

CS314 Algorithms Design and Analysis, August-Nov 2016
Problems on Dynamic Programming, String matching and Flows
(Chapters 15, 32 and 26 of CLRS 3rd edition)

Hand in solutions to the first *five* problems on or before October 7, 2016 and the next *seven* problems on or before 24th October, 2016. The solution you hand in must be your own even if you discussed with others. If you do discuss with others or use other resources, please acknowledge. If you copy or let someone copy, then your answer sheet and further submissions (including tests) will NOT be evaluated.

1. Exercise 15.3-4 (Greedy is not optimal for matrix chain multiplication)
2. Problem 15-1 (Longest simple path in a dag)
3. Problem 15-5 (Edit distance)
4. Exercise 32.4-7 (cyclic rotation: Page 1012)
5. Exercise 32-1 (repetition factor: Page 1012)
6. Exercise 26.1-6 (two school children problem)
7. Exercise 26.1-7 (vertex capacities)
8. Problem 26-2 (Minimum path cover)
9. Exercise 26-4 (updating maxflow)
10. Exercise 26.2-11 (edge connectivity)
11. Exercise 26.3-4 (Hall's theorem)
12. Exercise 26.3-5 (matching in d-regular graphs)