**COS 120 FINAL EXAM STUDY TOPICS**

**About 10 Questions - File Processing**

Results of open in different situations

Read,readline,readlines and for

Write

Formatting

**About 5 Questions - Image Processing**

Basic image processing methods

Pixel manipulation

Passing functions as parameters

**About 20 Questions - Recursion**

Walking recursions!!

Identify base case

Identify recursive case

Walk with various starting values

Know the difference between recursive function and nested function calls

Walking recursions!!

**About 20 Questions - conditional statements, lists, lists of lists, dictionaries**

Conditional statement equivalences (writing it different ways)

List methods (know them)

Operations (methods) performed on a sample list of lists

Dictionary of dictionaries of dictionaries

Retrieval of all levels from nested dictionary

Applying dictionary methods

Looping through any level of the nested dictionary

**About 10 Questions - looping through lists and lists of lists**

**About 10 questions - strings and characters**

String methods (know them)

chr and ord

String slicing of all kinds (forward, backward, completions, etc.)

String indexing

Concatenation

**About 10 Questions – Critical Thinking Skills**

“Sayings”

Basic Definitions

**About 20 Questions - OOP**

Declaring a class

Relationship between a class and an object

Declaring an object

Instance

Method

Constructor

Accessor

Mutator

Object reference within a method

Purpose of OOP