

Winter '12 CIS 122 Midterm Review

You may bring one page of notes, front and back.

You may bring a calculator but shouldn't need one.

Questions will be in short-answer format with partial credit for partial answers.

Questions will require you to read Python code.

You will not be asked to write Python code, but may be asked to write Python pseudocode (i.e., code that unambiguously describes your solution in the Python style but is not required to compile).

Topics:

- Variables: int, float, bool, str types, assignment, conversion between types, print function
- int and float operators: +, -, *, /, %, +=, -=, *=, /=, %=, string operators: +, *, precedence
- Boolean operators: <, <=, ==, >=, >, and, or
- Conditional statements: if, elif, else
- Looping: while, for, break, continue statements, range function
- Strings: strip, split, find, replace, lower, upper methods, string slicing
- Functions: defining, calling, return statement, when/why to use

Sample questions:

1. [10] Consider the following code:

```
sum = 0
for i in range(1, 10, 2):
    if i % 3 == 0:
        sum += i
print sum
```

What is printed by the above code? Why?

2. [5] Consider the following code:

```
s = 122
print s.find("1")
```

The code will result in an error. Why?

3. [10] Write Python pseudocode for a function which takes a string as an argument and returns a copy of the string with all 'a' and 'A' characters replaced by 'b' characters.

4. [10] Write Python pseudocode for a function which takes a string as an argument and returns a copy of the string with every third character capitalized.