Bender-Williamson’s book sections:

Unit CL: Sections 1, 2, 3, Unit Fn: Sections 1, 2, 3, Unit DT: Sections 4.

Topics:

1. Basic Induction.

2. Counting:
   - Selecting $k$ objects from $n$ objects
   - Distributing $n$ objects among $k$ groups.
   - Number of functions.
   - Inclusion-Exclusion Principle.

3. Binomial Theorem

4. Recurrence Relation: Guess the answer to recurrence relations. Proving that the answer to a recurrence relation is correct.

Practice Problems:

1. All the exercises from the Bender-Williamson Book in the relevant chapters.

2. All assignment and quiz problems

3. Midterm Practice paper.