} ; \\ \circ \circ \varphi \ ; \end{array}$$

$$\begin{array}{c} \text{r18} \\ \phantom{\circ \varphi} ; \ \circ \varphi \\ \hline \circ \varphi \ ; \end{array}$$

$$\begin{array}{c} \text{r19} \\ \hline \phantom{\circ \varphi} ; \\ \circ \varphi \ ; \ \varphi \end{array}$$

$$\begin{array}{c} \text{r22} \\ \hline \phantom{\varphi} ; \\ \varphi \ ; \ \circ \varphi \end{array}$$