# ICS 111 Practice Midterm

Clearly write your name on the **front** of this exam.

This exam is closed book, closed note, closed neighbor. No calculators or computers are allowed. There are a total of 50 points. Be sure to answer all parts of each question.

**Question 1** (5 points): Explain the difference between *high-level* languages and *machine* languages.

**Question 2** (5 points): What is an *algorithm*?

**Question 3** (10 points): Evaluate the following expressions. Write the value of *answer* next to the expression.

int answer = 7 + 4 / 2 – 1;

int answer = 9 / 2 + 8;

double answer = (7 – 3) % 5 + 2;

double answer = 9 / 2 + 8;

int answer = 10 / 2 \* 3 % 4 + 2;

double answer = 10 \* 2 % 3 – 4 / 2;

int answer = 10 \* (2 – 3) \* 4 + 2;

int answer = 10 % 2 + 3 / 4 \* 2;

double answer = 10 % 2 + 3 / 4 \* 2;

double answer = 7 – 4 \* (3 – 5);

**Question 4** (10 points): Use the following code to answer the following 2 questions.

int x;

if (x <= 25) { System.out.println(“foo”); }

else if(x > 25) { System.out.println(“bar”); }

if (!(x == 25)) { System.out.prinltn(“baz”); }

What is the output if *x* is equal to 25?

What is the output if *x* is equal to 26?

**Question 5** (10 points): Write a *for* loop that prints out the multiples of 4 between 3 and 38. (Recall n is a multiple of 4 if n % 4 == 0).

**Question 6** (10 points): Write a program that asks the user to enter their name and prints out “Hello <name>”, where <name> is the user’s name. You may use TextIO.getln() to read the string.