

## Data Structure and Algorithm II

### Homework #4-1

Due: 10am, Monday, May 16, 2011

#### ==== Homework submission instructions ====

- Submit the answers for writing problems through the CEIBA system (electronic copy) or to the TA in R204 (hard copy). Please write down your name and school ID in the header of your documents.
- Each student may only choose to submit the homework in one way; either all as hard copies or all through CEIBA except the programming assignment. If you submit your homework partially in one way and partially in the other way, you might only get the score of the part submitted as hard copies or the part submitted through CEIBA (the part that the TA chooses).
- If you choose to submit the answers of the writing problems through CEIBA, please combine the answers of all writing problems into only one file in the doc/docx or pdf format, with the file name in the format of “hw4-1-[student ID].{pdf,docx,doc}” (e.g. “hw4-1\_b98902010.pdf”); otherwise, you might only get the score of one of the files (the one that the TA chooses).
- For each problem, please list your references (they can be the names of the classmates you discussed the problem with, the URL of the information you found on the Internet, or the names of the books you read). The TA can deduct up to 100% of the score assigned to the problems where you don't list your references.

**Problem 1.** Read section 17.4 on the textbook. Then solve problem 17.4-2 on page 471.

**Problem 2.** Solve problem 17-1 on page 472. Key sentence: bit-reversal permutation swaps elements whose indices have binary representations that are the reverse of each other.

**Problem 3.** Solve problem 17-5 on page 476 in the textbook.