7. $(A \uparrow B)$ is equivalent to $(\overline{A \cdot B})$ (NAND)

$(A \downarrow B)$ is equivalent to $(\overline{A + B})$ (NOR)

Given the expression:

$$(A \uparrow A) \downarrow (B \uparrow B)$$

$(A \uparrow A) = \overline{A \cdot A} = \overline{A}$

$(B \uparrow B) = \overline{B \cdot B} = \overline{B}$

$((A \uparrow A) \downarrow (B \uparrow B))$:

$\overline{\overline{A \cdot B}} = A + B$ → De Morgan's law

$(A \uparrow A) \downarrow (B \uparrow B) = A + B$

$(A \downarrow A) \uparrow (B \downarrow B)$:

$(\overline{A} \downarrow \overline{A}) = \overline{A + A} = A$

$(\overline{B} \downarrow B) = \overline{B + B} = B$

$(\overline{A} \downarrow \overline{A}) \uparrow (\overline{B} \downarrow \overline{B}) = \overline{\overline{A} + B} = A \cdot B$

↓

De Morgan's law

Therefore,

$$\boxed{(A \uparrow A) \downarrow (B \uparrow B) = (\overline{A} \downarrow \overline{A}) \uparrow (\overline{B} \downarrow \overline{B})}$$