**Exam 1: Review Lecture**

*(The list is not complete)*

1. Pseudo Code
2. Expressions:

3\*4, 3\*\*2, 3//2, 3/2, x\*y, “3.2//2.0”

* 1. Operands: Literals-primitive data types
     1. int : 3, 4, 6
     2. float: 4.2, 3.5
     3. str: “cs220”, ‘uw’
     4. bool: True, False
  2. Operators
     1. mathematical: \*, /, //, %, +
     2. comparison: ==, <, <=, >, >=
     3. bool: not, and, or

if 3//2 == 1 and 2\*\*3 == 8:

1. Variables:

correct: var\_name, \_name, \_name\_;

incorrect: name’2, name?, var-name, 3\_name

1. Functions
   1. def
      1. def addition(x, y):

return x+y

ii. def addition(x = 10, y = 5):

return x+y

* 1. parameters
  2. return value
  3. arguments
     1. positional
     2. keyword
     3. default value

addition (4, 5)

1. Modules
   1. import whole module
      1. import math
      2. math.sqrt(10)
   2. import a particular function from a module
      1. from math import sqrt
      2. sqrt(10)
   3. import all functions to avoid using attribute operator (dot operator)
      1. from math import \*
2. Scope
   1. local: the variables defined inside function can be used locally unless global keyword is used.

x = 200

def printing():

print(x)

x = 100

def printing():

x = 100

print(x)

* 1. global

1. Conditionals
   1. Chained
      1. if x > 10:
      2. elif x > 5:
      3. else:
   2. Nested

if condition1:

if condition2:

* 1. Refactoring

1. Iterations
   1. for
   2. while
      1. break
      2. continue