Solve:

1) $\int -2\csc(-x)\cot(-x)\,dx =$

$u = -x$

$\frac{du}{dx} = -1$

$dx = -du$

$-2\int \csc u \cot u \cdot -du$

$2\int \csc u \cot u \, du$

$-2\csc u + C$

$\boxed{-2\csc(-x) + C}$

2) $\int \cos(-4x)\,dx =$

$u = -4x$

$\frac{du}{dx} = -4$

$dx = \frac{-du}{4}$

$-\int \cos u \cdot \frac{-du}{4}$

$\frac{1}{4}\int \cos u \, du$

$\frac{1}{4}\sin u + C$

$\boxed{\frac{1}{4}\sin(-4x) + C}$

3) $\int -3\csc(-5x)\cot(-5x)\,dx =$

$u = -5x$

$\frac{du}{dx} = -5$

$dx = \frac{-du}{5}$

$-3\int \csc u \cot u \cdot \frac{-du}{5}$

$\frac{3}{5}\int \csc u \cot u \, du$

$-\frac{3}{5}\csc u + C$

$\boxed{-\frac{3}{5}\csc(-5x) + C}$

4) $\int -2\sec^2(x + 2)\,dx =$

$\boxed{-2\tan(x+2) + C}$

5) $\int -3\sin(x + 2)\,dx =$

$\boxed{3\cos(x+2) + C}$

6) $\int 2\csc(x + 2)\cot(x + 2)\,dx =$

$\boxed{-2\csc(x+2) + C}$

7) $\int \csc^2(-4x + 2)\,dx =$

$u = -4x + 2$

$\frac{du}{dx} = -4$

$dx = \frac{-du}{4}$

$\int \csc^2 u \cdot \frac{-du}{4}$

$-\frac{1}{4}\int \csc^2 u \, du$

$\frac{1}{4}\cot u + C$

$\boxed{\frac{1}{4}\cot(-4x+2) + C}$

8) $\int 3\sec(-4x - 4)\tan(-4x - 4)\,dx =$

$u = -4x - 4$

$\frac{du}{dx} = -4$

$dx = \frac{-du}{4}$

$-3\int \sec u \tan u \cdot \frac{-du}{4}$

$\frac{3}{4}\int \sec u \tan u \cdot du$

$\frac{3}{4}\sec u + C$

$\boxed{\frac{3}{4}\sec(-4x-4) + C}$