Introduction to Computer Architecture

Due on Sept. 5

Please ask your questions and participate in the class discussion to understand the questions.

DRZ

You are expected to solve the homework questions individually. You may discuss the materials with others to enhance your understanding. However, **do not copy**. Follow the submission and grading policies. Show all steps with your solutions for full/partial points.

NAME & WSU ID: Total Points: 50

(2 points) Provide (i) your name & WSU ID and (ii) course & homework information.

- 1. (6x2 = 12 points) Discuss six important classes of computers. For each class, mention at least two notable features.
- 2. (16 points) Discuss the great ideas about computer architecture.
- 3. (5 points) Match from the great ideas about computer architecture to the following ideas from other fields:
  - a) Suspension bridge cables
  - b) Aircraft and marine navigation systems that incorporate wind information
  - c) Express elevators in buildings
  - d) Library reserve desk
  - e) Adding electromagnetic aircraft catapults (which are electrically powered as opposed to current steam-powered models), allowed by the increased power generation offered by the new reactor technology
- 4. (3x2 = 6 points) Discuss three major levels of program code.
- 5. (3x3 = 9 points) Discuss important components of a computer: CPU, memory, and Input / Output (IO) Devices.