CSUS
COLLEGE OF ENGINEERING AND COMPUTER SCIENCE
Department of Computer Science

CSc 135
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COMPUTING THEORY & PROGRAMMING LANGUAGES

Study Guide for Final

Review the notes I distributed, the assignments and the solutions posted on SacCT as well as the examples in the notes. There are few things you will need to remember, however, memory alone will not help you. I intend to test your understanding, not your memory. You need to explain what you do, not let me figure out what I want to make of a bunch of unconnected equations or pictures.

Push-Down Automata

- Given a description of a language, build a PDA which accepts it
- Instantaneous description & Move
- Difference between top-down and bottom-up parsing

Review the examples in the notes and the exercises in the handouts

Logic Programming & Prolog

- First-order predicate calculus.
- Horn clauses
- Unification
- Resolution
- Given a series of clauses trace what Prolog does.
- Write a predicate that does ???.
- Given a set of rules, what do they do?
- Write a query using xxx (e.g. append only) to do ...
- Show how Prolog will search the first answer to a query using Resolution and Unification.

Turing Machines

- Definition
- Machines which accepts a particular language
- Machines which perform simple computations