

CptS 260 Midterm Study Guide

Fall, 2020

Exam is closed-book, closed-note, except for the "green card". No calculator, not even the "programmer's" calculator will be permitted.

1. Introduction

- levels of abstraction in computing
- data type sizes in bits
- hexadecimal representations

2. Instructions

- instructions \leftrightarrow hex digits
- instruction formats
- addressing modes
- instruction syntax
- pointer operations in assembly (count list elements)
- function calling and returning

3. Computer Arithmetic

- unsigned and signed representations and capacities
- IEEE floating point (8-bit)
- special floating point values (0, NaN, etc.)

4. Digital Logic

- logic gates
- translating Boolean equations into logic diagrams
- sum-of-products notation