CS 521: Data Structures and Algorithms 1
Fall 2011-2012 (Homework 4)

1. (10 Pts.) Exercise 24.1-3 on page 654 of CLRS text book, 3rd edition. [24.1-3 on page 591 of CLRS 2nd edition]

2. (15 Pts.) Exercise 24.1-6 on page 655 of CLRS text book, 3rd edition. [24.1-6 on page 592 of CLRS 2nd edition]

3. (10 Pts.) Exercise 24.2-4 on page 658 of CLRS text book, 3rd edition. [24.2-4 on page 595 of CLRS 2nd edition]

4. (15 Pts.) Exercise 24.3-6 on page 663 of CLRS text book, 3rd edition. [24.3-4 on page 600 of CLRS 2nd edition]

5. (15 Pts.) Exercise 25.1-8 on page 692 of CLRS text book, 3rd edition. [25.1-8 on page 628 of CLRS 2nd edition]

6. (10 Pts.) Exercise 25.2-5 on page 699 of CLRS text book, 3rd edition. [25.2-5 on page 635 of CLRS 2nd edition]

7. (15 Pts.) Exercise 25.2-9 on page 700 of CLRS text book, 3rd edition. [25.2-9 on page 635 of CLRS 2nd edition]

8. (10 Pts.) Exercise 15.4-5 on page 397 of CLRS text book, 3rd edition. [15.4-5 on page 356 of CLRS 2nd edition]

9. (**Extra Credit**) (25 Pts) Problem 15-1 on page 404 of CLRS text book, 3rd edition.
   15-1 Longest simple path in a directed acyclic graph:
   Suppose that we are given a directed acyclic graph $G = (V, E)$ with realvalued edge weights and two distinguished vertices s and t. Describe a dynamic programming approach for finding a longest weighted simple path from s to t. What does the subproblem graph look like? What is the efficiency of your algorithm?