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.) Give an example of a string constant.

4.) Given the following for loop, convert it into a while loop:

```
for(int i = 0; i<10; i++){
        System.out.println(i + " iterations remaining");
}
```

5.) Which method gives you the length of a string?

6.) Can you have two strings S1 and S2 and compare the two using S1 == S2? If not, what should you use?

7.) Give the code to walk through a string S1 and print out each letter in that string.

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

9.) Create a method to determine the summation from 1 to n, where n is an integer passed as a parameter. The sum should be returned from the method, not printed.

10.) Give the code to declare a StringTokenizer for the string "This is a test".

11.) What is the code to print out each token in a given StringTokenizer st?

12.) What is the difference between a bit and a qbit?

13.) What is the Dining Philosopher's problem?

14.) Describe 3 facets of Artificial Intelligence and what they entail.

15.) What is the domination problem for a graph?

16.) What are some of the ethical concerns that exist in Artificial Intelligence?

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

18.) What are the areas involved in the Theoretical Foundations of computer science? Describe them.

19.) Describe an area of the Operating System that we discussed in class.

20.) Of the four areas of computer science discussed in class over the past few weeks, which one interests you the most and why?