

## COSC 120 – Exam 3 Review Questions

1.) Give the switch statement that will take in a number (1-12) and output the corresponding month. For example, if I give you 10 it should print out October.

2.) Write JAVA code using switch statements for the code below.

```
String comment;
System.out.print("Enter the case you want: ");
int number = input.nextInt();
if (number ==0)
    comment = "You've selected 0";
else if (number ==1)
    comment = "You've selected 1";
else
    comment = "You've selected a number greater than 1";
System.out.println(comment);
```

3.) Write a description of what this Java code does.

```
int counter = 10;
for (int i=1; i <counter; i++){
    if (i<counter)
        System.out.println("We still have" + (counter-i) + "more loops");
    else
        System.out.println("This is the last loop");
}
```

4.) Write Java code for the above example using a WHILE loop.

5.) Give the code that will ask for a number from the user and then sum the numbers from 1 to the number provided by the user. Use a while loop for this.

6.) Create the method to get 10 grades from the user and compute the average of those grades. Use a for loop for this.

7.) What are the areas involved in the Theoretical Foundations of computer science?

8.) Discuss the problems that exist in attempting to solve the Travelling Salesman Problem.

9.) What a four things to consider when designing a game?

10.) Describe one of the things we discussed in class that makes a good game and why.

11.) Create the class for a grading program. This program should keep track of the number of As, Bs, Cs, Ds and Fs inputted by the user as well as the average grade and the number of grades entered. You should create individual methods to output the letter

grades and the average (2 methods), an input method that will get a number of grades as dictated by the user, a menu method that simply prints out the menu choices and a main method. Your menu choices should be:

- 1 – Letter Grades
- 2 – Average
- 3 – Number of Grades Entered
- 4 – Grade Entry
- 0 – Quit

12.) Create a method that will get 15 numbers from the user and print the largest and smallest number entered.

13.) What import statement do I need for Random?

14.) Give the code to print the odd numbers from 1 to 10000.

15.) Give the code to declare an instance of the random number generator and instantiate said object. Use that to get a random integer from 1 to 6.