ASYNCHRONOUS COUNTER DESIGN STEPS/PROCEDURES

a. **Determine the # of FFs needed to support the counting sequence's highest #.**

$$2^n - 1 \geq \text{Highest \#}$$

b. **Determine what states you want to toggle FROM → TO.**

Example:

0 → 5
000 → 101

c. **Build a truth Table.**

d. **Simplify logic using a K-Map.**

e. **Implement the design on the basic Asynchronous Counter Circuit.**

f. **Draw the Timing Diagram (If Needed).**