Electrical & Computer ENGINEERING

18-799: Evolutionary Algorithms in Engineering Optimization
Fall Semester, 2014

Homework #3

Assigned: 9/19/2014
Due: 10/6/2014 at 14:00 US Pacific Time, 17:00 US Eastern Time

Six problems as follows. Remember that if you use materials from outside sources, state where you got it.

1. (4pts) Eiben & Smith Textbook 6-1

2. (4pts) Eiben & Smith Textbook 6-2

3. (2pts) Eiben & Smith Textbook 9-4

4. (8pts) Eiben & Smith Textbook 9-6

5. (2pts) Eiben & Smith Textbook 14-1

Programming Assignment

6. (30pts) Eiben & Smith Textbook 6-5

- You may use any programming language (Java, Python, C++, Matlab, etc.)
- Unlike previous programming assignments, for this one you have the option of using a GA/GP library. A list of such libraries can be found at the following links:
  - Bottom of http://www.cs.gmu.edu/~eclab/projects/ecj/
  - https://github.com/DEAP/deap

  You are free to use any other library also.
- You will still need to submit you code with the assignment
- We will run you code so you must: 1) include compilation and run instructions; 2) seed your random number generator with the value 1234 so that we will get the same results
- Graphs and results should be attached in the submitted PDF and reproducible by running the code
- You may re-use any code you wrote from the first two programming assignment