

conditional-ifthenelse^{11,40}

$\forall T, V:\text{Type}, A, B:(T \rightarrow \mathbb{B}), f:(\{x:T \mid \uparrow(A(x))\} \rightarrow V), g:(\{x:T \mid \uparrow(B(x))\} \rightarrow V).$
 $(\lambda x.\text{if } A(x) \text{ then } f(x) \text{ else } g(x) \text{ fi})$
 $=$
 $[\lambda x.\uparrow(A(x))? f : g]$
 $\in \{x:T \mid (\uparrow(A(x)) \vee (\uparrow(B(x))))\} \rightarrow V$