Nick Troccoli Final Exam

CS 106A August 18, 2017

**CS 106A Final Exam – Answer Booklet**

This is an open-textbook, closed-note exam. You may refer to the course textbooks, but you may not use any printed paper resources or computing devices of any kind, including calculators, laptops, cell phones, or other devices.

Unless otherwise indicated, you will be graded on functionality only – but good style helps graders understand what you were attempting. **Remember that you must write the solution to a problem in that problem’s provided answer pages in the answer booklet. Answers to a problem outside of its designated answer pages in the answer booklet, or written in this booklet, will receive no credit.** You do not need to write any import statements. Unless otherwise specified, you may write helper methods to implement required behavior if you like. Do not abbreviate code; you must write out all code that is part of your answer. If you want to utilize code found in the textbook, you may cite the page number and code sample without rewriting it. Note whether a question requires you to write a complete Java program, or just individual methods.

You have 3 hours to complete this exam. We recommend looking over all problems before starting. **Remember that you do not have to complete problems in order.**

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| Last Name: | \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |
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| Section Leader / Grader: | \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |

I accept the letter and spirit of the Honor Code. I have never given nor received any unpermitted aid on this exam, and promise to address/report anyone who fails to follow the Honor Code. I also promise to write more neatly than I have in my entire life.

(sign here) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

TABLE OF CONTENTS

Chapter 1: Designing a spaceship……………35 points

Chapter 2: alien communications……………25 points

Chapter 3: decoding messages………………..25 points

Chapter 4: analyzing alien dna……………….25 points

Chapter 5: space rocks!.………….……………....25 points

Chapter 6: images of outer space......……….45 points

TOTAL: 180 points

**Problem 1, Part 1 (Part 2 is on later pages)**

**Problem 1, Part 2**

**Problem 2, Part 1 (scratch paper and Part 2 are on later pages)**

1. **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**
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**Problem 2, Part 2**

**RESPONSE #1 (INHERITANCE):**

**RESPONSE #2 (PRIMITIVES AND OBJECTS):**

**Problem 3, Part 1 (Part 2 is on later pages)**

**Problem 3, Part 2**

**Problem 4**

**Problem 5**

**Problem 6, Part 1 (Part 2 is on later pages)**

**Problem 6, Part 2**