⑤ $f_5(A, B) : F, T, F, T$

    T for inputs:

        TF and FF

$f_6(A, B) : T, F, T, T$

    T for inputs:

        TT, FT, FF   T Inputs

$f_1(A, B) : T, F, F, F$ $\Rightarrow$ TT

$f_2(A, B) : F, T, F, F$ $\Rightarrow$ TF

$f_3(A, B) : F, F, T, F$ $\Rightarrow$ FT

$f_4(A, B) : F, F, F, T$ $\Rightarrow$ T

for $f_5(A, B)$: we want T for TF, FF

    TF corresponds to $f_2(A, B)$

    FF corresponds to $f_4(A, B)$

Therefore,

$$f_5(A, B) = f_2(A, B) + f_4(A, B)$$

for $f_6(A, B)$: we want TT, TF, FF

TT corresponds to $f_1(A, B)$

FT corresponds to $f_3(A, B)$

FF corresponds to $f_4(A, B)$

    Therefore,

$$f_6(A, B) = f_1(A, B) + f_3(A, B) + f_4(A, B)$$