1. INITIALLY $\delta_1(i) = \pi_i\, b_i(o_1), \psi_1(i) = 0$ for $1 \le i \le N$,

2. $\delta_t(j) = \max\limits_{1 \le i \le N} [\delta_{t-1}(i)\, a_{i,j}]\; b_j(o_t)$,
   $\psi_t(j) \rightarrow prev = \psi_{t-1}(\operatorname{argmax}\limits_{1 \le i \le N} [\delta_{t-1}(i)\, a_{i,j}])$ for $t = 2, \ldots, T$ and $1 \le j \le N$,

3. FINALLY $q_T^* = \operatorname{argmax}\limits_{1 \le i \le N} [\delta_T(i)]$, trace back $q_t^* = \psi_{t+1}(q_{t+1}^*) \rightarrow prev$ for $t = T-1, T-2, \ldots, 1$
   with optimal decoding $Q^* = \{q_1^*, q_2^*, \ldots, q_T^*\}$.