

## Convert Binary into Decimal Number

$$\begin{aligned}10011 &= 1 \times 2^4 + 0 \times 2^3 + 0 \times 2^2 + 1 \times 2^1 + 1 \times 2^0 \\ &= 1 \times (2 \times 2 \times 2 \times 2) + 0 \times (2 \times 2 \times 2) + 0 \times (2 \times 2) + 1 \times 2 + 1 \times 1 \\ &= 1 \times 16 + 0 \times 8 + 0 \times 4 + 2 + 1 \\ &= 16 + 0 + 0 + 3 \\ &= 19\end{aligned}$$