Exam Guidelines

CSE 2320 – Algorithms and Data Structures
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Answers

- Do not waste time stating things that do not directly answer the question.

- Stating things that are correct but do not answer the question will **<u>not</u>** get partial credit.

- Stating things that are incorrect and irrelevant may hurt your grade (I may still take points off if you say something that is irrelevant to the question but still wrong).

Numerical Calculations

- Numerical calculations do not need to be performed, as long as I see on paper an expression that if I just plug into a calculator will give me the right thing.

- However, important simplifications should be done. A very small list of examples:
  - $2^{\log N} = N$
  - $O(N^2 + \log N) = O(N^2)$

Running Time

- Running time by default means "**worst-case** running time".

- So, when we say "best running time complexity" we mean "best **worst-case** running time complexity", meaning the worst-case running time we get if we do the best algorithm/implementation possible.

Data Structure Definitions

- All data structures we refer to are as defined in the slides and the textbook.

- Do not refer any built-in data structures (such as lists, or strings) that already exist in the programming language you are using, or any built-in functions that already exist.
  - Unless we define them in the book or the slides or the code posted on the class website (for example, it is okay to use strcpy, strcmp, since they are defined in the book and the slides).

Code and Pseudocode:

- You are expected to read code that is given in C and understand it.

- You are expected to write code in C, Java, or pseudocode.

- If you choose to write code in Java, or pseudocode, the code must not use any built-in features of Java, or make pseudocode assumptions that make the solution fundamentally different than it would be in C.

- Code that would follow the C solution line by line (in terms of accessing and modifying array items, following and modifying pointers) would be fine.

Code and Pseudocode:

- I will refer to as "magic code" any line in your Java code or pseudocode that does things that cannot be done with a similar line of code in C. (e.g., sorting an array, finding the minimum element of an array). Magic code is not allowed in your answers.

- You are free to use in your code or pseudocode functions that are implemented in the textbook, in the slides, or in code posted on the website.
  - The question here is, how would I know that you using such a function? You need to use the exact same name, AND state clearly in your exam that this is a function defined in the textbook, the slides, or the posted code.

Code and Pseudocode:

- You do not have to:
  - Declare types of variables that you create.
  - Worry about allocation or deallocation (unless, of course, the question explicitly asks you to worry about those).

- However, you do have to worry about initialization of any variable that you use.
  - Don't just assume that the initial value of a variable would be the correct thing unless your code makes sure of that.