**Name: Tianqi Yang**

**Name of person to my left:**

**Name of person to my right:**

**Quiz 6**

*This quiz is closed book, closed note, closed technology. You are required to clear all items off your desk, including phones and pencil cases. Please place all items in your bag and on the floor. You must do your own work on this quiz without aid from any person or anything. If you are found to violate any of these rules you will automatically receive a 0 on this quiz and will be reported to the administration. You have 10 minutes to complete this quiz.*

**1. Write the following for loop as the equivalent while loop (output should be identical when both loops are run):**

For Loop: While Loop:

int count =0;

for (int count = 0; count < 5; count++) while(count<5 ){

{ cout << “hi” << count <<endl;

cout << “hi” << count << endl; count++;

} }

**2. What will be the output to the console after running the following for loop?**

for (int i = 0; i < 5; i++)

{

if (i == 1 || i == 3 || i == 5)

cout << “$”;

else

cout << “!”;

}

Answer :a

1. !$!$!
2. $!$!$
3. !$!$!$
4. $!$!$!
5. !$$$!

**3. Write one line of code to read in a sentence from the user input into a string variable named *sentence*:**

string sentence;

cout << “Please enter a sentence: ”;

getline(cin,sentence);

**4. What will be the result of running the following loop.**

**Result of running the loop: infinite loop**

string repeat = “y”

while (repeat == “y”)

{

cout << “Playing an exciting game!\n”;

cout << “Want to play again? (y/n): ”;

cin >> repeat;

}

**Correct the problem by adding some code to the above loop**

**5. Which of the following loops will correctly print out the each character in the string *line*:**

Answer : d

1. for (int i = 1; i <= line.length(); i++)

   cout << line[i];

1. for (int i = 0; i <= line.length(); i++)

   cout << line[i];

1. for (int i = 1; i < line.length(); i++)

   cout << line[i];

1. for (int i = 0; i < line.length(); i++)

   cout << line[i];

1. for (int i = 0; i < line.length()-1; i++)

   cout << line[i];

**6. What is the advantage of using a do-while loop instead of a while loop?**

***The do-while loop guarantees that:***

The program can at least run once and sometimes the do-while loop can reduce some progress.