CMSC210 (Fall 2003) Take-Home Exercise Self-Evaluation Form

Module	C					
Your name						
Names of your collaborators (for any take-home and/or comprehensive exercise)						
List of exercises submitted on-time	Circle:	C1	C2	C3	C4	C5
List of exercises completed by this time	Circle:	C1	C2	C3	C4	C5
Approximate number of hours spent	hours (for all these exercises)					
Self-evaluation (between 0 and 10)		Adjustment by the instructor				

Self-evaluation instructions

For each of the following performance goals, **identify** relevant exercise(s). Then, **demonstrate** that you achieved the goal by reflecting on your answers and your responses to the instructor's comments.

Note: The instructor's comments on your exercises indicate areas you need to improve with respect to certain learning goals. To convince the instructor of your achievement, you will need to respond to them in a way clearly visible to the instructor. That is, without your response, the instructor will not adjust your grade to 10.

A convincing self-evaluation would refer to all of the notes under each performance goal.

1. Model a variety of real-world phenomena as mathematical structures.
    - This is the focus of Module C. So, you will need to discuss this goal sufficiently.
    - Identify the following structures in the take-home exercises and make sure that you understand all of them: operational, relational, structures like **Max**, **Strings**, or **Clock**, digraph, poset, Boolean Algebra, digraph, undirected graph, weighted graph, tree, language, FSA (when viewed as a structure).
    - To do this, you will also need to know how to represent structure components formally (focus of Module B, prerequisite for Module C).
2. Analyze whether a mathematical structure satisfies a collection of logical statements.
    - There are many examples where a *collection* of structures satisfies logical statements. Identify some of them.
3. Specify mathematical structures using logical statements.
    - We used this technique to specify a *collection* of structures (instead of a particular structure). In fact, this is how we defined many of the concepts (i.e., structures) introduced in Module C.
4. Analyze, distinguish, and relate mathematical structures with respect to their components and the properties associated with the components.
    - We compared structures many times. The strongest form of matching is "isomorphism." In many other cases, we compared structures based on the properties of relations/functions. Yet another form of comparison was finding equivalence between different types of structures.
5. Identify cases where (i) different set of logical statements satisfy the same mathematical structures, and (ii) a set of logical statements satisfies multiple mathematical structures including unintended ones.
    - The subgoal (ii) is inherent in the specification of collections of structures.
    - The subgoal (i) is discussed explicitly in, e.g., Unit C5.

~~6. Convince others that the modeling process is logically sound, using proofs and other methods of justification.~~