University of Connecticut Department of Mathematics Math 5660 Advanced Financial Math Spring 2009 Final Examination May 1, 2009 (due back May 8, 2009 5 PM)

Please answer any 6 of the following 7 questions. Do not work with any other person, but you may use any of your own notes or any printed or web source. Show all derivations and give the reasons that justify your steps. Please put your name on all pages submitted.

The questions are all exercises from the textbook:

- (1) Exercise 1.7, plus answer one more sub-question:
 - (iv) Why does the result not violate the Dominated Convergence Theorem 1.4.9?
- (2) Exercise 2.8
- (3) Exercise 3.4 (see the errata pages posted on the syllabus for a misprint)
- (4) Exercise 4.6
- (5) Exercise 4.8
- (6) Exercise 5.4 (see the errata pages posted on the syllabus for several misprints)
- (7) Exercise 6.1