Let V_n be a Markov process and let $W_n = h(V_n)$ for some function h. Which of the following statements are true?

i. W_n is a Markov process for all choices of h.

ii. W_n is a Markov process for some choices of h.

iii. W_n is not a Markov process for any choice of h.

iv. If $V_n = (X_n, Y_n)$ where X_n and Y_n are a POMP, and $h(X_n, Y_n) = X_n$ then W_n is a Markov process.

v. If $V_n = (X_n, Y_n)$ where X_n and Y_n are a POMP, and $h(X_n, Y_n) = Y_n$ then W_n is a Markov process.

A: i,iv,v
B: ii,iv
C: ii,v
D: iii
E: Some combination other than those listed above