Identity element in (Z_5, X_5) over 2x2 non singular matrix is $\begin{bmatrix} 1 & 0 \\ 0 & 1 \end{bmatrix}$.

Inverse of A must satisfy $A \otimes_5 B = \begin{bmatrix} 1 & 0 \\ 0 & 1 \end{bmatrix}$

Checking By options

$$A = \begin{bmatrix} 2 & 3 \\ 2 & 4 \end{bmatrix}$$

a). $B = \begin{bmatrix} 3 & -3 \\ 0 & 2 \end{bmatrix}$ $\quad A \otimes_5 B = \begin{bmatrix} 1 & 0 \\ 1 & 2 \end{bmatrix} \neq I$

b). $B = \begin{bmatrix} 2 & 1 \\ 4 & 1 \end{bmatrix}$, $\quad A \otimes_5 B = \begin{bmatrix} 1 & 0 \\ 0 & 1 \end{bmatrix} = I$

c). $B = \begin{bmatrix} 3 & 5 \\ 5 & 4 \end{bmatrix}$, $\quad A \otimes_5 B = \begin{bmatrix} 1 & 2 \\ 1 & 1 \end{bmatrix} \neq I$

d). $B = \begin{bmatrix} 3 & 2 \\ 3 & 4 \end{bmatrix}$, $\quad A \otimes_5 B = \begin{bmatrix} 0 & 1 \\ 3 & 0 \end{bmatrix} \neq I$

option a), c), d) are correct.