A register cell is to be designed for an 8-bit register \( A \) that has the following register transfer functions:

\[
\begin{align*}
C_0 &: B \leftarrow A \lor B \\
C_1 &: B \leftarrow A \land \overline{B}
\end{align*}
\]

Find optimum logic using AND, OR, and NOT gates for the \( D \) inputs to the \( D \) flip-flop in the cell.