Problems for Assignment 4 Due Friday, October 30, 2015 Total Points : 100

Assigned Problems. Do the five problems listed below from the Karatzas and Shreve textbook. Problems denoted with a "*" have answers given in the textbook. You will not get credit for simply copying in these answers. Each problem is worth 20 points.

 $\cdot 3.3.14^*$ (page 156), 3.3.23 (page 162), 3.3.31 (page 167), 3.3.32 (pages 167-168), 3.3.36 (page 168).

Things to Read and Understand. Please read carefully the following items, as you are responsible for understanding them (if not necessarily replicating the proofs)

- \cdot Propositions 3.3.21 and 3.3.22 on the Bessel process.
- \cdot The proof of Theorem 3.3.26.
- \cdot The proof of Theorem 3.3.28.
- \cdot The proof of Theorem 3.4.2 when the Z process may degenerate.