The final exam is cumulative. In particular, the exam will focus on the topics listed below.

1. Functions and Graphs (Ch 1)
   (a) parametric relations, inverse relations, determining whether a relation represents a function
   (b) transformations of basic graphs
   (c) composition of functions, domain of composite functions
2. Polynomial, Power, and Rational Functions (Ch 2)
   (a) linear functions and models: interpret slope and intercept, make predictions
   (b) polynomials: real and complex zeros, x and y-intercepts, end behavior
   (c) power functions and models: verbal description, basic shape of graphs, make predictions
   (d) graphs of rational functions: local extrema, end behavior asymptotes, vertical asymptotes
3. Exponential, Logistic, and Logarithmic Functions (Ch 3)
   (a) exponential growth (vs linear), constant percentage of increase/decrease
   (b) logistic growth and models: predictions, limit to growth
   (c) basic graphs of exponential and logarithmic functions
   (d) using logarithms to re-express data and find power function models
   (e) orders of magnitude
4. Trigonometric Functions (Ch 4 and 5.1-5.3)
   (a) solving right triangles
   (b) using the unit circle to evaluate all six trig functions
   (c) sinusoidal models: interpret amplitude, period, obtain formula from graph
   (d) solving equations involving trig functions

The problems on the exam will be similar to problems on the in-class exercises and the in-class exams. I recommend that you thoroughly understand those problems. You may also find the review problems in the book to be helpful. You can take a look at review sheets for the in-class exams to see what kind of problems I recommend studying.