Sample Midterm Study Guide, some questions will be discussed on Thurs 10/11 during review session

All three questions are compulsory and carry equal points

1. (Basics: sorting, order statistics, recursion) This question will be of the style:
   one or two of 2.3-3, 2.3-4, 2.3-5; 6.4-2, 6.4-3; 8.3-1,8.3-2,8.3-3,8.3-4; 9.1-1, 9.3-3, 9.3-5, 9.3-6, 9.3-8, 9.3-9; or
   one or two of the parts of 2-1,2-2,2-3; or
   one or two of the parts of 4-6, 4-7; or
   one or two of the parts of 6-1, 6-2; or
   one or two of the parts of 8-2, 8-3, 8-5(among a-d);
   one or two of the parts of 9-1, 9-2, 9-3
   or one or two questions involving some combination of the above concepts.

2. (Data structures: design, augmentation, (amortized) analysis) This question will be of the style:
   one or two of 12.1-3, 12.2-4,5,6,7,8,9; 12.3-2,3,5,6; 13.3-5, 13.4-7; 14.3-4,5,6; 17.1-1,2,3, 17.3-1,2,3,4,5,6,7; or
   one or two of the parts of 12-1,2; or
   one or two parts of 13-1,13-2; or
   one or two parts of 14-2; or
   one or two parts of 17-1,2; or
   or one or two questions involving some combination of the above concepts.

3. (Greedy, dynamic programing design techniques and graph algorithms) This question will be of the style:
   one or two of 15.2-2, 15.3-2,3;15.4-5; 16.2-2,3,4,5,7; 22.2-5,6,8; 22.4-2,3,4,5; 23.1-5,7,8,9,10; 24.2-4, 24.3-2,4,5,6,7,8; 25.6,8,9; 26.1-9, 26.2-4,6,8,9 or
   one or two parts of 15-5 or
   one or two parts of 22-1,2,3,4 or
   one or two parts of 23-1,3,4 or
   one or two parts of 25-1 or
   one or two parts of 26-1,2,3,4

or one or two questions involving some combination of the above concepts.