I!

T@c

1	$A \rightarrow B$	hypothesis
2	$\neg A \rightarrow C$	hypothesis
3	$A \lor \neg A$	Law of Excluded Middle

4	A	assumption (want $B \lor C$)	A	assumption (want $B \lor C$)
5	B	$\rightarrow$-elim (lines 1 and 4)	B	$\rightarrow$-elim (lines 1 and 4)
6	$B \lor C$	$\lor$-intro (line 5)	$B \lor C$	$\lor$-intro (line 5)

7	$A \rightarrow (B \lor C)$	$\rightarrow$-intro (lines 4–6)

8	$\neg A$	assumption (want $B \lor C$)	$\neg A$	assumption (want $B \lor C$)
9	C	$\rightarrow$-elim (lines 2 and 9)	C	$\rightarrow$-elim (lines 2 and 9)
10	$B \lor C$	$\lor$-intro (line 9)	$B \lor C$	$\lor$-intro (line 9)

11	$\neg A \rightarrow (B \lor C)$	$\rightarrow$-intro (lines 8–10)
12	$B \lor C$	Proof by cases (lines 3, 7, and 12)